# Interim Remedial Action Report

Saddle Rock Natural Area
Phase 1 IRA Construction Project
Wenatchee, Washington

*for*
**City of Wenatchee**

February 19, 2020

GeoEngineers
Earth Science + Technology

# Interim Remedial Action Report

Saddle Rock Natural Area
Phase 1 IRA Construction Project
Wenatchee, Washington

*for*
**City of Wenatchee**

February 19, 2020

GeoEngineers

523 East Second Avenue
Spokane, Washington 99202
509.363.3125

# Interim Remedial Action Report

## Saddle Rock Natural Area
## Phase 1 IRA Construction Project
## Wenatchee, Washington

**File No. 4296-008-01**

**February 19, 2020**

Prepared for:

City of Wenatchee
1350 McKittrick Street
Wenatchee, Washington 98807

Attention: Charlotte Mitchell

Prepared by:

GeoEngineers, Inc.
523 East Second Avenue
Spokane, Washington 99202
509.363.3125

Justin D. Orr
Staff Geologist

Nick E. Rohrbach
Senior Environmental Scientist

Dustin G. Wasley, PE
Principal Engineer

JDO:NER:DGW:tjh

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

# Table of Contents


**EXECUTIVE SUMMARY** ..... **ES-1**

**1.0 INTRODUCTION** ..... **1**

**2.0 SITE DESCRIPTION AND BACKGROUND** ..... **2**

2.1. Site Description and History ..... 2
2.2. Environmental Assessments ..... 3

**3.0 SITE-SPECIFIC CLEANUP CRITERIA** ..... **3**

**4.0 INTERIM REMEDIAL ACTION OBJECTIVES AND METHODS** ..... **4**

**5.0 INTERIM REMEDIAL ACTION** ..... **5**

5.1. Contractor Submittal Review ..... 5
5.2. Project Overview ..... 5
5.3. Temporary Erosion and Sediment Control (TESC) and Dust Control ..... 6
5.4. Clearing and Grubbing Activities ..... 6
5.5. Removal of Waste Rock ..... 6
5.5.1. SR-01 Excavation ..... 7
5.5.2. SR-02 Excavation ..... 8
5.5.3. SR-03 Excavation ..... 9
5.5.4. SR-08 Excavation ..... 9
5.6. Adit Closures ..... 10
5.7. Final Grading, Restoration and As-Built Surveying ..... 11

**6.0 INTERIM REMEDIAL ACTION RESULTS** ..... **11**

6.1. General ..... 11
6.2. Waste Rock Pile Results ..... 12
6.2.1. SR-01 ..... 12
6.2.2. SR-02 ..... 13
6.2.3. SR-03 ..... 14
6.2.4. SR-08 ..... 14
6.3. Statistical Distribution ..... 15
6.3.1. SR01 Data Distribution ..... 15
6.3.2. SR02 Data Distribution ..... 16
6.3.3. SR03 Data Distribution ..... 16
6.3.4. SR08 Data Distribution ..... 16
6.3.5. Discussion ..... 17
6.4. Close-In Samples ..... 17
6.5. XRF Data Quality ..... 18
6.5.1. XRF Duplicates Analysis ..... 18
6.5.2. XRF and Laboratory Correlation ..... 18
6.5.3. XRF Data Usability ..... 18
6.6. Laboratory Data Quality ..... 18

**7.0 CONCLUSIONS** ..... **18**

**8.0 LIMITATIONS** ..... **19**

9.0 REFERENCES ..... 20

## LIST OF TABLES

Table 1. Final Confirmation XRF Samples – Arsenic Summary Results
Table 2. Final Confirmation Soil Samples- Analytical Data Summary Results
Table 3. XRF Samples Duplicate Analysis

## LIST OF FIGURES

Figure 1. Vicinity Map
Figure 2. Site Plan
Figure 3. Excavation Limits – SR-01
Figure 4. Confirmation Sample Locations – SR-01
Figure 5. Excavation Limits – SR-02
Figure 6. Confirmation Sample Locations – SR-02
Figure 7. Excavation Limits – SR-03
Figure 8. Confirmation Sample Locations – SR-03
Figure 9. Excavation Limits – SR-08
Figure 10. Confirmation Sample Locations – SR-08

## APPENDICES

Appendix A. Site Photographs
Appendix B. XRF Raw Data Table
Appendix C. Analytical Laboratory Reports and Data Validation Documentation
Appendix D. Disposal Documentation
Appendix E. Site Restoration Materials Documentation
Appendix F. Department of Ecology Corrospondance
Appendix G. Decommissioning Documentation
Appendix H. Statistical Analysis

## EXECUTIVE SUMMARY

This Interim Remedial Action Report (Report) summarizes the Phase 1 Interim Remedial Action (IRA) construction project activities at the Saddle Rock Natural Area (Site) located in Wenatchee, Washington. The Site is owned and operated by the City of Wenatchee (City).

The Site was documented to have several mining claims, where waste rock was generated in select areas during previous mining explorations. Since 2011, the Washington State Department of Ecology (Ecology) and others have performed multiple investigations including a remedial investigation (RI) and feasibility study (FS) performed by others, a subsequent field study and technical memorandum by Ecology and supplemental data gap field work and technical memorandum by GeoEngineers. During these investigations, it was determined that background levels of arsenic were elevated above current unrestricted land use cleanup criteria set forth in the Washington State's Model Toxics Control Act (MTCA), and a Site-specific cleanup level for arsenic was established at 95 milligrams per kilogram (mg/kg). Four waste rock areas, identified as SR-01, SR-02, SR-03 and SR-08 were assessed for Phase 1 of the IRA. The remaining waste rock areas are planned to be addressed via alternative remedial approaches during Phase 2, scheduled to occur in 2020.

Phase 1 IRA construction activities began in September 2019 and concluded in November 2019. Construction activities included excavating waste rock with arsenic concentrations greater than the Site-specific cleanup level of 95 mg/kg from the waste rock pile areas. In addition, soil samples were collected and analyzed for barium, iron, lead, manganese, mercury, selenium and silver to confirm that these other constituents of concern (COC) were less than the current MTCA unrestricted land use cleanup criteria. After excavation, the disturbed areas were graded to match existing topography to facilitate and control stormwater drainage, and most disturbed areas were hydroseeded. A hand held x-ray fluorescence (XRF) instrument collected soil confirmation sample analytical results of the final excavation limits, which were used to document removal of waste rock material.

In some areas, the vertical extents of the waste rock excavations extended deeper than anticipated in the Phase 1 IRA Design Plans and Specifications for the Site. Select waste rock excavation areas also extended laterally, which further added waste rock volume during excavation. Approximately 7,889 cubic yards (cy) (approximately 11,802 tons) of waste rock were excavated from the Site and transported for off Site disposal at Waste Management's (WM) Greater Wenatchee permitted Subtitle D landfill.

In our opinion, the cleanup action at the Phase 1 Site area was conducted in general compliance with the plans and specifications which fulfill the requirements and objectives set forth in the final Phase 1 IRA Design Report, Plans and Specifications and is protective of human health and the environment.

***This Executive Summary should be used only in the context of the full report for which it is intended.***

## 1.0 INTRODUCTION

This Interim Remedial Action Report (Report) presents results of the Phase 1 Interim Remedial Action (IRA) performed at the Saddle Rock Natural Area (Site) located at 1130 Circle Street in Wenatchee, Washington as shown in Vicinity Map, Figure 1. This Report describes a summary of the construction work performed by the City-selected contractor (DW Excavating, Inc. of Davenport, Washington [DWE]), provides final topographic survey as-built drawings, descriptions of field oversight and sampling, final validation analytical laboratory/XRF analyses results, and the volume of waste rock excavated and disposed off site.

The Saddle Rock Natural Area is documented with eight areas of interest (AOIs) originally delineated by others (2013a and 2013b) as part of their Remedial Investigation/Feasibility Study (RI/FS). The AOIs were identified as SR-01 through SR-08, where waste rock was generated from historical mining or road development disturbed by naturally mineralized areas. Since 2011, the Washington State Department of Ecology (Ecology) and others have performed multiple investigations. Additional field investigation and analysis were completed by Ecology after the RI/FS were completed, which are detailed in the Technical Memorandum, "Gold Knob Prospect (aka Saddle Rock Park), Establishing Site Cleanup Levels and Areas," (Ecology 2018a). The additional data collected by Ecology identified data gaps in the RI/FS documents. GeoEngineers was selected by the City in early January 2019 to complete the next phases of work for the Site and developed a Sampling and Analysis Plan (SAP) to be implemented during the subsequent Ecology-requested data gap assessment, waste rock pile delineations, and confirmation soil sampling during the Phase 1 and 2 IRA construction (GeoEngineers 2019a). In April 2019, GeoEngineers (2019b) conducted a supplemental data gap field sampling event to address data gaps identified in the Ecology (2018a) Technical Memorandum. The supplemental data gap analysis identified pile-specific background arsenic concentrations, refined later extents of waste rock piles, identified downslope areas requiring cleanup, and established a Site-wide cleanup goal of 95 milligrams per kilogram (mg/kg) total arsenic.

The final Phase 1 IRA Design Report and final Plans/Specifications utilized information from previous reports and the recent data gap analysis for the removal of select waste rock piles, in the Phase 1 area, where arsenic concentrations were greater than the Site-specific cleanup criterion for arsenic (GeoEngineers 2019c). The Phase 1 area consisted of waste rock piles SR-01 through SR-03 and SR-08 (the lower four waste rock areas), as shown in Site Plan, Figure 2. Phase 2 design and construction will address waste rock piles SR-04 and SR-05, and is targeted to be completed in 2020. The phasing occurred to accommodate budget restraints. Phase 1 occurred first since the lower four waste rock piles contain the majority of the contaminated materials at the Site and are significantly easier to reach than the Phase 2 waste rock pile areas. SR-06 was removed from the AOIs since there was no evidence of mining activities, and elevated naturally-occurring arsenic was widespread throughout the area. Additional screening may be completed as part of the Phase 2 efforts to further document naturally-occurring arsenic upslope from SR-06. Pile SR-07 was also removed from the AOI list, as elevated concentrations of arsenic were documented immediately upslope from the shallow exploration, and the downslope area appeared to be naturally occurring (e.g., not a result of mining activities). A map of the Site showing approximate waste rock pile locations, access/haul roads and contractor staging areas is presented in Figure 2.

The Site is formally identified by Ecology as Facility Site ID (FSID) No. 22496 and Cleanup Site ID No. 11610. The Site is subject to the requirements of the AO dated October 25, 2018. Per an Agreed Order (AO) number DE 15823 (Ecology 2018b) between the City of Wenatchee (City) and Ecology, the City is responsible for implementing the scope of work (SOW) outlined by Ecology in the AO. The City has accepted the role as the

primary party responsible for compliance with the AO. The City is retaining ownership of the Site before and after the Phase 1 and 2 IRA are conducted. The following are Phase 1 IRA objectives for the Site:

- **Task 1—IRA Preliminary Design and Cost Estimate**. This task had multiple components with two main purposes: (1) document that the IRA proposed is consistent with the City and Ecology expectation outlined in the AO; and (2) provide sufficient detail for developing a preliminary design report and detailed cost estimate for implementation. This task was completed between winter and spring 2019, with input and concurrence by the City and Ecology.
- **Task 2—IRA Design Sampling and Analysis**. Task 2 assessed and addressed the primary data gaps identified from Ecology's Technical Memorandum, *Gold Knob Prospect (aka Saddle Rock Park), Establishing Site Cleanup Levels and Areas* (Ecology 2018a). Our field screening program was specific to arsenic, since this is the primary constituent of concern (COC) for the Site. As part of this task, we developed a SAP, under separate cover, for the background/downslope soils assessment, for further downslope characterization, waste rock pile delineation and procedures for confirmation sampling during the Phase 1 IRA implementation. The results of the field screening, laboratory data, and overall source pile delineation were summarized into an IRA Design SAP Report submitted to Ecology and the City (GeoEngineers 2019b). Task 2 activities were generally completed in spring 2019.
- **Task 3—IRA Final Design**. Task 3 presented in the final IRA Design Report (GeoEngineers 2019c) built on the foundation of the IRA Preliminary Design in Task 1 and 2. The final IRA Design Report included plans and specifications appropriate for construction of Phase 1. Task 3 activities were generally completed between spring and summer 2019
- **Task 4—IRA Implementation**. The City amended GeoEngineers contract for the project on August 6, 2019 and requested the support of GeoEngineers in the implementation and oversight of the Phase 1 IRA construction. This task included pre-construction support services, IRA oversight, and preparation of this Report. Task 4 field activities were generally completed in late summer and fall 2019.
- **Task 5—State Environmental Policy Act (SEPA) Compliance Support**. The City prepared SEPA application documentation and it has been reviewed by GeoEngineers. SEPA documentation was submitted by the City to appropriate regulatory agencies for review and comment. A copy of the preliminary determination of non-significance and related documentation is presented in the final IRA Design Plan (GeoEngineers 2019c).

## 2.0 SITE DESCRIPTION AND BACKGROUND

This section provides a brief description of the pre-remediation conditions, historical operations and assessment activities conducted at the Site. For a more comprehensive description of the Site and history, refer to the Sampling and Analysis Plan (GeoEngineers 2019a).

### 2.1. Site Description and History

The Site is a local landmark in the Wenatchee Valley and has been a popular destination for recreation users for decades. In 2011, the City completed the purchase of the Site property with the assistance and support of the Chelan Douglas Land Trust (CDLT), Washington State Recreation Conservation Office and local citizens. The City dedicated the property as the Saddle Rock Natural Area on July 16, 2011.

The 325-acre property was previously owned by the Washington Department of Natural Resources (DNR) for over 100 years. Based on DNR records, it received small mining lease payments from 1891 to 1989. In connection with due diligence by others, a Phase I Environmental Site Assessment (ESA) indicated possible mining waste rock sites created during DNR ownership with total arsenic concentrations exceeding Model Toxic Control Act (MTCA) standards.

Decades of public use of the Site has also led to severe erosion problems and habitat deterioration.

### 2.2. Environmental Assessments

Ecology conducted an initial investigation of the Site in the Spring of 2011. Waste rock samples from six AOIs, along with soil samples from surrounding areas, were collected to compare the concentration of metals in waste rock to background concentrations. Analysis identified elevated total arsenic concentrations in the native materials and other areas were identified for further testing. Laboratory analysis of the materials confirmed total arsenic concentrations exceeding the MTCA standards.

In 2012, the City received an integrated planning grant from Ecology, through which an RI, cultural resources investigation and FS reports were prepared. The RI and FS reports identified and estimated 6,045 cubic yards (cy) of waste rock with metals concentrations exceeding MTCA standards (Hart Crowser 2013a and 2013b). The potential chemicals of concern (PCOCs) included arsenic, barium, iron, lead, manganese, mercury, selenium and silver. Total arsenic was detected above the initially-established background concentration of 14.4 mg/kg in all waste rock samples, whereas the other PCOCs were not always present at concentrations above draft screening criteria.

During the RI, composite sampling of "downslope" areas of the waste rock piles identified metals concentrations in excess of preliminary screening levels (Hart Crowser 2013a). It was believed at the time, shallow soils were impacted by ongoing erosion of waste rock downslope. The FS outlined a preferred alternative that included excavation, transportation and disposal of waste materials at a permitted, lined and monitored landfill, sealing any existing open former mining adits and completing surface restoration activities in the vicinity of each waste rock pile location (Hart Crowser 2013b).

GeoEngineers (2019b) assessed upslope and downslope areas identified during the RI and statistically compared arsenic results between the two. In general, arsenic data indicated there was no statistical difference between the downslope and upslope distributions at piles SR-01, SR-02 and SR-08. A vegetated downslope berm was delineated below the main waste rock pile at SR-03. The downslope berm at SR-03 appeared to be the result of human-induced alterations, but was not constructed from waste rock. The final IRA Design Report (GeoEngineers 2019c) utilized information from the FS and supplemental data gap analysis to develop the Phase 1 IRA Plans and Specifications for the removal of waste rock piles, in the Phase 1 area. The final IRA Design Report described logistical difficulties associated with the Site, worker health and safety requirements, excavation and construction activities associated with waste rock piles identified in Phase 1, transportation and disposal of waste materials, cultural and historical monitoring plan, sediment and erosion control, adit closures and final site restoration for Phase 1 IRA work.

## 3.0 SITE-SPECIFIC CLEANUP CRITERIA

GeoEngineers (2019b) performed an additional evaluation of each identified waste rock pile and background arsenic concentrations associated with mapped hydrothermally altered rocks within the Swauk

Formation mapped by Gresens (1983) during the April 2019 supplemental data gaps field sampling event. Background soil sample locations were identified upslope from waste rock piles and screened in the field with a hand held x-ray fluorescence (XRF) instrument to assess metals concentrations. A total of 97 XRF background soil samples from SR-01 through SR-05 and SR-08 were screened in the field by GeoEngineers.

XRF analysis of background total arsenic identified a mean concentration of 45.2 mg/kg, and the calculated 90$^{th}$ percentile was 95 mg/kg for total arsenic. Therefore, 95 mg/kg for total arsenic was established as the cleanup goal for the overall Site (Phase 1 and 2), not the original background concentration of 14.4 mg/kg established during the FS in 2013. Based on the heterogeneous formations and elevated total arsenic concentrations at various locations, 95 mg/kg represents a more reasonable cleanup goal, and better characterizes the varied background mineralization at the Site.

## 4.0 INTERIM REMEDIAL ACTION OBJECTIVES AND METHODS

The purpose of the Phase 1 IRA at the Site was to protect human health and the environment from potential exposure to contaminated waste rock related to mining activities at or near the ground surface. The specific IRA objectives are described in the AO and summarized below:

- Prevent direct contact, ingestion, inhalation or uptake of waste rock by human or ecological receptors.
- Prevent the potential of erosion to mobilize waste rock to adjacent properties.

The IRA objectives were accomplished by implementing the following general activities:

- Excavating waste rock material from piles SR-01 through SR-03 and SR-08 until the following remedial action objectives (RAOs) were met:
    - No visible waste rock remained;
    - The final topography was consistent with the estimated native topography;
    - Most confirmatory laboratory data were less than the site-specific 90$^{th}$ percentile background value of 95 mg/kg; and
    - The distribution of confirmatory data was consistent with the distribution of background data.
- Sealing mine adits with concrete and rebar ‘plugs’ or backfilling with native soil or clean borrow material.
- Grading remedial excavations to match existing topography and estimated native topography.
- Restoring waste rock piles and select disturbed areas with hydroseeding and bonded fiber matrix (BFM).

GeoEngineers monitored and documented Phase 1 IRA construction activities conducted by DWE, coordinated and communicated activities with the City and Ecology, obtained XRF and confirmation soil samples from excavated areas, and prepared necessary reporting documents.

## 5.0 INTERIM REMEDIAL ACTION

### 5.1. Contractor Submittal Review

GeoEngineers performed review of DWE's pre-construction submittals that were provided to the City, as described in the project Specifications, Division 01- General Requirements, Section 01 33 00 – Submittals. GeoEngineers provided review comments to the City and revised submittals were provided back to the City by DWE. The revised submittals met the minimum elements described in the above specification.

### 5.2. Project Overview

The Site was remediated under an AO (dated October 25, 2018) with regulatory oversight of project documents and construction activities by Ecology. In addition, Ecology reviewed and commented on the SAP, supplemental data gap analysis, Design Report, Plans and Specifications.

DWE was the City selected general contractor for the Phase 1 IRA construction. DWE conducted related mobilization and demobilization, clearing and grubbing, erosion and stormwater control, haul road/trail improvements, excavation, transport of excavated materials both on-site and off-site and post-excavation waste rock pile area restoration activities at the Site. Phase 1 IRA field activities began on September 18, 2019 and concluded on November 21, 2019.

Waste rock excavated from piles SR-01 through SR-03 and SR-08 generally consisted of light to dark brown, fine to coarse gravel with varying amounts sand, silt and occasional cobbles. Occasional large boulders and/or metal debris associated with mining activities were observed in most waste rock piles. Waste rock piles were excavated until the RAOs described in Section 4.0 were met.

Materials excavated from waste rock piles were quantified using pre- and post-construction surveys and weight tickets provided by WM. A summary of material excavated is included in the following Table I; remedial excavation limits and confirmation sample locations are presented in Figures 3 through 10. Soil samples were collected from the excavation limits to confirm the waste rock was removed as specified above. Soil sampling procedures are described in the SAP (GeoEngineers 2019a).

**TABLE I. SUMMARY OF EXCAVATED VOLUMES/TONNAGE**

| Location | Approximate Cubic Yards | Approximate Tonnage | Description | Disposition |
|---|---|---|---|---|
| SR-01 | 1,819 | - | Metals-impacted waste rock related to mining activities | Off-Site disposal at WM's Greater Wenatchee Subtitle D landfill |
| SR-02 | 3,627 | - | | |
| SR-03 | 1,963 | - | | |
| SR-08 | 480 | - | | |
| **Totals[1]** | **7,889** | **11,803[2]** | | |

Notes:

[1]The total waste hauled off site is the sum of the waste from SR-01 through SR-03 and SR-08.

[2]Individual waste rock pile tonnages could not be determined because the material was double-handled by DWE, and materials excavated varied in wet weight and densities. Total tonnage is the value received at the landfill.

Site survey activities were conducted by 48° North, LLC (48° North), who provided horizontal and vertical control of the pre- and post-excavation limits of each waste rock pile.

Washington Green Hydroseeding, Inc. (Washington Green), under subcontract to DWE, applied hydroseed and BFM in areas disturbed at the Site following excavation.

Onsite Environmental, Inc. (OnSite) in Redmond, Washington, conducted sample analyses in accordance with the SAP (GeoEngineers 2019a). Confirmation sample analytical methods included total arsenic, barium, iron, lead, manganese, mercury, selenium and silver via U.S. Environmental Protection Agency (EPA) Series 6010/6020B/7471A.

### 5.3. Temporary Erosion and Sediment Control (TESC) and Dust Control

The proximity of the Site, to the frequently utilized haul/access roads and hiking trails, coupled with arid site conditions, required extensive dust control to protect both DWE personnel, other site workers and the public. DWE used a water truck to dampen haul roads, excavations and stockpiles to minimize dust generation from construction activities. In addition to dust control, DWE established TESC in general accordance with Plan drawings to minimize contaminant migration or tracking off site. TESC measures included constructing a stabilized construction entrance with quarry spalls and installing silt fencing around the downslope sides of waste rock piles. DWE elected to improve the existing road/trail via a bulldozer, to create a useable 'haul road' between SR-01 and -03. DWE conducted periodic blading of mud to provide adequate traction for highway dump trucks and widened select areas of the road for other construction equipment use and travel.

A sediment trap feature was also constructed by DWE, as indicated in the Plans and Specifications, towards the Phase 1 IRA construction entrance. Rain events and Site stormwater runoff appeared to be captured in this stormwater feature and controlled discharges from leaving the Site.

Some of the TESC and dust control measures are depicted in Appendix A, Photographs 1 and 2.

### 5.4. Clearing and Grubbing Activities

With review and approval of the City, select existing trees and vegetation were removed (within waste rock pile limits) by DWE to facilitate excavation work. Trees and vegetation were removed from waste rock pile areas SR-01, -02 and -08. DWE provided a skid steer and mulching attachment on site. Mulch produced by DWE was evenly spread out at each reclaimed area.

### 5.5. Removal of Waste Rock

Four waste rock pile locations, SR-01 through SR-03 and SR-08, were identified by Ecology for removal. Based on visual observations, waste tickets and land survey data, the volume of waste rock material removed from areas SR-01, SR-02 and SR-08 was a total of approximately 60 percent greater than the predicted volumes estimated in the IRA Design Report (GeoEngineers 2019c).

Screening XRF samples were collected continuously by GeoEngineers, as DWE excavated each waste rock pile, to verify whether cleanup criteria had been achieved or additional material required removal within the excavation limits. Once the RAOs discussed in Section 4.0 had been met, final confirmation XRF and soil samples were collected from the excavated areas in approximate 15-foot grid patterns at SR-01 through SR-03, and an approximate 10-foot grid pattern at SR-08. Confirmation soil analytical samples

were collected from excavation limits and submitted to OnSite for chemical analysis. Confirmation XRF sample and soil analytical sample results are discussed further in Section 6.0 IRA Results. Excavation activities were performed in general accordance with the IRA Design Report (GeoEngineers 2019c), except as noted below.

Miscellaneous metal debris and refuse was observed at each waste pile location, which were removed and disposed by DWE off site. No cultural resource, historical or human remains were observed during Phase 1 IRA construction activities.

#### 5.5.1. SR-01 Excavation

DWE conducted remedial excavation activities at SR-01 from October 22 to October 30, 2019. Excavation work also uncovered the existing mining adit entrance at this location. Waste rock was excavated and loaded into dump trucks for transportation and disposal at WM's Greater Wenatchee Subtitle D landfill. The approximate pre- and post-construction limits of the SR-01 excavation are shown in Excavation Limits – SR-01, Figure 3.

Material removed from SR-01 generally consisted of light to dark brown, fine to coarse gravel with sand, silt and occasional cobbles. Boulders with diameters ranging from 3 to 5 feet were observed in or below waste rock. Waste rock thickness ranged from 0.5 to 6 feet, and was underlain by native soil and rock. Three distinct native soil types were observed during SR-01 excavation activities: (1) brown sandy silt to fine silty sand was present to the south and at the base of the slope in the excavation; (2) dark brown silt was present in the sidewalls surrounding the adit entrance; and (3) light grey sandy silt to fine silty sand was present to the north in the excavation.

Excavation activities at SR-01 were performed in general accordance with the IRA Design Report (GeoEngineers 2019c), with the following exceptions:

- The excavation extended outside the initial excavation limit to the northwest to remove additional waste rock present around and within (to the extent practicable) the SR-01 adit entrance.
- SR-01 confirmatory data had a different distribution than the SR-01 background data. Confirmatory data that deviated from the SR-01 background data were collected from native soil types (2) and (3) described above. Soil type (2), dark brown silt, was determined to be native soil based on the observation that this soil type matched soil present above waste rock on both sides of the adit entrance. Soil type (3), light grey sandy silt to fine silty sand, was determined to be native soil based on the observations that this soil type matched soil present north and east of the SR-01 adit that was identified during the April 2019 supplemental data gap investigation (GeoEngineers 2019b), and two well-established tree stumps with root systems embedded in this soil type were uncovered during excavation activities. Additionally, samples collected in soil type (3) were collected near native rock outcrops identified in or near the excavation, and high arsenic concentrations likely represent natural mineralization of native soil.

Based on pre- and post-construction surveys, approximately 1,819 cy of waste rock was removed from SR-01 and disposed of at WM's Greater Wenatchee Subtitle D landfill. However, this was approximately 15 percent more than the volume (1,575 cy) outlined in the IRA Design Report (GeoEngineers 2019c). The additional waste rock was excavated from: (1) the area surrounding the adit entrance; (2) greater

thickness of waste rock than anticipated on the slope within the central and north portions of SR-01; and (3) over excavating up to 1 foot into native soil to confirm all waste rock was removed.

Confirmation XRF sample and soil analytical sample locations for the SR-01 excavation are shown in Confirmation Sample Locations – SR-01, Figure 4. SR-01 confirmation XRF sample and soil analytical sample results are summarized in Final Confirmation XRF Samples – Arsenic Summary Results, Table 1, and Final Confirmation Soil Samples – Analytical Data Summary Results, Table 2. SR-01 photographs are presented in Appendix A, Photographs 3 through 12.

#### 5.5.2. SR-02 Excavation

DWE conducted remedial activities at SR-02 from October 8 to October 21, 2019. The associated SR-02 mining adit was observed to be outside the excavation limits and the entrance already closed with a controlled density fill (CDF) concrete material. Waste rock was excavated and loaded into dump trucks for transportation and disposal at WM's Greater Wenatchee Subtitle D landfill. The approximate limits of the SR-02 excavation are shown in Excavation Limits – SR-02, Figure 5.

Material removed from SR-02 generally consisted of light to dark brown, fine to coarse gravel with sand, silt and occasional cobbles. Metal debris was observed in the waste rock pile. Waste rock thickness ranged from 0.5 to 10 feet and was underlain by native soil and rock. Native soil generally consisted of light brown sandy silt. Excavation activities at SR-02 were performed in general accordance with the IRA Design Report (GeoEngineers 2019c), with the following exceptions:

- The excavation extended outside the initial estimated limit to the northwest to remove additional waste rock present below topsoil material. The topsoil was stockpiled near the excavation and waste rock was removed until native soil was encountered. Stockpiled topsoil was used to establish a 2-foot horizontal to 1-foot vertical (2H:1V) grade in this area during final grading activities at SR-02.
- Two vertical, concrete-filled 6.5-inch-diameter steel casings were uncovered during excavation activities. The casings were cut 1 foot below final grade and discovered to be hollow below a concrete 'plug'. Holt Services, Inc (Holt Services) used a down-well camera to view the pipe casings to depth. No well screens were observed. A final determination as to the prior use and purpose could not be found based on Holt's video survey of each vertical hole and a review of Ecology's internet based well and boring log database; however, they appeared to be former exploratory boreholes possibly connected with the former mining operations.
    - The northern steel casing extended to 4 feet below ground surface (bgs), with an open hole from 4 to 40 feet bgs.
    - The southern casing extended to 9 feet bgs, where a grout or cement seal was observed closing off the casing.
    - Holt Services removed both metal casings and decommissioned each hole in accordance with WAC 173-160-381. Casing investigations and decommissioning activities were completed by November 13 and 21, 2019, respectively.

Based on pre- and post-construction surveys, approximately 3,627 cy of waste rock was removed from SR-02 and disposed of at WM's East Wenatchee Subtitle D landfill. However, this was approximately 100 percent more than the volume (1,750 cy) outlined in the IRA Design Report (GeoEngineers 2019c). The additional waste rock was excavated from: (1) an extension of the excavation area to the northwest,

towards the SR-02 adit; (2) greater thickness of waste rock than anticipated within the SR-02 excavation area; and (3) over excavating up to 1 foot into native soil to confirm all waste rock was removed.

Confirmation XRF sample and soil analytical sample locations for the SR-02 excavation are shown in Confirmation Sample Locations – SR-02, Figure 6. SR-02 confirmation XRF sample and soil analytical sample results are summarized in Tables 1 and 2. SR-02 photographs are presented in Appendix A, Photographs 13 through 19.

#### 5.5.3. SR-03 Excavation

DWE conducted remedial activities at SR-03 from September 24 to October 7, 2019. A mining adit associated with SR-03 was not located during excavation work. Waste rock was excavated and loaded into dump trucks for transportation and disposal at WM's Greater Wenatchee Subtitle D landfill. The approximate limits of the SR-03 excavation are shown in Excavation Limits – SR-03, Figure 7.

Material removed from SR-03 generally consisted of light to dark brown, fine to coarse gravel with sand, silt and occasional cobbles. Waste rock thickness ranged from 0.5 to 12 feet and was underlain by native soil and rock. Native soil generally consisted of light to medium brown silt and clay or silt with sand. Excavation activities at SR-03 were performed in general accordance with the IRA Design Report (GeoEngineers 2019c), with the following exception:

- A 'deep pocket' of waste rock was present along the east-central portion of the SR-01 excavation. This area was identified by Ecology as an area that likely required additional excavation work, as presented in Ecology's Technical Memorandum (Ecology 2019). Material was removed from this area to a depth of approximately 12 feet, until it was determined by the City, Ecology and GeoEngineers that waste rock had been removed to observed native soil elevations. Native soil in this area had elevated arsenic concentrations, primarily associated with the bedrock outcrops within and around SR-03. The deep pocket was graded to 2H:1V and "capped" with surrounding clean soil between 2 and 4 feet east of the excavation. The borrow soil used to cap the 'deep pocket' area was tested with the XRF instrument to be less than the Site-specific cleanup criteria of 95 mg/kg.

Based on pre- and post-construction surveys, approximately 1,963 cy of waste rock was removed from SR-03 and disposed of at WM's East Wenatchee Subtitle D landfill. This was approximately 7 percent less than the volume (2,100 cy) outlined in the IRA Design Report (GeoEngineers 2019c).

Confirmation XRF sample and soil analytical sample locations for the SR-03 excavation are shown in Confirmation Sample Locations – SR-03, Figure 8. SR-03 confirmation XRF sample and soil analytical sample results are summarized in Tables 1 and 2. SR-03 photographs are presented in Appendix A, Photographs 20 through 26.

#### 5.5.4. SR-08 Excavation

DWE conducted remedial activities at SR-08 on October 7, 2019. A mining adit associated with SR-08 was uncovered during excavation work. Waste rock was excavated and loaded into dump trucks for transportation and disposal at WM's Greater Wenatchee Subtitle D landfill. The approximate limits of the SR-08 excavation are shown in Excavation Limits – SR-08, Figure 9.

Material removed from SR-08 generally consisted of light to dark brown, fine to coarse gravel with sand, silt and occasional cobbles. Waste rock thickness ranged from 0.5 to 3 feet and was underlain by native soil. Native soil generally consisted of light to medium brown sandy silt and fine silty sand. Excavation activities at SR-08 were performed in general accordance with the IRA Design Report (GeoEngineers 2019c).

Based on pre- and post-construction surveys, approximately 480 cy of waste rock was removed from SR-08 and disposed of at WM's East Wenatchee Subtitle D landfill. However, this was approximately 20 percent more than the volume (400 cy) outlined in the IRA Design Report (GeoEngineers 2019c). The additional waste rock was excavated from: (1) the entrance to the SR-08 adit; and (2) over excavating up to 1 foot into native soil to confirm all waste rock was removed.

Confirmation XRF sample and soil analytical sample locations for the SR-08 excavation are shown in Confirmation Sample Locations – SR-08, Figure 10. SR-08 confirmation XRF sample and soil analytical sample results are summarized in Tables 1 and 2. SR-08 photographs are presented in Appendix A, Photographs 27 through 31.

### 5.6. Adit Closures

The Phase 1 area mining adits at the waste rock piles were inspected during the data gaps sampling event in April 2019 (GeoEngineers 2019b) to assess suitability for bat gates/culverts or permanent adit 'plugs.' The adit at SR-07 appeared to be a shallow exploration (less than 6 feet into the formations). As such, it was expected to pose a lower risk and did not likely support bat hibernacula. DWE installed a permanent rebar and concrete 'plug' at the SR-07 adit on November 7, 2019.

The adit at SR-01 was more extensive and required excavation to investigate the opening during the Phase 1 remedial action. DWE excavated waste rock material around the entrance to the adit and determined that the adit was approximately 15 feet wide by 40 feet deep into the formation. Trash and debris were observed approximately 15 to 20 feet inside the adit but was not removed prior to sealing the adit due to safety concerns. The adit was found to be not suitable for a bat structure. The large size of the adit opening and deep extension into the rock formation made installing a concrete and rebar 'plug' impractical. After discussions between the City, Ecology and GeoEngineers, it was determined that DWE would backfill the adit using boulders excavated during removal of waste rock material at SR-01 and DWE imported and locally sourced soil ('Blewett Premium' barrow soil material). Borrow material was visually accepted by representatives from the City. DWE completed backfilling the adit on November 7, 2019. The borrow material was placed in approximately 1-foot lifts and compacted with the excavator bucket, to a height of approximately 3 feet above the adit entrance. The slope was graded to 2H:1V and contoured to match existing topography.

The adit at SR-02 was previously backfilled with CDF concrete. The CDF material was determined by the City, Ecology and GeoEngineers to be an effective 'plug' for the SR-02 adit and was left in place.

DWE excavated and discovered the adit at SR-08 during the Phase 1 remedial action. The adit was determined to be a shallow exploration and was partially filled with waste rock. As such, the adit did not likely support bat hibernacula. Waste rock was removed from the adit (to the extent practicable) and confirmation XRF and soil analytical samples were collected from the adit entrance. After receiving confirmation from Ecology, the adit was backfilled with surrounding Site soil from upslope of SR-08. Backfill

material was compacted with the excavator bucket, graded to 2H:1V slope and contoured to match existing native topography. The Site borrow soil used to close the adit was tested with the XRF instrument to be less than the Site-specific cleanup criteria of 95 mg/kg.

Adit closure photographs are presented in Appendix A, Photographs 32 through 36.

### 5.7. Final Grading, Restoration and As-Built Surveying

The excavation areas were graded to match the surrounding grade and to maintain positive drainage. Reclaimed areas were graded to a maximum 2H:1V slope. At the request of Ecology, permanent erosion control check dams were constructed on the northeastern portion of SR-03 to reduce erosion along the final limits. Stormwater drainage check dams were also excavated in select areas of the haul road between SR-01 and SR-03, in general accordance with Site Plans. Final site-grading activities were completed by November 7, 2019.

Disturbed waste rock pile locations and select areas disturbed during remedial construction activities were restored via hydroseeding and BFM by Washington Green. GeoEngineers reviewed Washington Green's project submittal including materials and seed mixtures to be used, and determined them to be outside project specifications and communicated this to the City prior to mobilization. GeoEngineers provided review comments of the original Washington Green submittals and revised submittals were provided to the City. Representatives from the City determined that the revised project submittals were adequate and approved the submittal. Silt fences were removed just before restoration activities were completed at each waste rock location. Washington Green's project submittals are included in Appendix E. Restoration activities were completed at SR-01 and SR-02 on November 7, 2019 and at SR-03 and SR-08 on October 30, 2019. Final restoration photographs are presented in Appendix A, Photographs 37 through 42.

48° North conducted the final as-built surveys when waste rock pile excavations were complete. The final survey at SR-01 was completed on October 30, 2019. The final survey for SR-02 was completed on October 25, 2019. The final surveys for SR-03 and SR-08 were completed on October 8, 2019.

DWE removed all temporary erosion and sediment control elements from the Site, except the sediment trap feature towards the Phase 1 IRA construction entrance, per Specification requirements. DWE officially demobilized their equipment, trucks and materials from the Site on November 7, 2019.

## 6.0 INTERIM REMEDIAL ACTION RESULTS

### 6.1. General

Confirmation samples from the remedial excavations were analyzed in accordance with the SAP (GeoEngineers 2019a). The following table (Table II) summarizes the chemical analyses and the number of samples collected from each remedial excavation.

**TABLE II. CONFIRMATION SOIL SAMPLES**

| Excavation Area | Number of XRF Samples[1] | Number of Soil Analytical Samples[1] | Chemical Analysis of Confirmation Soil Samples |
|---|---|---|---|
| SR-01 | 29 | 6 | Total arsenic, barium, iron, lead, manganese, mercury, selenium and silver |
| SR-02 | 71 | 12 | |
| SR-03 | 52 | 9 | |
| SR-08 | 24 | 4 | |
| QA/QC | 17 | 2 | |

Note:

[1] Total number of final confirmation samples collected.

Additionally, six 'close-in' background soil samples were collected at the request of Ecology and analyzed in accordance with the SAP (GeoEngineers 2019a). Confirmation XRF sample results and soil sample analytical results are presented in Tables 1 and 2, respectively, and summarized in Section 6.2. The 'close-in' sample results are presented in Table 2 and summarized in Section 6.4. Table 2 additionally presents the terrestrial ecological evaluation (TEE) values for plants, soil biota and wildlife for the analytes, and indicates exceedances of one or more TEEs for all analytes except arsenic and lead.

## 6.2. Waste Rock Pile Results[1]

### 6.2.1. SR-01

No visible waste rock remains at SR-01 and the final topography is consistent with estimated native topography, as shown in Appendix A, Photographs 3 through 12. XRF confirmatory data for SR-01 are summarized in Table III below.

**TABLE III. SR-01 XRF ARSENIC CONFIRMATORY RESULTS**

| Waste Rock Area | Area Background Soil | Native Bedrock | Confirmatory Soil |
|---|---|---|---|
| As Range (mg/kg) | 16-75 | 180-270 | 20-180 |
| As Median (mg/kg) | 42 | 250 | 63 |
| Count (n) | 15 | 3 | 26 |
| Percent Less Than 95 mg/kg | 100% | 0% | 81% |

Arsenic concentrations in SR-01 confirmation soil analytical samples ranged between 19 mg/kg and 140 mg/kg. Arsenic was detected at concentrations greater than the Site-specific cleanup level of 95 mg/kg in two soil analytical samples, SR01-CS-02-02 and SR01-CS-06-02. Sample SR01-CS-02-02 had an arsenic concentration of 140 mg/kg, but was not over excavated because the sample was collected from the apparent native elevation with light grey sandy silt or fine silty sand native soil material described in Section 5.3.1. Sample SR01-CS-06-02 had an estimated arsenic concentration of 100 mg/kg; however, this result is anomalous, as the final XRF sample results at this location indicated an arsenic concentration

[1]Confirmation soil samples results are discussed relative to total arsenic, when the word "arsenic" is referenced."

of 59 mg/kg and an XRF reading of the homogenized sample (before placement into the sample container) indicated an arsenic concentration of about 60 mg/kg. For these reasons, this sample location was also not over excavated.

All other tested metal analytes were either not detected above laboratory method reporting limits (MRL) or detected at concentrations less than MTCA Method A and B cleanup levels in the soil analytical samples from SR-01.

TEE exceedances in SR-01 confirmatory soil samples were also compared with close-in background sample results from the same waste rock area, as presented in Table 2. Results of the specific TEE exceedances indicate very similar concentration range(s) and concentration order of magnitude, as observed between the close-in and confirmatory samples. These results further support that final excavation limits were remediated to native background conditions.

Based on field observations and these sample results, Ecology determined that SR-01 construction activities met the requirements described in the final IRA Design Report (GeoEngineers 2019c) and concluded that the cleanup at SR-01 was complete on November 1, 2019.

#### 6.2.2. SR-02

No visible waste rock remains at SR-02 and the final topography is consistent with estimated native topography, as shown in Appendix A, Photographs 13 through 19. XRF confirmatory data for SR-02 are summarized in Table IV below.

**TABLE IV. SR-02 XRF ARSENIC CONFIRMATORY RESULTS**

| Waste Rock Area | Area Background Soil | Native Bedrock | Confirmatory Soil |
|---|---|---|---|
| As Range (mg/kg) | 18-72 | 150 | 13-92 |
| As Median (mg/kg) | 29 | 150 | 43 |
| Count (n) | 15 | 1 | 70 |
| Percent Less Than 95 mg/kg | 100% | 0% | 100% |

Arsenic concentrations in SR-02 confirmation soil analytical samples ranged between 12 mg/kg and 86 mg/kg.

All other tested metal analytes were either not detected above laboratory MRLs or detected at concentrations less than MTCA Method A and B cleanup levels in the soil analytical samples from SR-02.

TEE exceedances in SR-02 confirmatory soil samples were also compared with close-in background sample results from the same waste rock area, as presented in Table 2. Results of the specific TEE exceedances indicate very similar concentration range(s) and concentration order of magnitude, as observed between the close-in and confirmatory samples. These results further support that final excavation limits were remediated to native background conditions.

Based on field observations and these sample results, Ecology determined that SR-02 construction activities met the requirements described in the final IRA Design Report (GeoEngineers 2019c) and concluded that the cleanup at SR-02 was complete on October 29, 2019.

### 6.2.3. SR-03

No visible waste rock remains at SR-03 and the final topography is consistent with estimated native topography, as shown in Appendix A, Photographs 20 through 26. XRF confirmatory data for SR-03 are summarized in Table V below.

**TABLE V. SR-03 XRF ARSENIC CONFIRMATORY RESULTS**

| Waste Rock Area | Area Background Soil | Native Bedrock | Confirmatory Soil |
|---|---|---|---|
| As Range (mg/kg) | 6-101 | 46-290 | 6.4-190 |
| As Median (mg/kg) | 12 | 130 | 64 |
| Count (n) | 15 | 19 | 35 |
| Percent Less Than 95 mg/kg | 93% | 37% | 89% |

Arsenic concentrations in SR-03 confirmation soil analytical samples ranged between 36 mg/kg and 91 mg/kg. Additionally, mercury was detected at 2.4 mg/kg in SR03-CS-04-02, which is greater than MTCA's Method A criteria for unrestricted land use. At the request of Ecology, an additional soil sample, SR03-CS-04-02-CI, was collected from the SR03-CS-04-02 sample location and submitted for analysis to confirm the mercury detection. Mercury was detected at 1.7 mg/kg in this supplemental sample.

All other tested metals analytes were either not detected above laboratory MRLs or detected at concentrations less than the MTCA Method A cleanup levels in all other soil analytical samples from SR-03.

TEE exceedances in SR-03 confirmatory soil samples were also compared with close-in background sample results from the same waste rock area, as presented in Table 2. Results of the specific TEE exceedances indicate very similar concentration range(s) and concentration order of magnitude, as observed between the close-in and confirmatory samples. These results further support that final excavation limits were remediated to native background conditions.

Based on field observations and these sample results, Ecology determined that SR-03 construction activities met the requirements described in the final IRA Design Report (GeoEngineers 2019c) and concluded that the cleanup at SR-03 was complete on October 28, 2019.

### 6.2.4. SR-08

No visible waste rock remains at SR-08 and the final topography is consistent with estimated native topography, as shown in Appendix A, Photographs 27 through 31. XRF confirmatory data for SR-08 are summarized in Table VI below.

**TABLE VI. SR-08 XRF ARSENIC CONFIRMATORY RESULTS**

| Waste Rock Area | Area Background Soil | Native Bedrock | Confirmatory Soil |
|---|---|---|---|
| As Range (mg/kg) | 7-433 | -- | <4.5-94 |
| As Median (mg/kg) | 20.5 | -- | 38 |
| Count (n) | 16 | -- | 24 |
| Percent Less Than 95 mg/kg | 67% | -- | 100% |

Arsenic concentrations in SR-08 confirmation soil analytical samples ranged between 8.2 mg/kg and 69 mg/kg.

All other tested metal analytes were either not detected above laboratory MRLs or were detected at concentrations less than MTCA Method A cleanup levels in the soil analytical samples collected from SR-08.

TEE exceedances in SR-08 confirmatory soil samples were also compared with close-in background sample results from the same waste rock area, as presented in Table 2. With the exception of selenium, results of the specific TEE exceedances indicate very similar concentration range(s) and concentration order of magnitude, as observed between the close-in and confirmatory samples. These results further support that final excavation limits were remediated to native background conditions.

Based on field observations and these sample results, Ecology determined that SR-08 construction activities met the requirements described in the final IRA Design Report (GeoEngineers 2019c) and concluded that the cleanup at SR-03 was complete on October 28, 2019.

## 6.3. Statistical Distribution

The distribution of data was reviewed to compare background soil concentrations and confirmation soil samples for each of the waste rock piles reclaimed during Phase 1 of the IRA. These data were compiled in box and whisker plots and quantile-quantile (Q-Q) distribution plots (Appendix H). Goodness of fit (GOF) tests were also utilized with the default Shapiro-Wilk Test provided in ProUCL Version 5.1 to complement the distribution analysis.

### 6.3.1. SR01 Data Distribution

The GOF tests for SR01 samples indicate a non-parametric background distribution of data, and a lognormal distribution of confirmatory data. The box and whisker plot developed for SR01 suggested confirmatory soil samples analyzed by XRF were generally distributed higher than background soils analyzed during the IRA field sampling (GeoEngineers 2019b). In addition, two outliers were depicted beyond the maximum whisker value of the confirmatory data set, where arsenic was measured at 160 mg/kg and 180 mg/kg, respectively. The box plots indicate the two sample data sets are dissimilar. However, the interquartile range (distance between the 25$^{th}$ and 75$^{th}$ percentile) were below the 95 mg/kg cleanup goal for both data sets.

The Q-Q plots for background and confirmatory soils samples at SR01 also suggest a difference between the distribution of the data sets. As illustrated, the distribution of Site confirmatory measurements appears to exceed the distribution of background concentrations. There are five measurements in excess of the

95 mg/kg cleanup goal. Nonetheless, as depicted on the plot, the majority of confirmatory measurements (n=21) fall under the 95 mg/kg cleanup level.

#### 6.3.2. SR02 Data Distribution

The GOF tests for SR02 samples indicate lognormal background and confirmatory data distributions. The box and whisker plot generated for SR02 also suggested confirmatory soil samples analyzed by XRF were generally distributed higher than background soils analyzed during the IRA field sampling. Based on this, the box plots indicate the two sample data sets are not similar. However, no outliers were depicted beyond the maximum whisker value of the confirmatory data set. In addition, the maximum whisker value (92 mg/kg) and interquartile range were below the 95 mg/kg cleanup goal.

The Q-Q plots for background and confirmatory soils samples at SR02 also suggest a difference between the distribution of the data sets. As shown, the distribution of Site confirmatory measurements appears to exceed the distribution of background concentrations. Regardless, none of the measurements are above the 95 mg/kg cleanup goal.

#### 6.3.3. SR03 Data Distribution

The GOF tests for SR03 samples indicate lognormal background and confirmatory data distributions. The box and whisker plot generated for SR03 illustrates confirmatory soil samples analyzed by XRF were generally distributed higher than background soils analyzed during the IRA field sampling. Based on this, the box plots indicate the two sample data sets are not similar. However, an outlier was identified for the background data set (arsenic = 101 mg/kg) and the maximum whisker value of the confirmatory data set was 106 mg/kg. Nonetheless, the interquartile range for both data sets were below the 95 mg/kg cleanup goal.

The Q-Q plots for background and confirmatory soils samples at SR03 also suggest a difference between the distribution of the data sets. The distribution of site confirmatory measurements appears to exceed the distribution of background concentrations. As shown, the background outlier value of 101 mg/kg and highest confirmatory measurement of 106 mg/kg were the only concentrations above the 95 mg/kg cleanup goal.

#### 6.3.4. SR08 Data Distribution

The GOF tests for SR08 samples indicate lognormal background and confirmatory data distributions. The box and whisker plot generated for SR08 suggests confirmatory soil samples analyzed by XRF were generally distributed lower than background soils analyzed during the IRA field sampling. As such, the box plots indicate the two sample data sets appear to be dissimilar. Several outliers are illustrated within the background soils plot, with the highest value at 489 mg/kg. Moreover, the mean value of 124 mg/kg and interquartile range for background soils exceeds the cleanup goal of 95 mg/kg. As a comparison, the confirmatory data set generated no outliers, and all measurements were blow the cleanup goal.

The Q-Q plots for background and confirmatory soils samples at SR08 also suggest a difference between the distribution of the data sets. The distribution of Site confirmatory measurements appears to be well below the distribution of background concentrations. As shown, there are seven background values ranging from 111 mg/kg to 489 mg/kg above the 95 mg/kg cleanup goal.

### 6.3.5. Discussion

Box and whisker plots and Q-Q plots generated to compare data distribution identified differences between data sets for background and confirmation soil samples at the Site. In general, confirmatory data sets for SR01, SR02 and SR03 were distributed higher than background data sets. Conversely, the background data set at SR08 was distributed well above the confirmatory sample set. When all data were combined for the piles, the box and whisker plot depict a more similar distribution, with the interquartile ranges of both data sets within the 95 mg/kg cleanup goal. Both data sets also show the upper ends of the whiskers exceeding the cleanup goal, as well as four outliers apiece. However, the outliers for the background data set appear to be skewed above the confirmatory data set, as illustrated in the Q-Q plot for all data. As such, these distributions do not appear to be similar.

Summary statistics for the data distribution are provided in Table VII below.

**TABLE VII. DATA DISTRIBUTION STATISTICS FOR BACKGROUND AND CONFIRMATION SAMPLES**

| Source | Sub Area | GOF Test | Mean | 25th Quartile | 75th Quartile | Upper Whisker | Outliers | Similar Distribution? |
|---|---|---|---|---|---|---|---|---|
| | | | Milligrams per kilogram (mg/kg) | | | | | |
| **SR-01** | Background | Nonparametric | 47.53 | 25 | 71 | 75 | No | No |
| | Confirmation | Lognormal | 76.88 | 52 | 89 | 144 | Yes | |
| **SR-02** | Background | Lognormal | 33.73 | 26 | 39 | 47 | No | No |
| | Confirmation | Lognormal | 46.58 | 30 | 59 | 92 | No | |
| **SR-03** | Background | Lognormal | 19.47 | 8 | 21 | 29 | Yes | No |
| | Confirmation | Lognormal | 61.03 | 45 | 77 | 106 | No | |
| **SR-08** | Background | Lognormal | 124.4 | 14 | 144 | 306 | Yes | No |
| | Confirmation | Lognormal | 34.07 | 13 | 59 | 94 | No | |
| **All Piles** | Background | Lognormal | 56.28 | 16 | 70 | 144 | Yes | No |
| | Confirmation | Lognormal | 54.39 | 32 | 69 | 121 | Yes | |

## 6.4. Close-In Samples

As a result of the one confirmation soil sample with a mercury detection greater than MTCA Method A criteria at SR-03, Ecology requested six additional 'close-in' background samples on October 14, 2019, to further characterize background metal concentrations at the Site. The additional sampling was justified by Ecology to better understand whether elevated naturally occurring mercury was present across other areas of the Site, especially at other waste rock pile locations. These 'close-in' samples were collected from waste rock piles SR-01 through SR-05 and SR-08 on October 14, 2019 and October 15, 2019.

Sample locations were recommended by Ecology and further represent background sample locations from the supplemental data gap analysis (GeoEngineers 2019b). The 'close-in' sample analytical results were generally consistent with analytical sample results from the April 2019 supplemental data gap analysis, with the highest concentration of mercury detected at 0.16 mg/kg.

## 6.5. XRF Data Quality

### 6.5.1. XRF Duplicates Analysis

Field QA samples required by the SAP include field duplicates (GeoEngineers 2019a). Nineteen XRF field duplicates were taken with soil samples to confirm adequate homogenization of samples and precision of analysis. Results of the field duplicates are included in XRF Samples Duplicate Analysis, Table 3, and indicate that in general, field precision was adequate. The relative percent difference (RPD) for most samples was within 20 percent, with the exception of five duplicate XRF samples, where RPDs ranged from 21 percent to 103 percent. These anomalous results represent approximately 26 percent of the total duplicate samples; however, the overall average RPD was 16 percent for the 19 duplicate samples.

### 6.5.2. XRF and Laboratory Correlation

Comparability of the XRF data with the laboratory results were assessed using the correlation plot provided in Appendix H. The linear regression calculation, which excludes six outliers highlighted in the correlation plot, identified a correlation coefficient ($R^2$) of 0.9192, which indicates a strong linear correlation between XRF and laboratory data.

Laboratory results for samples SR01-CS-06-02 and SR08-CS-05-02 are anomalous; the final XRF sample results at the SR01-CS-06-02 location indicated an arsenic concentration of 59 mg/kg and an XRF reading of the homogenized sample (before placement into the sample container) indicated an arsenic concentration of about 60 mg/kg, and the XRF reading and duplicate XRF readings at the SR08-CS-05-02 location indicated an arsenic concentration between 74 and 85 mg/kg.

Four additional samples, SR01-CS-03-02, SR01-CS-01-02, SR02-CS-07-02 and SR02-CS-11-02, had 44 to 146 percent differences between the XRF reading and laboratory results. These differences could be the result of inadequate homogenization of soil before sampling or a small piece of waste rock that skewed the XRF readings or analytical laboratory results.

### 6.5.3. XRF Data Usability

The XRF arsenic data were found to be fully usable for the purposes herein, namely confirmation of arsenic concentrations in remaining soils after completion of the remedial action.

## 6.6. Laboratory Data Quality

The laboratory analytical data were found to be fully usable for the purposes herein, namely verification of XRF arsenic analysis and assessment of the other site constituents of concern in remaining soils, after completion of the remedial action.

# 7.0 CONCLUSIONS

In accordance with the plans and specifications outlined in the IRA Design Report (GeoEngineers 2019c), 7,889 cy of waste rock were excavated and disposed of at WM's Greater Wenatchee Subtitle D landfill facility. This included approximately 1,819 cy of material from SR-01, 3,627 cy of material from SR-02, 1,963 cy of material from SR-03 and 480 cy of material from SR-08.

Former mine adits associated with waste rock piles SR-01, SR-02 and SR-08, and the shallow exploration for SR-07, were sealed using concrete and rebar 'plugs', backfilling with native soil or imported clean material and/or determined to be adequately sealed by other means. Disturbed areas of the Site were restored with hydroseeding materials and final graded to reduce future erosion. The excavation areas are graded for positive stormwater drainage. The removal of waste rock, sealing of mine adits and restoration of disturbed areas has significantly reduced potential exposures through the direct-contact, inhalation and ingestion pathways to human and ecological receptors.

Based on field observations, XRF data and laboratory analysis, GeoEngineers concluded the following:

- The IRA met the RAOs that were approved by Ecology.
- All material identified as waste rock was removed from the four areas, and remaining material was either native soil or native bedrock. All native soil in these areas had arsenic concentrations less than 95 mg/kg, except for 19 percent of locations in SR01, 0 percent of locations in SR02, 11 percent of locations in SR03, and 0 percent of locations in SR08. The remaining arsenic is attributed to natural mineralization and not anthropogenically impacted materials.
- Native bedrock in areas SR-01, SR-02 and SR-03 commonly had arsenic concentrations in excess of 95 mg/kg. No significant bedrock was encountered during the SR-08 excavation work.
- With the exception of one anomalous detection of mercury at SR-03, all results for constituents other than arsenic were less than MTCA Method A or Method B cleanup levels.
- The constituents barium, lead, manganese, mercury, selenium and silver had some TEE exceedances in some confirmatory soil samples; however, close-in background soil samples had comparable concentrations of these constituents, indicating remedial excavation work generally reached native soil at each waste rock pile location.:

Statistical analysis of the data distributions for background and confirmation soil samples were performed by generating box and whisker plots and Q-Q plots for Phase 1 remedial activities. Graphical illustration of the plots indicates distribution variability between background and confirmatory soil samples; however, distributions appear to generally be within the cleanup goal of 95 mg/kg. Compilation of all Phase 1 data sets also show both interquartile ranges of background and confirmatory data sets within the cleanup goal. In our opinion and Ecology's opinion, the Phase 1 IRA cleanup action conducted at the Site was conducted in compliance with the final Design Report, Plans and Specifications, fulfills the requirements and objectives set forth by Ecology and is protective of human health and the environment.

## 8.0 LIMITATIONS

This report has been prepared for the exclusive use of the City of Wenatchee, their authorized agents and regulatory agencies in their evaluation of the Site. No other party may rely on this product of our services unless we agree in advance and in writing to such reliance.

GeoEngineers has performed the Phase 1 IRA construction oversight services in accordance with the scope and limitations of our Agreement (Agreement No. 1232, Amendment No. 1) with the City of Wenatchee dated August 29, 2019.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

## 9.0 REFERENCES


Ecology, 2018a. Technical Memorandum, Gold Knob Prospect (aka Saddle Rock Park), Establishing Site Cleanup Levels and Areas. June 14, 2018.

Ecology, 2018b. Agreed Order, Gold Knob Prospect Site (FSID 22496), 1200 Circle Street, Wenatchee, Washington. October 25, 2018.

GeoEngineers, 2019a. Sampling and Analysis Plan, Interim Remedial Action Design and Remedial Action, Saddle Rock Natural Area, Wenatchee, Washington. File No. 4296-008-00. February 20, 2019.

GeoEngineers, 2019b. Technical Memorandum for Saddle Rock Interim Remedial Action Field Sampling: April 2019. File No. 4296-008-00. June 26, 2019.

GeoEngineers, 2019c. Interim Removal Action Final Design Report, Saddle Rock Park, Wenatchee, Washington. File No. 4296-009-00. July 8, 2019.

Hart Crowser, 2013a. Remedial Investigation, Saddle Rock Park, Wenatchee, Washington. June 19, 2013.

Hart Crowser, 2013b. Feasibility Study, Saddle Rock Park, Wenatchee, Washington. June 28, 2013.

TABLES

GeoEngineers

# Table 1

## Final Confirmation XRF Samples - Arsenic Summary Results

### Saddle Rock Interim Remedial Action Project

### Wenatchee, Washington

| Waste Rock Pile Location | Sample Identification | Depth (inches) | Date | Time | Arsenic Concentration (mg/kg) | Final Sample Location Comments |
|---|---|---|---|---|---|---|
| SR-01 | XRF1 | 0-2 | 10/29/2019 | 8:15 | 180 | |
| | SR01-CS-01-02 (XRF2) | 0-2 | 10/29/2019 | 8:20 | 52 | |
| | XRF3 | 0-2 | 10/29/2019 | 12:12 | 76 | |
| | XRF4 | 0-2 | 10/29/2019 | 12:17 | 54 | |
| | XRF5 | 0-2 | 10/29/2019 | 12:22 | 62 | |
| | SR01-CS-02-02 (XRF6) | 0-2 | 10/29/2019 | 8:33 | 120 | |
| | XRF7 | 0-2 | 10/29/2019 | 12:26 | 140 | |
| | XRF8 | 0-2 | 10/29/2019 | 12:30 | 270 | Native Bedrock |
| | XRF9 | 0-2 | 10/29/2019 | 12:36 | 54 | |
| | XRF9 (DUP) | 0-2 | 10/29/2019 | 12:36 | 68 | |
| | SR01-CS-03-02 (XRF10) | 0-2 | 10/29/2019 | 8:55 | 86 | |
| | XRF11 | 0-2 | 10/29/2019 | 12:55 | 160 | |
| | XRF12 | 0-2 | 10/29/2019 | 12:59 | 80 | |
| | XRF13 | 0-2 | 10/29/2019 | 13:17 | 250 | Native Bedrock |
| | XRF14 | 0-2 | 10/29/2019 | 13:22 | 180 | Native Bedrock |
| | XRF15 | 0-2 | 10/29/2019 | 12:42 | 89 | |
| | XRF16 | 0-2 | 10/29/2019 | 12:51 | 59 | |
| | XRF17 | 0-2 | 10/29/2019 | 13:03 | 85 | |
| | XRF18 | 0-2 | 10/29/2019 | 13:14 | 82 | |
| | XRF19 | 0-2 | 10/29/2019 | 13:25 | 130 | |
| | XRF20 | 0-2 | 10/29/2019 | 13:31 | 55 | |
| | XRF20 (DUP) | 0-2 | 10/29/2019 | 13:31 | 68 | |
| | XRF21 | 0-2 | 10/29/2019 | 12:46 | 35 | |
| | SR01-CS-04-02 (XRF22) | 0-2 | 10/29/2019 | 9:15 | 23 | |
| | XRF23 | 0-2 | 10/29/2019 | 13:06 | 52 | |
| | XRF24 | 0-2 | 10/29/2019 | 13:10 | 38 | |
| | SR01-CS-05-02 (XRF25) | 0-2 | 10/29/2019 | 9:36 | 63 | |
| | XRF26 | 0-2 | 10/29/2019 | 13:35 | 89 | |
| | XRF27 | 0-2 | 10/29/2019 | 13:43 | 52 | |
| | XRF28 | 0-2 | 10/29/2019 | 13:39 | 20 | |
| | SR01-CS-06-02 (XRF29) | 0-2 | 10/29/2019 | 9:51 | 56 | |
| | XRF29 (DUP) | 0-2 | 10/29/2019 | 9:51 | 59 | |
| SR-02 | XRF1 | 0-2 | 10/24/2019 | 14:23 | 36 | |
| | XRF2 | 0-2 | 10/24/2019 | 14:28 | 39 | |
| | XRF3 | 0-2 | 10/24/2019 | 14:32 | 50 | |
| | XRF4 | 0-2 | 10/24/2019 | 14:36 | 27 | |
| | XRF5 | 0-2 | 10/24/2019 | 14:48 | 49 | |
| | XRF6 | 0-2 | 10/23/2019 | 10:35 | 19 | |
| | XRF7 | 0-2 | 10/23/2019 | 10:29 | 41 | |
| | XRF8 | 0-2 | 10/23/2019 | 10:25 | 82 | |
| | XRF9 | 0-2 | 10/23/2019 | 10:21 | 46 | |
| | XRF10 | 0-2 | 10/23/2019 | 10:16 | 68 | |
| | XRF10 (DUP) | 0-2 | 10/23/2019 | 10:16 | 60 | |
| | XRF11 | 0-2 | 10/23/2019 | 10:08 | 150 | Native Bedrock |

| Waste Rock Pile Location | Sample Identification | Depth (inches) | Date | Time | Arsenic Concentration (mg/kg) | Final Sample Location Comments |
|---|---|---|---|---|---|---|
| SR-02 | SR02-CS-01-02 (XRF12) | 0-2 | 10/23/2019 | 9:54 | 44 | |
| | XRF13 | 0-2 | 10/28/2019 | 11:08 | 46 | |
| | XRF14 | 0-2 | 10/28/2019 | 11:13 | 81 | |
| | XRF15 | 0-2 | 10/28/2019 | 11:20 | 75 | |
| | XRF16 | 0-2 | 10/28/2019 | 11:23 | 25 | |
| | XRF17 | 0-2 | 10/28/2019 | 11:27 | 37 | |
| | XRF18 | 0-2 | 10/23/2019 | 10:41 | 25 | |
| | SR02-CS-02-02 (XRF19) | 0-2 | 10/23/2019 | 10:54 | 27 | |
| | XRF20 | 0-2 | 10/23/2019 | 11:08 | 70 | |
| | XRF20 (DUP) | 0-2 | 10/23/2019 | 11:08 | 70 | |
| | XRF21 | 0-2 | 10/23/2019 | 11:25 | 46 | |
| | XRF22 | 0-2 | 10/23/2019 | 11:31 | 54 | |
| | XRF23 | 0-2 | 10/23/2019 | 11:38 | 88 | |
| | SR02-CS-10-02 (XRF24) | 0-2 | 10/24/2019 | 15:52 | 40 | |
| | XRF25 | 0-2 | 10/25/2019 | 9:06 | 34 | |
| | SR02-CS-07-02 (XRF26) | 0-2 | 10/24/2019 | 15:17 | 17 | |
| | XRF27 | 0-2 | 10/28/2019 | 10:58 | 92 | |
| | XRF28 | 0-2 | 10/28/2019 | 11:02 | 37 | |
| | XRF29 | 0-2 | 10/23/2019 | 12:09 | 44 | |
| | XRF30 | 0-2 | 10/23/2019 | 12:03 | 36 | |
| | XRF30 (DUP) | 0-2 | 10/23/2019 | 12:03 | 28 | |
| | XRF31 | 0-2 | 10/23/2019 | 11:57 | 64 | |
| | XRF32 | 0-2 | 10/23/2019 | 11:50 | 51 | |
| | XRF33 | 0-2 | 10/23/2019 | 11:46 | 61 | |
| | XRF34 | 0-2 | 10/28/2019 | 10:30 | 51 | |
| | XRF35 | 0-2 | 10/28/2019 | 10:37 | 86 | |
| | XRF36 | 0-2 | 10/28/2019 | 10:41 | 32 | |
| | XRF37 | 0-2 | 10/28/2019 | 10:47 | 54 | |
| | XRF38 | 0-2 | 10/28/2019 | 10:53 | 61 | |
| | XRF39 | 0-2 | 10/23/2019 | 12:20 | 59 | |
| | XRF40 | 0-2 | 10/23/2019 | 12:26 | 17 | |
| | XRF40 (DUP) | 0-2 | 10/23/2019 | 12:26 | 14 | |
| | SR02-CS-03-02 (XRF41) | 0-2 | 10/23/2019 | 13:36 | 36 | |
| | XRF42 | 0-2 | 10/23/2019 | 13:48 | 67 | |
| | SR02-CS-06-02 (XRF43) | 0-2 | 10/24/2019 | 15:06 | 71 | |
| | XRF44 | 0-2 | 10/25/2019 | 9:11 | 51 | |
| | XRF45 | 0-2 | 10/25/2019 | 9:15 | 24 | |
| | XRF46 | 0-2 | 10/25/2019 | 9:19 | 43 | |
| | SR02-CS-05-02 (XRF47) | 0-2 | 10/24/2019 | 14:52 | 32 | |
| | XRF48 | 0-2 | 10/23/2019 | 14:05 | 35 | |
| | XRF49 | 0-2 | 10/23/2019 | 14:00 | 36 | |
| | XRF50 | 0-2 | 10/23/2019 | 13:57 | 41 | |
| | XRF50 (DUP) | 0-2 | 10/23/2019 | 13:57 | 38 | |
| | XRF51 | 0-2 | 10/28/2019 | 10:10 | 58 | |
| | XRF52 | 0-2 | 10/28/2019 | 10:14 | 25 | |
| | XRF53 | 0-2 | 10/28/2019 | 10:17 | 43 | |
| | XRF54 | 0-2 | 10/28/2019 | 10:20 | 87 | |
| | XRF55 | 0-2 | 10/28/2019 | 10:24 | 43 | |
| | XRF56 | 0-2 | 10/23/2019 | 14:21 | 30 | |
| | SR02-CS-04-02 (XRF57) | 0-2 | 10/23/2019 | 14:10 | 16 | |

| Waste Rock Pile Location | Sample Identification | Depth (inches) | Date | Time | Arsenic Concentration (mg/kg) | Final Sample Location Comments |
|---|---|---|---|---|---|---|
| SR-02 | SR02-CS-11-02 (XRF58) | 0-2 | 10/24/2019 | 16:03 | 13 | |
| | SR02-CS-12-02 (XRF59) | 0-2 | 10/24/2019 | 16:20 | 31 | |
| | XRF60 | 0-2 | 10/28/2019 | 9:50 | 69 | |
| | XRF60 (DUP) | 0-2 | 10/28/2019 | 9:50 | 69 | |
| | XRF61 | 0-2 | 10/28/2019 | 9:55 | 47 | |
| | XRF62 | 0-2 | 10/28/2019 | 10:04 | 20 | |
| | SR02-CS-08-02 (XRF63) | 0-2 | 10/24/2019 | 15:31 | 59 | |
| | SR02-CS-09-02 (XRF64) | 0-2 | 10/24/2019 | 15:41 | 48 | |
| | XRF65 | 0-2 | 10/28/2019 | 11:35 | 45 | |
| | XRF66 | 0-2 | 10/28/2019 | 11:50 | 61 | |
| | XRF67 | 0-2 | 10/28/2019 | 11:54 | 29 | |
| | XRF68 | 0-2 | 10/28/2019 | 11:58 | 25 | |
| | XRF69 | 0-2 | 10/28/2019 | 12:02 | 24 | |
| | XRF70 | 0-2 | 10/28/2019 | 12:06 | 36 | |
| | XRF71 | 0-2 | 10/28/2019 | 12:10 | 32 | |
| SR-03 | SR03-CS-03-02 (XRF1) | 0-2 | 10/4/2019 | 8:00 | 67 | |
| | XRF2 | 0-2 | 10/4/2019 | 10:42 | 88 | |
| | XRF3 | 0-2 | 10/4/2019 | 10:48 | 53 | |
| | XRF4 | 0-2 | 10/4/2019 | 10:45 | 78 | |
| | XRF5 | 0-2 | 10/7/2019 | 7:44 | 48 | |
| | XRF6 | 0-2 | 10/7/2019 | 7:47 | 110 | |
| | XRF7 | 0-2 | 10/7/2019 | 7:59 | 42 | |
| | XRF8 | 0-2 | 10/7/2019 | 7:52 | 170 | Native Bedrock |
| | XRF9 | 0-2 | 10/7/2019 | 7:49 | 77 | |
| | SR03-CS-04-02 (XRF10) | 0-2 | 10/4/2019 | 8:30 | 60 | |
| | XRF11 | 0-2 | 10/7/2019 | 8:14 | 190 | |
| | XRF11 (DUP) | 0-2 | 10/7/2019 | 8:14 | 190 | |
| | SR03-CS-05-02 (XRF12) | 0-2 | 10/7/2019 | 8:01 | 72 | |
| | SR03-CS-06-02 (XRF13) | 0-2 | 10/7/2019 | 8:29 | 70 | |
| | XRF14 | 0-2 | 10/7/2019 | 8:25 | 49 | Native Bedrock |
| | XRF15 | 0-2 | 10/7/2019 | 8:22 | 210 | Native Bedrock |
| | XRF16 | 0-2 | 10/7/2019 | 8:16 | 64 | |
| | XRF17 | 0-2 | 10/7/2019 | 8:38 | 37 | |
| | XRF18 | 0-2 | 10/7/2019 | 8:40 | 71 | |
| | XRF19 | 0-2 | 10/7/2019 | 8:44 | 170 | |
| | XRF20 | 0-2 | 10/7/2019 | 9:09 | 110 | |
| | XRF20 (DUP) | 0-2 | 10/7/2019 | 9:09 | 130 | |
| | XRF21 | 0-2 | 10/7/2019 | 9:06 | 17 | |
| | XRF22 | 0-2 | 10/7/2019 | 9:03 | 13 | |
| | XRF23 | 0-2 | 10/7/2019 | 9:23 | 66 | Native Bedrock |
| | XRF24 | 0-2 | 10/7/2019 | 9:25 | 120 | Native Bedrock |
| | XRF24 (DUP) | 0-2 | 10/7/2019 | 9:25 | 120 | Native Bedrock |
| | XRF25 | 0-2 | 10/4/2019 | 10:36 | 54 | |
| | XRF26 | 0-2 | 10/4/2019 | 10:32 | 190 | Native Bedrock |
| | XRF27 | 0-2 | 10/4/2019 | 10:25 | 290 | Native Bedrock |
| | XRF28 | 0-2 | 10/4/2019 | 10:29 | 65 | Native Bedrock |
| | XRF29 | 0-2 | 10/4/2019 | 10:21 | 150 | Native Bedrock |
| | XRF30 | 0-2 | 10/4/2019 | 10:16 | 120 | |
| | XRF30 (DUP) | 0-2 | 10/4/2019 | 10:16 | 110 | |
| | XRF31 | 0-2 | 10/4/2019 | 10:12 | 72 | Native Bedrock |

| Waste Rock Pile Location | Sample Identification | Depth (inches) | Date | Time | Arsenic Concentration (mg/kg) | Final Sample Location Comments |
|---|---|---|---|---|---|---|
| SR-03 | XRF32 | 0-2 | 10/4/2019 | 10:09 | 240 | Native Bedrock |
| | XRF33 | 0-2 | 10/4/2019 | 10:02 | 240 | Native Bedrock |
| | SR03-CS-02-02 (XRF34) | 0-2 | 10/4/2019 | 7:40 | 41 | |
| | XRF35 | 0-2 | 10/4/2019 | 9:48 | 46 | Native Bedrock |
| | XRF36 | 0-2 | 10/4/2019 | 9:54 | 67 | Native Bedrock |
| | XRF37 | 0-2 | 10/4/2019 | 9:56 | 250 | Native Bedrock |
| | XRF38 | 0-2 | 10/4/2019 | 9:58 | 110 | Native Bedrock |
| | XRF39 | 0-2 | 10/4/2019 | 9:44 | 150 | Native Bedrock |
| | XRF40 | 0-2 | 10/4/2019 | 9:40 | 89 | Native Bedrock |
| | XRF41 | 0-2 | 10/4/2019 | 9:19 | 79 | |
| | XRF42 | 0-2 | 10/4/2019 | 9:23 | 42 | |
| | XRF43 | 0-2 | 10/4/2019 | 9:15 | 28 | |
| | XRF43 (DUP) | 0-2 | 10/4/2019 | 9:15 | 36 | |
| | SR03-CS-07-02 (XRF44) | 0-2 | 10/7/2019 | 8:51 | 86 | |
| | XRF45 | 0-2 | 10/7/2019 | 9:21 | 42 | |
| | XRF46 | 0-2 | 10/7/2019 | 9:59 | 21 | |
| | XRF47 | 0-2 | 10/7/2019 | 10:00 | 19 | |
| | XRF48 | 0-2 | 10/7/2019 | 10:02 | 6.4 | |
| | XRF49 | 0-2 | 10/7/2019 | 10:28 | 62 | |
| | XRF50 | 0-2 | 10/7/2019 | 10:30 | 76 | |
| | XRF51 | 0-2 | 10/7/2019 | 10:33 | 190 | Native Bedrock |
| | SR03-CS-01-02 (XRF52) | 0-2 | 10/4/2019 | 7:30 | 42 | |
| | SR03-CS-09-02 (XRF53) | 0-2 | 10/7/2019 | 9:45 | 60 | |
| | SR03-CS-08-02 (XRF54) | 0-2 | 10/7/2019 | 9:32 | 70 | |
| SR-08 | SR08-CS-03-02 (XRF1) | 0-2 | 10/8/2019 | 7:44 | 11 | |
| | XRF2 | 0-2 | 10/8/2019 | 8:53 | 14 | |
| | XRF3 | 0-2 | 10/8/2019 | 8:45 | 48 | |
| | XRF4 | 0-2 | 10/8/2019 | 8:38 | 9.4 | |
| | XRF5 | 0-2 | 10/8/2019 | 8:41 | 5.9 | |
| | XRF6 | 0-2 | 10/7/2019 | 15:38 | 14 | |
| | XRF7 | 0-2 | 10/8/2019 | 8:54 | 17 | |
| | XRF8 | 0-2 | 10/8/2019 | 8:50 | 28 | |
| | SR08-CS-04-02 (XRF9) | 0-2 | 10/8/2019 | 8:00 | 31 | |
| | XRF10 | 0-2 | 10/7/2019 | 15:12 | 66 | |
| | XRF10 (DUP) | 0-2 | 10/7/2019 | 15:12 | 72 | |
| | XRF11 | 0-2 | 10/7/2019 | 15:23 | 63 | |
| | XRF12 | 0-2 | 10/7/2019 | 15:28 | 59 | |
| | XRF13 | 0-2 | 10/7/2019 | 15:32 | 13 | |
| | XRF14 | 0-2 | 10/8/2019 | 8:35 | 69 | |
| | SR08-CS-01-02 (XRF15) | 0-2 | 10/8/2019 | 7:20 | 61 | |
| | XRF16 | 0-2 | 10/7/2019 | 15:06 | 16 | |
| | XRF17 | 0-2 | 10/7/2019 | 15:00 | 16 | |
| | XRF18 | 0-2 | 10/7/2019 | 14:54 | 51 | |
| | SR08-CS-02-02 (XRF19) | 0-2 | 10/8/2019 | 7:32 | 43 | |
| | XRF20 | 0-2 | 10/7/2019 | 14:47 | <4.5 | |
| | XRF20 (DUP) | 0-2 | 10/7/2019 | 14:47 | 14 | |
| | SR08-CS-05-02 (XRF21) | 0-2 | 10/8/2019 | 8:12 | 85 | |

| Waste Rock Pile Location | Sample Identification | Depth (inches) | Date | Time | Arsenic Concentration (mg/kg) | Final Sample Location Comments |
|---|---|---|---|---|---|---|
| SR-08 | XRF21 (DUP) | 0-2 | 10/8/2019 | 8:12 | 85 | |
| | XRF21 (DUP) | 0-2 | 10/8/2019 | 8:12 | 74 | |
| | XRF22 | 0-2 | 10/8/2019 | 8:58 | 12 | |
| | XRF23 | 0-2 | 10/8/2019 | 9:01 | 94 | |
| | XRF24 | 0-2 | 10/8/2019 | 9:05 | 38 | |

Notes

XRF = x-ray fluorescence

DUP = duplicate sample

mg/kg = milligram per kilogram

# Table 2

## Final Confirmation Soil Samples - Analytical Data Summary Results

### Saddle Rock Interim Remedial Action Project

### Wenatchee, Washington

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Analyte | Arsenic | Barium | Iron | Lead | Manganese | Mercury | Selenium | Silver |
| | | | | | | MTCA A/B Cleanup Level | 20 | 16,000 | 56,000 | 250 | 3,700 | 2 | 400 | 400 |
| | | | | | | 90th Percentile Cleanup Level | 95 | -- | -- | -- | -- | -- | -- | -- |
| | | | | | | TEE (Plants) | N/A | 500 | NE | 50 | 1,100 | 0.3 | 1 | 2 |
| | | | | | | TEE (Soil Biota) | N/A | NE | NE | 500 | NE | 0.1 | 70 | NE |
| | | | | | | TEE (Wildlife) | N/A | 102 | NE | 118 | 1,500 | 5.5 | 0.3 | NE |
| | | | | | | Units | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| Waste Rock Pile Location | Sample Identification | Sample Date | Start Depth | End Depth | Depth Unit | XRF (mg/kg As) | | | | | | | | |
| SR01 | SR01-CS-01-02 | 10/29/2019 | 0 | 2 | ft | 52 | 86 | 13 | 42,000 | 9.2 | 1,300 | 0.12 | 0.58 | 0.70 U |
| | SR01-CS-02-02 | 10/29/2019 | 0 | 2 | ft | 120 | 140 | 80 | 38,000 | 14 | 1,200 | 0.27 | 0.77 | 2.6 |
| | SR01-CS-03-02 | 10/29/2019 | 0 | 2 | ft | 86 | 55 | 39 | 26,000 | 8.3 | 1,700 | 0.054 | 0.60 | 0.66 U |
| | SR01-CS-04-02 | 10/29/2019 | 0 | 2 | ft | 23 | 19 | 110 | 24,000 | 6.0 | 800 | 0.24 | 0.50 | 0.67 U |
| | SR01-CS-05-02 | 10/29/2019 | 0 | 2 | ft | 63 | 68 | 81 | 28,000 | 13 | 1,200 | 0.16 | 0.72 | 0.86 |
| | SR01-CS-06-02 | 10/29/2019 | 0 | 2 | ft | 56 | 100 J | 77 J | 38,000 | 11 | 1,200 J | 0.22 J | 0.61 | 1.4 J |
| | DUP-2 | 10/29/2019 | 0 | 2 | ft | - | 130 J | 57 J | 43,000 | 9.9 | 1,900 J | 0.29 J | 0.63 | 2.9 J |
| SR02 | SR02-CS-01-02 | 10/23/2019 | 0 | 2 | ft | 44 | 61 | 10 | 32,000 | 5.6 | 480 | 0.21 | 0.35 | 0.72 U |
| | SR02-CS-02-02 | 10/23/2019 | 0 | 2 | ft | 27 | 27 | 59 | 35,000 | 6.5 | 610 | 0.49 | 0.47 | 0.78 |
| | SR02-CS-03-02 | 10/23/2019 | 0 | 2 | ft | 36 | 36 | 99 | 23,000 | 4.4 | 830 | 0.35 | 0.49 | 0.98 |
| | SR02-CS-04-02 | 10/23/2019 | 0 | 2 | ft | 16 | 12 | 98 | 21,000 | 3.7 | 660 | 0.043 | 0.34 | 0.69 U |
| | SR02-CS-05-02 | 10/24/2019 | 0 | 2 | ft | 32 | 33 | 61 | 35,000 | 5.5 | 570 | 0.36 | 0.50 | 1.7 |
| | SR02-CS-06-02 | 10/24/2019 | 0 | 2 | ft | 71 | 77 | 100 | 25,000 | 5.0 | 390 | 0.19 | 0.39 | 1.6 |
| | SR02-CS-07-02 | 10/24/2019 | 0 | 2 | ft | 17 | 54 | 98 | 29,000 | 5.2 | 420 | 0.044 | 0.27 U | 0.89 |
| | SR02-CS-08-02 | 10/24/2019 | 0 | 2 | ft | 59 | 51 | 110 | 39,000 | 5.5 | 580 | 0.10 | 0.32 | 2.4 |
| | SR02-CS-09-02 | 10/24/2019 | 0 | 2 | ft | 48 | 52 | 79 | 18,000 | 9.3 | 350 | 0.16 | 0.64 | 7.7 |
| | SR02-CS-10-02 | 10/24/2019 | 0 | 2 | ft | 40 | 50 | 150 | 21,000 | 7.2 | 360 | 0.047 | 0.67 | 1.5 |
| | SR02-CS-11-02 | 10/24/2019 | 0 | 2 | ft | 13 | 86 | 100 | 26,000 | 5.2 | 330 | 0.080 | 0.37 | 0.86 |
| | SR02-CS-12-02 | 10/24/2019 | 0 | 2 | ft | 31 | 23 | 150 | 24,000 | 6.0 | 510 | 0.035 | 0.42 | 0.77 |
| SR03 | SR03-CS-01-02 | 10/4/2019 | 0 | 2 | ft | 42 | 40 | 78 | 13,000 | 7.0 | 390 | 0.043 | 0.33 | 4.6 |
| | SR03-CS-02-02 | 10/4/2019 | 0 | 2 | ft | 41 | 36 | 99 | 21,000 | 6.2 | 420 | 0.035 | 0.29 | 2.5 |
| | SR03-CS-03-02 | 10/4/2019 | 0 | 2 | ft | 67 | 67 | 51 | 12,000 | 5.4 | 170 | 0.28 | 0.70 | 8.7 |
| | SR03-CS-04-02 | 10/4/2019 | 0 | 2 | ft | 60 | 52 | 29 | 5,300 | 2.4 | 1.7 | 2.4 | 1.5 | 7.5 |
| | SR03-CS-05-02 | 10/7/2019 | 0 | 2 | ft | 72 | 91 | 75 | 11,000 | 5.8 | 160 | 0.070 | 1.2 | 9.2 |
| | SR03-CS-06-02 | 10/7/2019 | 0 | 2 | ft | 70 | 62 | 110 | 22,000 | 6.4 | 310 | 0.068 | 0.66 | 3.3 |
| | SR03-CS-07-02 | 10/7/2019 | 0 | 2 | ft | 86 | 81 | 93 | 18,000 | 6.9 | 310 | 0.14 | 0.51 | 2.6 |
| | SR03-CS-08-02 | 10/7/2019 | 0 | 2 | ft | 70 | 64 | 110 | 27,000 | 7.0 | 480 | 0.16 | 0.50 | 2.2 |
| | SR03-CS-09-02 | 10/7/2019 | 0 | 2 | ft | 60 | 52 | 94 | 28,000 | 7.2 | 600 | 0.13 | 0.46 | 1.8 |
| | SR03-CS-04-02-CI | 10/14/2019 | 0 | 2 | ft | - | 69 | 40 | 8,800 | 3.9 | 1.9 | 1.7 | 2.1 | 11 |
| SR08 | SR08-CS-01-02 | 10/8/2019 | 0 | 2 | ft | 61 | 69 | 110 | 26,000 | 5.0 | 390 | 0.089 | 0.37 | 1.6 |
| | SR08-CS-02-02 | 10/8/2019 | 0 | 2 | ft | 43 | 32 | 140 | 26,000 | 5.4 | 440 | 0.12 | 0.42 | 1.1 |
| | SR08-CS-03-02 | 10/8/2019 | 0 | 2 | ft | 11 | 8.2 | 110 | 20,000 | 5.6 | 350 | 0.034 | 0.27 U | 0.69 U |
| | SR08-CS-04-02 | 10/8/2019 | 0 | 2 | ft | 31 | 34 | 110 | 21,000 | 11 | 350 | 0.12 | 0.41 | 2.5 |
| | SR08-CS-05-02 | 10/8/2019 | 0 | 2 | ft | 85 | 55 | 120 | 21,000 | 8.7 | 370 | 0.13 J | 0.58 | 2.2 |
| | DUP-1 | 10/8/2019 | 0 | 2 | ft | - | 58 | 110 | 22,000 | 9.9 | 390 | 0.50 J | 0.72 | 2.0 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **Analyte** | **Arsenic** | **Barium** | **Iron** | **Lead** | **Manganese** | **Mercury** | **Selenium** | **Silver** |
| | | | | | | **MTCA A/B Cleanup Level** | **20** | **16,000** | **56,000** | **250** | **3,700** | **2** | **400** | **400** |
| | | | | | | **90th Percentile Cleanup Level** | **95** | **--** | **--** | **--** | **--** | **--** | **--** | **--** |
| | | | | | | **TEE (Plants)** | **N/A** | **500** | **NE** | **50** | **1,100** | **0.3** | **1** | **2** |
| | | | | | | **TEE (Soil Biota)** | **N/A** | **NE** | **NE** | **500** | **NE** | **0.1** | **70** | **NE** |
| | | | | | | **TEE (Wildlife)** | **N/A** | **102** | **NE** | **118** | **1,500** | **5.5** | **0.3** | **NE** |
| | | | | | | **Units** | **mg/kg** | **mg/kg** | **mg/kg** | **mg/kg** | **mg/kg** | **mg/kg** | **mg/kg** | **mg/kg** |
| **Waste Rock Pile Location** | **Sample Identification** | **Sample Date** | **Start Depth** | **End Depth** | **Depth Unit** | **XRF (mg/kg As)** | | | | | | | | |
| Close-In | SR01-US-03-2-4"-CI | 10/14/2019 | 2 | 4 | ft | - | **100 J** | **110** | **14,000 J** | **39 J** | **570 J** | **0.056** | **0.35** | **2.1** |
| | SR02-US-01-0-2"-CI | 10/14/2019 | 0 | 2 | ft | - | **50** | **100** | **17,000** | **36** | **360** | **0.050** | **0.53** | **4.5** |
| | SR03-US-05-4-6"-CI | 10/14/2019 | 4 | 6 | ft | - | **40** | **89** | **16,000** | **5.9** | **270** | **0.16** | **0.52** | **2.3** |
| | SR04-US-03-4-6"-CI | 10/15/2019 | 4 | 6 | ft | - | **150** | **80** | **19,000** | **7.9** | **370** | 0.028 U | 0.28 U | 0.70 U |
| | SR05-US-04-4-6"-CI | 10/15/2019 | 4 | 6 | ft | - | **620** | **180** | **19,000** | **6.6** | **330** | **0.092** | **0.50** | 0.72 U |
| | SR08-US-04-2-4"-CI | 10/14/2019 | 2 | 4 | ft | - | **340** | **84** | **13,000** | **35** | **94** | **0.099** | **5.3** | **21** |

**Notes:**

MTCA Method A cleanup levels shown if established. Method B cleanup level shown if no Method A cleanup level is established.

N/A = not applicable

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

TEE = terrestrial ecological evaluation value

As = Arsenic

U = Analyte was not detected at or greater than the listed reporting limit.

J = Estimated result.

NE = not established

**Bold** font type indicates that the analyte was detected at a concentration greater than the respective laboratory reporting limit.

**Grey shading** indicates that the detected result exceeds the specified MTCA Cleanup Level.

**Green shading** indicates that the detected result exceeds the 90th percentile background site-specific cleanup level.

**Blue Shading** indicates that the detected result exceeds the TEE value for plants.

**Yellow shading** indicates that the detected result exceeds the TEE value for soil biota.

**Orange shading** indicates that the detected result exceeds the TEE value for wildlife.

# Table 3

## XRF Sample Duplicate Analysis

### Saddle Rock Interim Remedial Action Project

### Wenatchee, Washington

| Waste Rock Pile Location | Sample Identification | Depth (inches) | Date | Time | Arsenic Concentration (mg/kg) | RPD |
|---|---|---|---|---|---|---|
| SR-01 | XRF9 | 0-2 | 10/29/2019 | 12:36 | 54 | 0.23 |
| | XRF9 (DUP) | 0-2 | 10/29/2019 | 12:36 | 68 | |
| | XRF20 | 0-2 | 10/29/2019 | 13:31 | 55 | 0.21 |
| | XRF20 (DUP) | 0-2 | 10/29/2019 | 13:31 | 68 | |
| | SR01-CS-06-02 (XRF29) | 0-2 | 10/29/2019 | 9:51 | 56 | 0.05 |
| | XRF29 (DUP) | 0-2 | 10/29/2019 | 9:51 | 59 | |
| SR-02 | XRF10 | 0-2 | 10/23/2019 | 10:16 | 68 | 0.13 |
| | XRF10 (DUP) | 0-2 | 10/23/2019 | 10:16 | 60 | |
| | XRF20 | 0-2 | 10/23/2019 | 11:08 | 70 | 0.00 |
| | XRF20 (DUP) | 0-2 | 10/23/2019 | 11:08 | 70 | |
| | XRF30 | 0-2 | 10/23/2019 | 12:03 | 36 | 0.25 |
| | XRF30 (DUP) | 0-2 | 10/23/2019 | 12:03 | 28 | |
| | XRF40 | 0-2 | 10/23/2019 | 12:26 | 17 | 0.19 |
| | XRF40 (DUP) | 0-2 | 10/23/2019 | 12:26 | 14 | |
| | XRF50 | 0-2 | 10/23/2019 | 13:57 | 41 | 0.08 |
| | XRF50 (DUP) | 0-2 | 10/23/2019 | 13:57 | 38 | |
| | XRF60 | 0-2 | 10/28/2019 | 9:50 | 69 | 0.00 |
| | XRF60 (DUP) | 0-2 | 10/28/2019 | 9:50 | 69 | |
| SR-03 | XRF11 | 0-2 | 10/7/2019 | 8:14 | 190 | 0.00 |
| | XRF11 (DUP) | 0-2 | 10/7/2019 | 8:14 | 190 | |
| | XRF20 | 0-2 | 10/7/2019 | 9:09 | 110 | 0.17 |
| | XRF20 (DUP) | 0-2 | 10/7/2019 | 9:09 | 130 | |
| | XRF24 | 0-2 | 10/7/2019 | 9:25 | 120 | 0.00 |
| | XRF24 (DUP) | 0-2 | 10/7/2019 | 9:25 | 120 | |
| | XRF30 | 0-2 | 10/4/2019 | 10:16 | 120 | 0.09 |
| | XRF30 (DUP) | 0-2 | 10/4/2019 | 10:16 | 110 | |
| | XRF43 | 0-2 | 10/4/2019 | 9:15 | 28 | 0.25 |
| | XRF43 (DUP) | 0-2 | 10/4/2019 | 9:15 | 36 | |
| SR-08 | XRF10 | 0-2 | 10/7/2019 | 15:12 | 66 | 0.09 |
| | XRF10 (DUP) | 0-2 | 10/7/2019 | 15:12 | 72 | |
| | XRF20 | 0-2 | 10/7/2019 | 14:47 | 4.5 | 1.03 |
| | XRF20 (DUP) | 0-2 | 10/7/2019 | 14:47 | 14 | |
| | SR08-CS-05-02 (XRF21) | 0-2 | 10/8/2019 | 8:12 | 85 | 0.14 |
| | XRF21 (DUP) | 0-2 | 10/8/2019 | 8:12 | 85 | 0.00 |
| | XRF21 (DUP) | 0-2 | 10/8/2019 | 8:12 | 74 | 0.14 |

**Notes:**

RPD = Relative percent difference

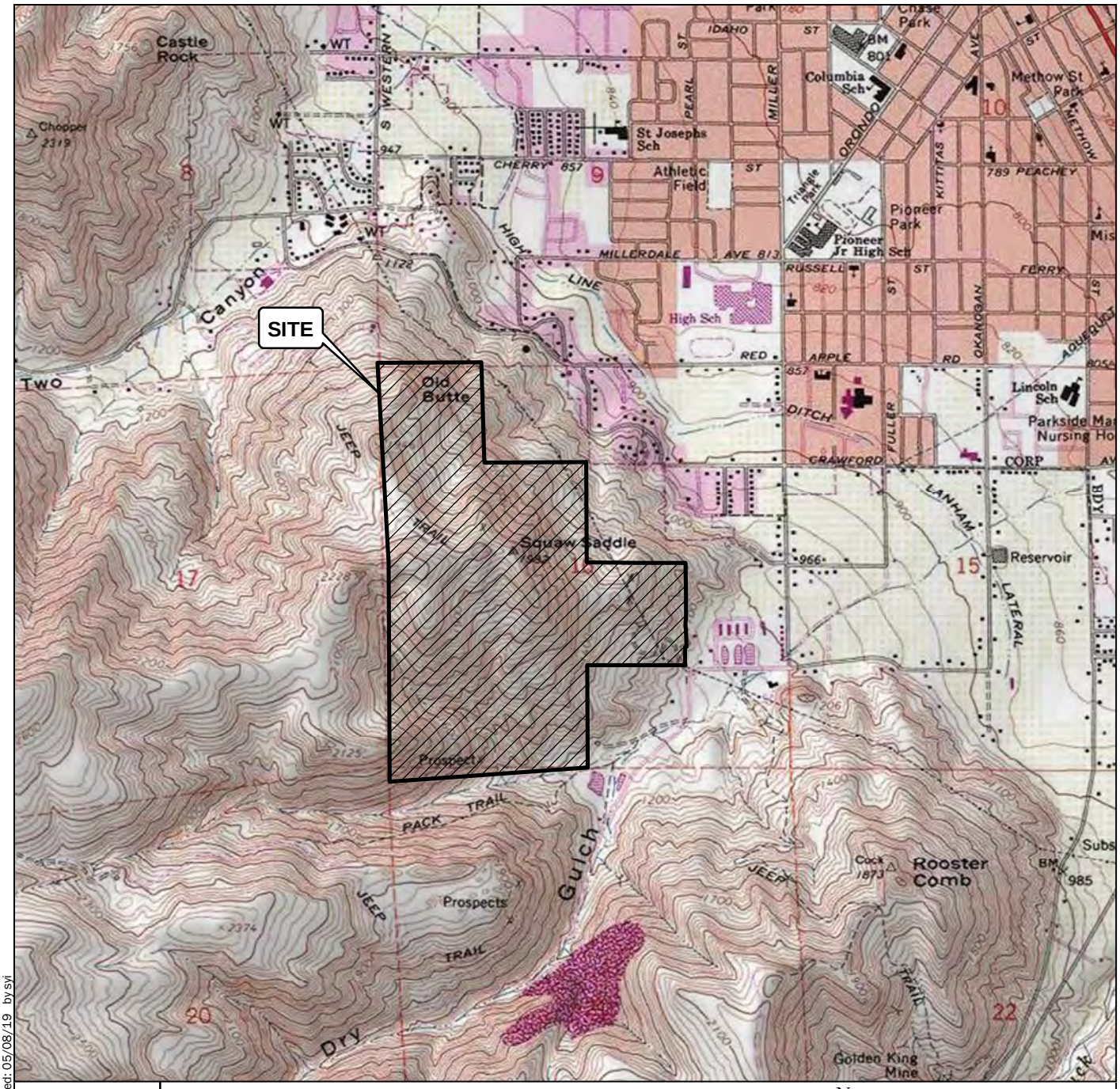
XRF = x-ray fluorescence

DUP = duplicate sample

mg/kg = milligram per kilogram

FIGURES

GeoEngineers




N
W E
S

2,000 0 2,000

Feet

## Vicinity Map

Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

**Figure 1**

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

P:\4\4296008\GIS\MXD\4296008_T200_F01_Vicinity Map.mxd Date Exported: 05/08/19 by syi

SR01

SR04

SR05

SR06

SR03

SR08

SR02

SR01

Saddle Rock
Trailhead
Parking Lot

## Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base survey from Dawson Surveying and Lidar topo data from City Of Wenatchee dated 01/08/19. Survey of waste rock piles and samples from 48 Degree North Land Survey dated 06/05/19.

Vertical Datum: NAVD 88.

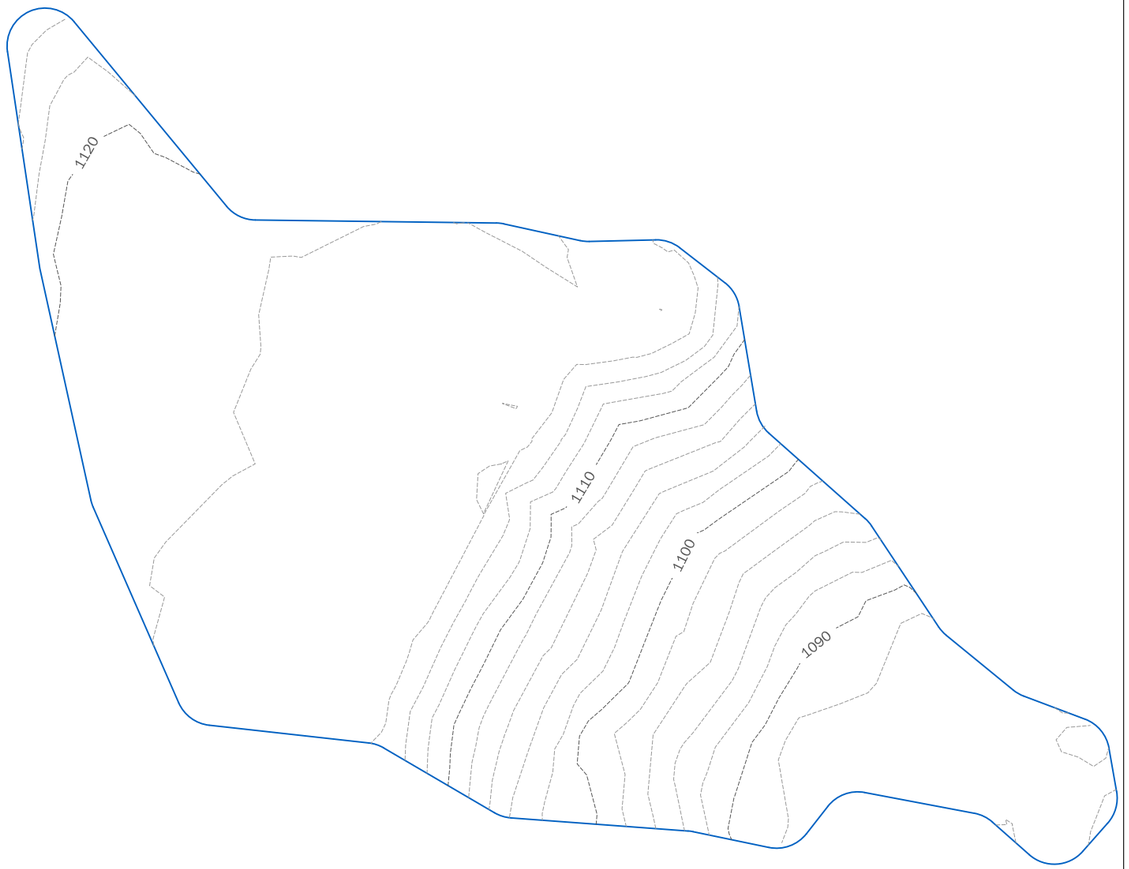
Projection: NAD83 Washington State Planes, North Zone, US Foot.

400

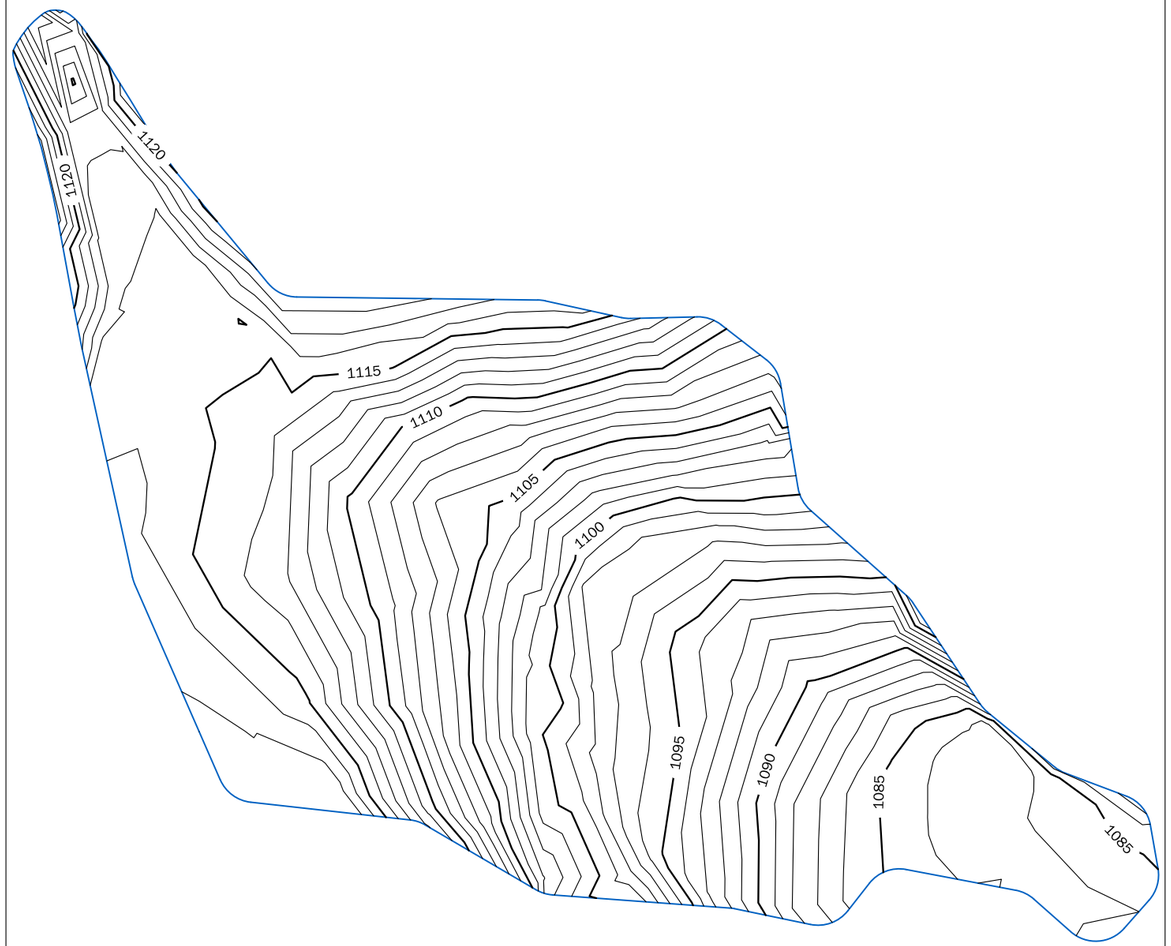
Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\41\4296008\CAD\01\Construction Report\4296008_F02_Site Plan.dwg TAB:F02 Date Exported: 12/05/19 - 7:47 by syi




## SR01 - Pre-Construction Elevation Contours With Lateral Limit Boundary




## SR01 - Post-Construction Elevation Contours With Modified Lateral Limit Boundary

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

N
W E
S

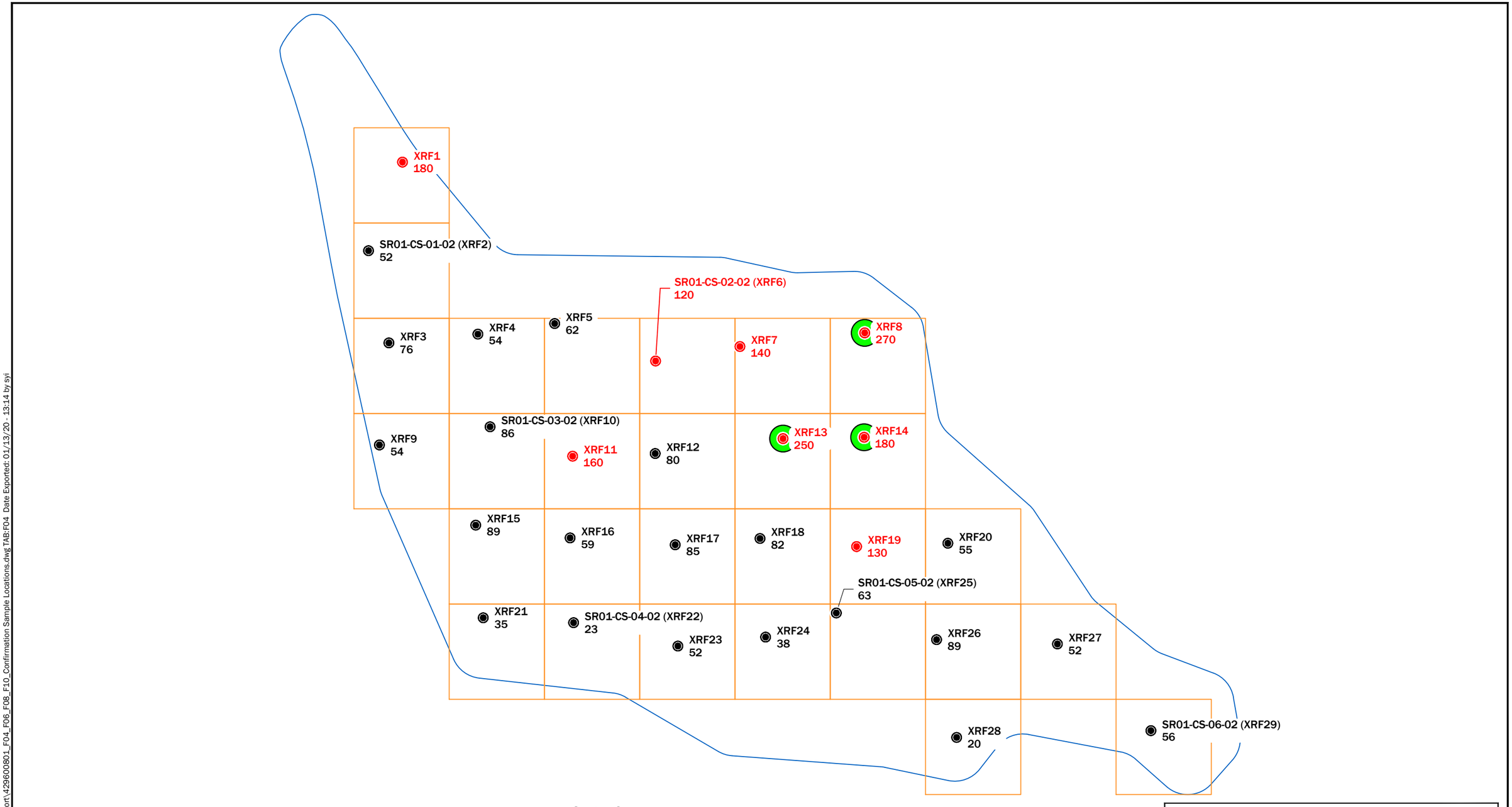
20 0 20
Feet

**Pre- and Post-Excavation Limits – SR-01**

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\4\4296008\CAD\01\Construction Report\429600801_F03_F05_F07_F09_Excavation Limits.dwg TAB:F03 Date Exported: 12/05/19 - 7:48 by syi




P:\4\4296008\CAD\01\Construction Report\4296008_F04_F06_F08_F10_Confirmation Sample Locations.dwg TAB:F04 Date Exported: 01/13/20 - 13:14 by syi

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

**Legend**

| | |
|---|---|
| XRF1 or SR01-CS-06-02 (XRF29) 56 | XRF and/or Soil Sample Location with Arsenic Concentration (mg/kg) |
| XRF1 or SR01-CS-02-02 (XRF6) 120 | XRF Arsenic Results Greater Than 95 mg/kg (milligrams per kilogram) |
| | 15 Ft. x 15 Ft. Sampling Grid |
| | Native Bedrock |

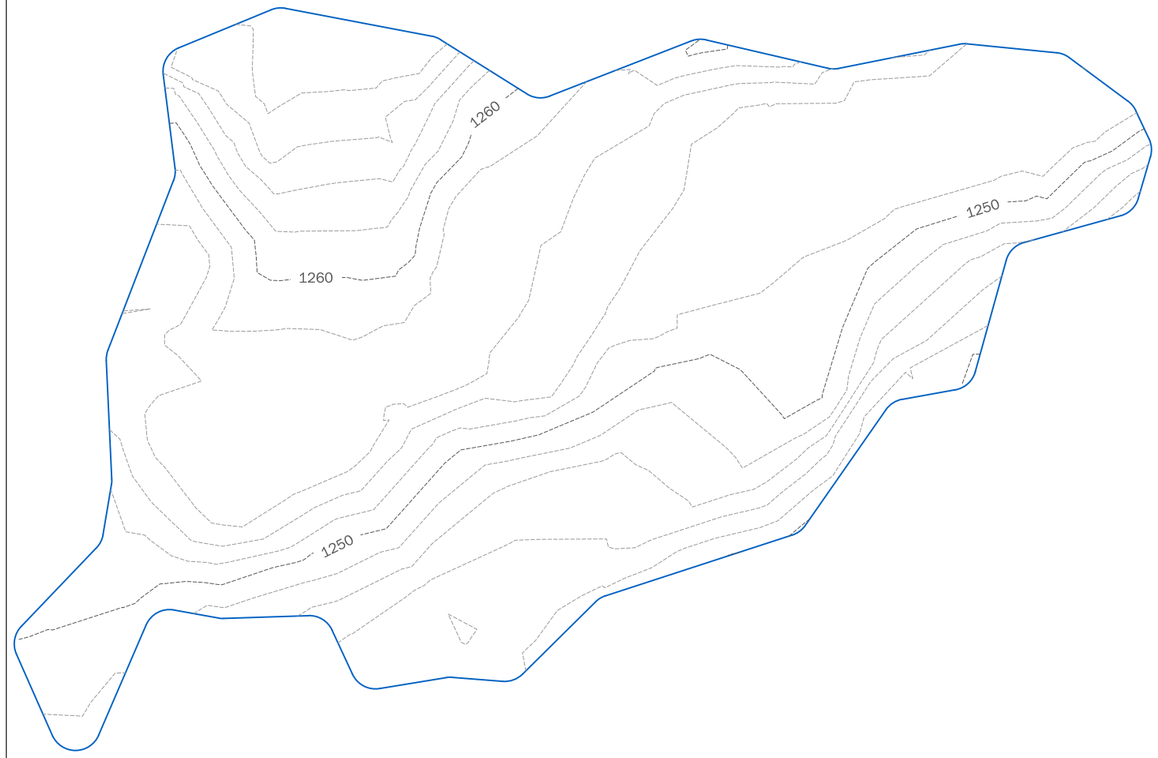
N W E S

15 0 15
Feet

# Confirmation Sample Locations – SR-01

Saddle Rock Interim Remedial Action Project

GeoEngineers




## SR02 - Pre-Construction Elevation Contours With Lateral Limit Boundary

## SR02 - Post-Construction Elevation Contours With Modified Lateral Limit Boundary

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

N
W E
S

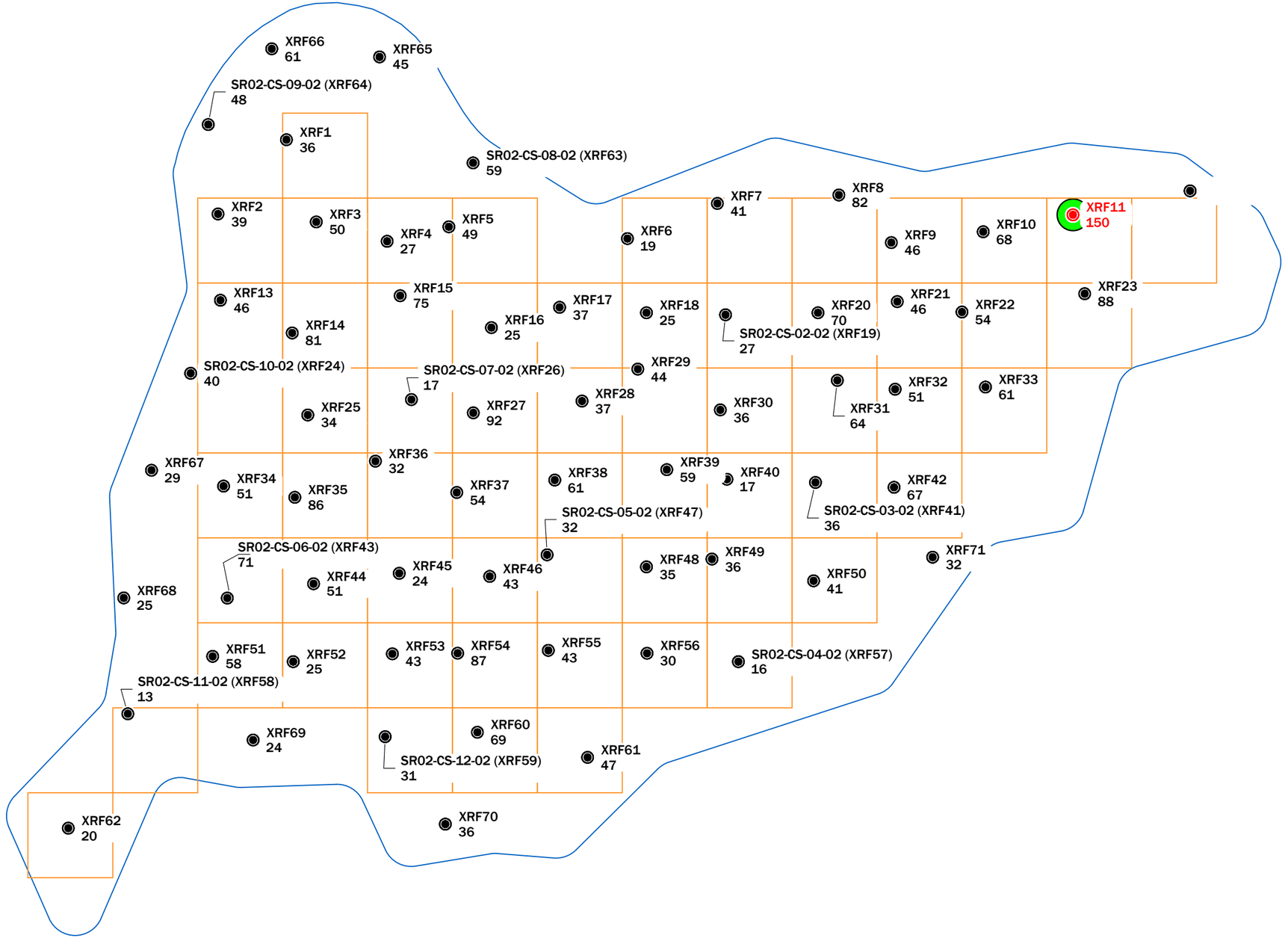
30 0 30
Feet

**Pre- and Post-Excavation Limits – SR-02**

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\4\4296008\CAD\01\Construction Report\4296008801_F03_F05_F07_F09_Excavation Limits.dwg TAB:F05 Date Exported: 12/05/19 - 7:49 by syi




Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

**Legend**

XRF2 or SR02-CS-12-02 (XRF59) 31 — XRF and/or Soil Sample Location with Arsenic Concentration (mg/kg)

XRF11 150 — XRF Arsenic Results Greater Than 95 mg/kg (milligrams per kilogram)

15 Ft. x 15 Ft. Sampling Grid

Native Bedrock

N W E S

20 0 20
Feet

# Confirmation Sample Locations – SR-02

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\14296008\CAD\01\Construction Report\429600801_F04_F06_F08_F10_Confirmation Sample Locations.dwg TAB:F06 Date Exported: 01/13/20 - 13:15 by syi

## SR03 - Pre-Construction Elevation Contours With Lateral Limit Boundary

## SR03 - Post-Construction Elevation Contours With Modified Lateral Limit Boundary

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

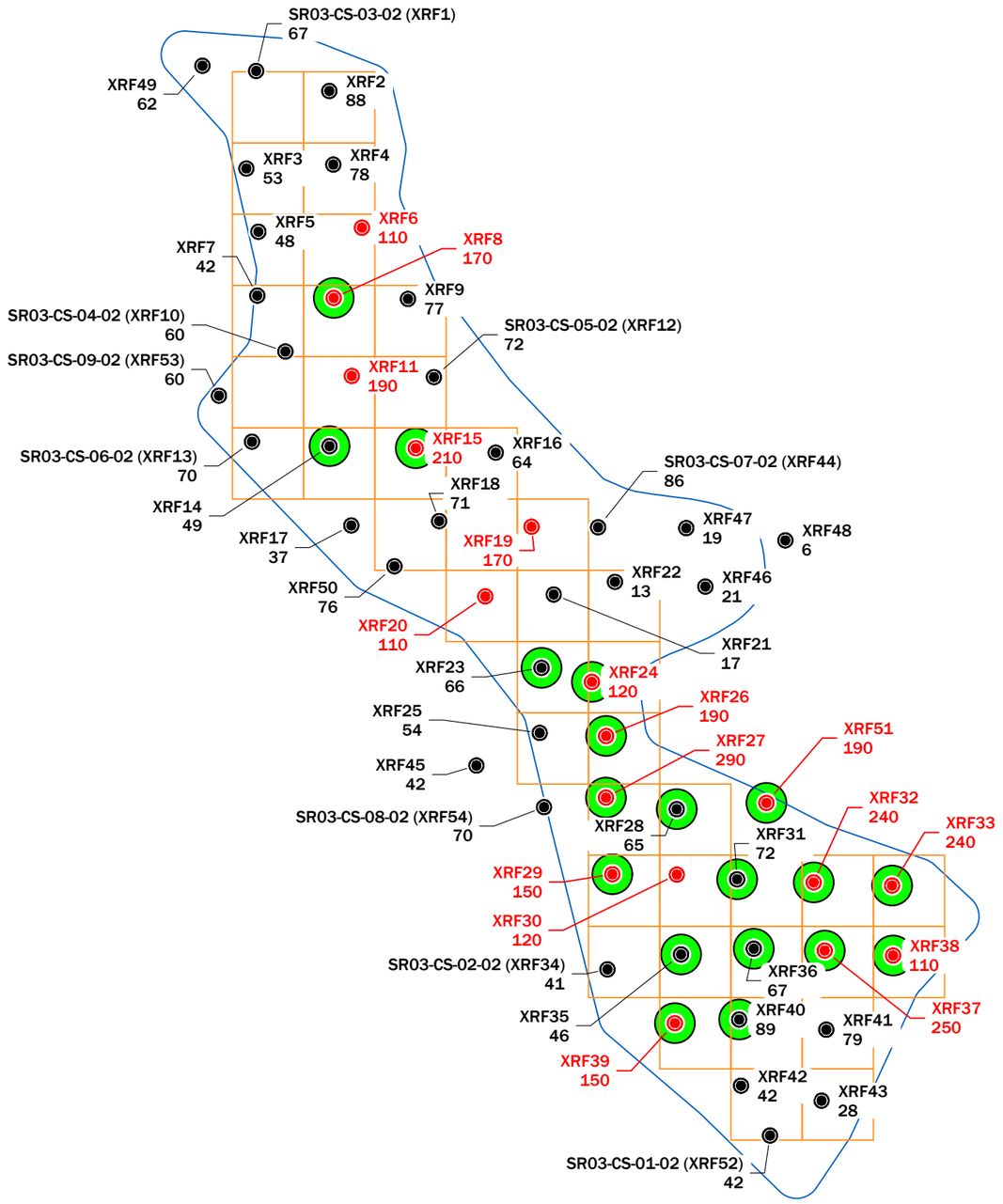
30

**Pre- and Post-Excavation Limits – SR-03**

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\41\4296008\CAD\01\Construction Report\4296008_F03_F05_F07_F09_Excavation Limits.dwg TAB:F07 Date Exported: 12/05/19 - 7:49 by syi




Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

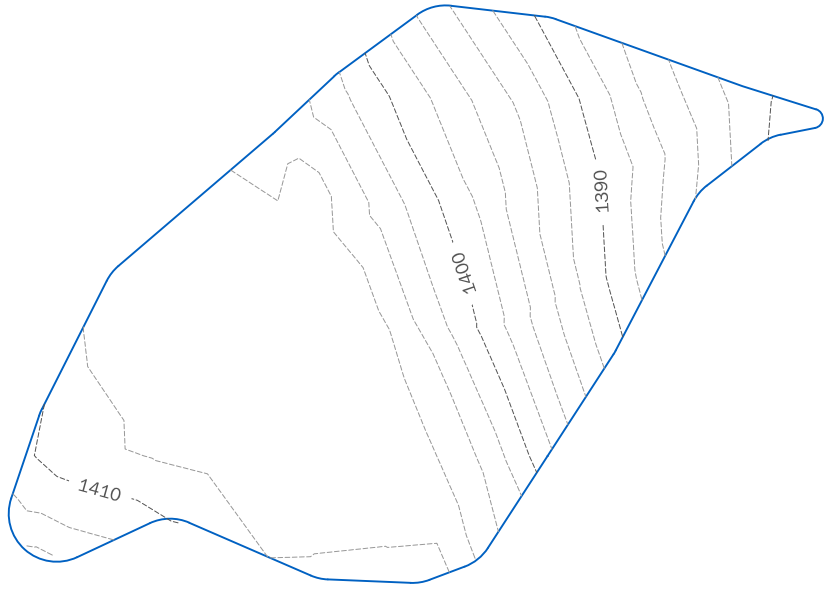
30

**Confirmation Sample Locations – SR-03**

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\14296008\CAD\01\Construction Report\429600801_F04_F06_F08_F10_Confirmation Sample Locations.dwg TAB:F08 Date Exported: 01/13/20 - 13:19 by syi




## SR08 - Pre-Construction Elevation Contours With Lateral Limit Boundary

## SR08 - Post-Construction Elevation Contours With Modified Lateral Limit Boundary

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

N W E S

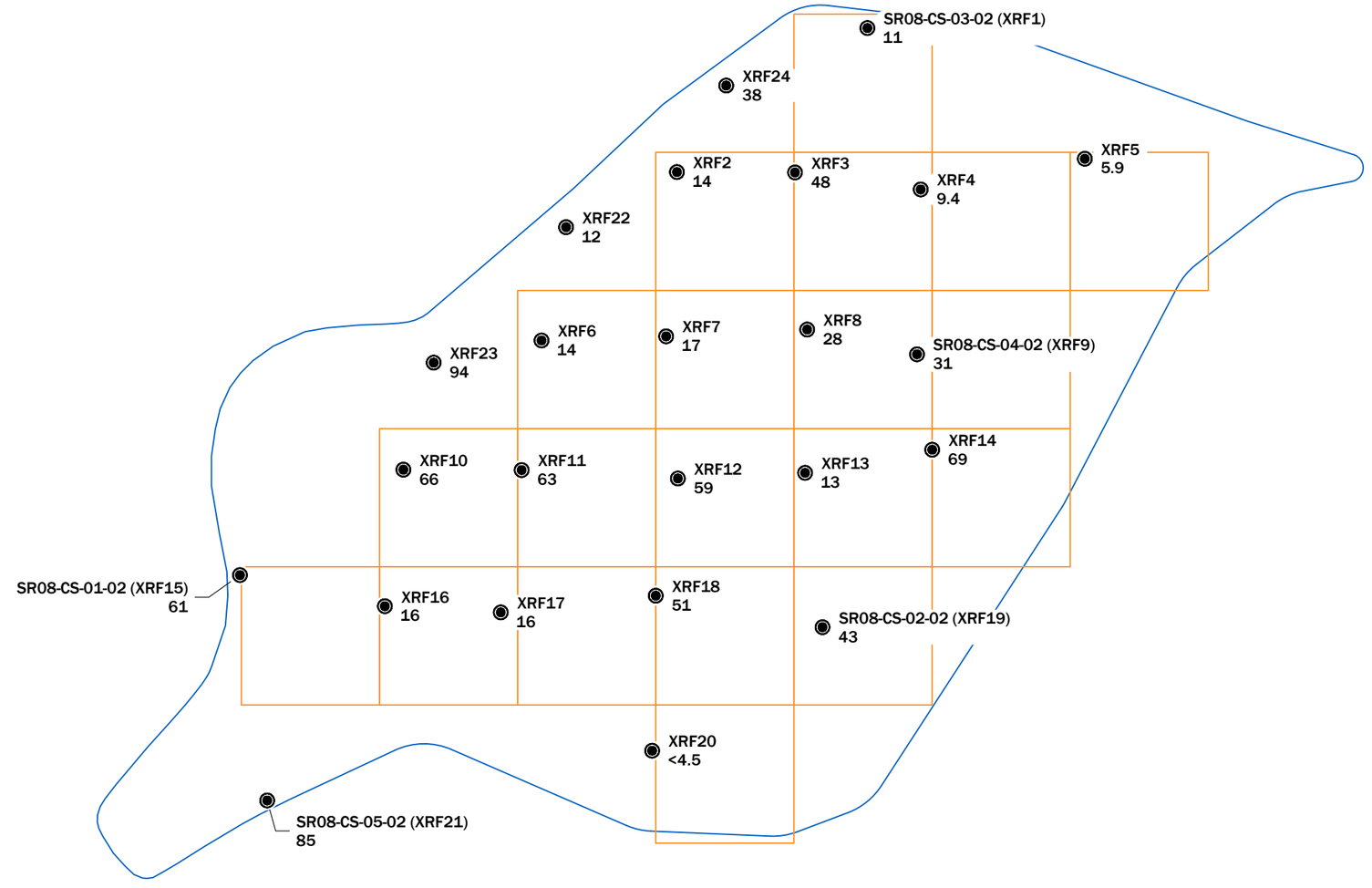
20 0 20
Feet

**Pre- and Post-Excavation Limits – SR-08**

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\A\4296008\CAD\01\Construction Report\429600801_F03_F05_F07_F09_Excavation Limits.dwg TAB:F09 Date Exported: 12/05/19 - 7:49 by syi




Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Survey background from 48 Degree North dated 11/04/19.

Vertical Datum: NAVD 88.

Projection: NAD83 Washington State Planes, North Zone, US Foot.

**Legend**

XRF2 or SR08-CS-02-02 (XRF19) 43 — XRF and/or Soil Sample Location with Arsenic Concentration (mg/kg)

15 Ft. x 15 Ft. Sampling Grid

N W E S

10 0 10
Feet

**Confirmation Sample Locations – SR-08**

Saddle Rock Interim Remedial Action Project

GeoEngineers

P:\14296008\CAD\01\Construction Report\429600801_F04_F06_F08_F10_Confirmation Sample Locations.dwg TAB:F10 Date Exported: 01/13/20 - 13:20 by syi

APPENDICES

GeoEngineers

# APPENDIX A
## Site Photographs

Photograph 1. Example silt fence (installed below SR-03).

Photograph 2. Water truck and exterior water hose used for dust suppression.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

04296-008-01 Date Exported: 10/09/2019

Photograph 3. Waste rock profile at SR-01.

Photograph 4. Native soil type (1) and typical sample location at SR-01.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 5. Native soil type (2) and adit entrance at SR-01.

Photograph 6. Native soil type (3) and native rock at SR-01.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 7. Tree stump in native soil type (3) at SR-01.

Photograph 8. Tree stump in native soil type (3) at SR-01.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 9. Post-excavation topography at SR-01. View to the north from the center of the excavation.

Photograph 10. Post-excavation topography at SR-01. View to the south.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

04296-008-01 Date Exported: 10/09/2019

Photograph 11. Post-excavation topography at SR-01. View to the east.

Photograph 12. Post-excavation topography and mulching work at SR-01. View to the north from the west side of the excavation.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

04296-008-01 Date Exported: 10/09/2019

Photograph 13. Waste rock profile and final excavation base limits at SR-02. View to the west.

Photograph 14. Native soil at SR-02.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 15. Additional excavated area to the northwest at SR-02. View to the west.

Photograph 16. Discovered vertical steel pipe/potential exploratory borehole at SR-02. View to the southwest.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 17. Northern vertical pipe cut off below final excavation grade at SR-02.

Photograph 18. Southern vertical pipe cut off below final excavation grade with shallow concrete seal in place.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Interim Remedial Action Project<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 19. Post-excavation topography at SR-02. View to the east.



04296-008-01 Date Exported: 10/09/2019

Photograph 20. Deep pocket of waste rock and native soil at SR-03.

Photograph 21. Native soil graded over deep pocket at SR-03. View to the northeast.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 22. Native bedrock (white color) exposed at final excavation limits at SR-03. View to the east.

Photograph 23. Post-excavation topography on the south side of SR-03. View to the southeast.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 24. Post-excavation topography in the center of SR-03. View to the east.

Photograph 25. Post-excavation topography on the north side of SR-03. View to the south.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 26. Post-excavation topography on the north side of SR-03. View to the east.

Photograph 27. Native soil sidewall near adit opening at SR-08.



04296-008-01 Date Exported: 10/09/2019

Photograph 28. Adit entrance at SR-08. View to the south.

Photograph 29. Post-excavation topography at SR-08. View to the west from the center of the excavation.



04296-008-01 Date Exported: 10/09/2019

Photograph 30. Post-excavation topography at SR-08. View to the east from the center of the excavation.

Photograph 31. Post-excavation topography at SR-08. View to the west from the bottom of the excavation.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

04296-008-01 Date Exported: 10/09/2019

Photograph 32. Adit at SR-01 filled and compacted in lifts.

Photograph 33. "Blewett Premium" barrow material used to fill SR-01.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 34. CDF material sealing adit at SR-02.

Photograph 35. Concrete and rebar sealing adit at SR-07.



04296-008-01 Date Exported: 10/09/2019

Photograph 36. Native soil used to seal adit at SR-08.

Photograph 37. Hydroseeding at SR-01. View to the east from above the excavation

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

Photograph 38. Hydroseeding at SR-02. View to the east from above the excavation

Photograph 39. Hydroseeding at SR-03. View to the south from the center of the excavation.

| Site Photographs September-October 2019 | |
|---|---|
| Saddle Rock Park – Phase 1 Interim Remedial Action<br>Wenatchee, Washington | |
| GeoEngineers | Appendix A |

04296-008-01 Date Exported: 10/09/2019

Photograph 40. Hydroseeding at SR-03. View to the north from the center of the excavation.

Photograph 41. Hydroseeding at SR-08. View to the south.



04296-008-01 Date Exported: 10/09/2019

Photograph 42. Hydroseeding at SR-08. View to the west from the bottom of the excavation.



04296-008-01 Date Exported: 10/09/2019

# APPENDIX B
## XRF Raw Data Table

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_04_19 #1.csv | 9/4/2019 | 7:00:46 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19 #1.csv | 9/5/2019 | 1:38:26 PM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19 #2.csv | 9/5/2019 | 1:39:26 PM | #2 | Soil | 9.9 | 9.81 | 29.68 | | | | | | | ND | | ND | | 49887 | | 820 | 566 | 57 | 6647 | 133 | 6799 | 132 | | 36 | 7 |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:38:26 PM | #1 | Cal Check | 14.86 | | 14.86 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:39:26 PM | #2 | Soil | 9.9 | 9.81 | 29.68 | | | | | | | ND | | ND | | 49887 | | 820 | 566 | 57 | 6647 | 133 | 6799 | 132 | | 36 | 7 |
| Res_543158_09_10_19 #1.csv | 9/10/2019 | 1:12:49 PM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #2.csv | 9/10/2019 | 1:16:22 PM | #2 | Lead Paint | 29.58 | | 29.58 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #3.csv | 9/10/2019 | 1:16:47 PM | #3 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #5.csv | 9/10/2019 | 1:17:37 PM | #5 | Lead Paint | 29.59 | | 29.59 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #6.csv | 9/10/2019 | 1:17:45 PM | #6 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #7.csv | 9/10/2019 | 1:18:19 PM | #7 | Lead Paint | 29.53 | | 29.53 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #8.csv | 9/10/2019 | 1:20:07 PM | #8 | Soil | 39.69 | 39.85 | 79.53 | | | | | | | ND | | 398 | | 93 | 91 | 30 | ND | 930 | | 23 | 18 | 3 | 4.1 | 0.9 | 40 | 3 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:12:49 PM | #1 | Cal Check | 14.87 | | 14.87 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:22 PM | #2 | Lead Paint | 29.58 | | 29.58 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:47 PM | #3 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:37 PM | #5 | Lead Paint | 29.59 | | 29.59 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:45 PM | #6 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:18:19 PM | #7 | Lead Paint | 29.53 | | 29.53 | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:20:07 PM | #8 | Soil | 39.69 | 39.85 | 79.53 | | | | | | | ND | | 398 | | 93 | 91 | 30 | ND | 930 | | 23 | 18 | 3 | 4.1 | 0.9 | 40 | 3 |
| Res_543158_09_12_19 #10.csv | 9/12/2019 | 8:25:56 AM | #10 | Soil | 3.55 | | 3.55 | | | | | | | | | | | | | | | | | ND | | 2055 | | 424 | ND | |
| Res_543158_09_12_19 #101.csv | 9/12/2019 | 1:53:37 PM | #101 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #102.csv | 9/12/2019 | 1:53:40 PM | #102 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #103.csv | 9/12/2019 | 1:54:13 PM | #103 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #104.csv | 9/12/2019 | 1:54:16 PM | #104 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #105.csv | 9/12/2019 | 1:54:41 PM | #105 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #107.csv | 9/12/2019 | 1:56:15 PM | #107 | Soil | 9.69 | | 9.69 | | | | | | | | | | | | | | | | | 1586 | | 173 | ND | | ND | |
| Res_543158_09_12_19 #108.csv | 9/12/2019 | 1:56:39 PM | #108 | Soil | 10.1 | | 10.1 | | | | | | | | | | | | | | | | | 1759 | | 176 | ND | | ND | |
| Res_543158_09_12_19 #109.csv | 9/12/2019 | 1:56:58 PM | #109 | Soil | 10.21 | | 10.21 | | | | | | | | | | | | | | | | | 2303 | | 164 | 327 | 85 | ND | |
| Res_543158_09_12_19 #11.csv | 9/12/2019 | 8:26:49 AM | #11 | Soil | 3.01 | | 3.01 | | | | | | | | | | | | | | | | | 10204 | | 1375 | ND | | ND | |
| Res_543158_09_12_19 #110.csv | 9/12/2019 | 1:57:25 PM | #110 | Soil | 10.54 | | 10.54 | | | | | | | | | | | | | | | | | 2282 | | 157 | 383 | 82 | ND | |
| Res_543158_09_12_19 #111.csv | 9/12/2019 | 1:57:47 PM | #111 | Soil | 10.57 | | 10.57 | | | | | | | | | | | | | | | | | 1594 | | 149 | ND | | ND | |
| Res_543158_09_12_19 #112.csv | 9/12/2019 | 1:58:27 PM | #112 | Soil | 9.93 | | 9.93 | | | | | | | | | | | | | | | | | 1752 | | 139 | ND | | ND | |
| Res_543158_09_12_19 #114.csv | 9/12/2019 | 1:58:57 PM | #114 | Soil | 10.14 | | 10.14 | | | | | | | | | | | | | | | | | 2157 | | 212 | ND | | ND | |
| Res_543158_09_12_19 #115.csv | 9/12/2019 | 2:29:25 PM | #115 | Soil | 10.48 | | 10.48 | | | | | | | | | | | | | | | | | 2034 | | 141 | 219 | 72 | 102 | 27 |
| Res_543158_09_12_19 #116.csv | 9/12/2019 | 2:29:55 PM | #116 | Soil | 10.6 | | 10.6 | | | | | | | | | | | | | | | | | 1833 | | 156 | 276 | 83 | ND | |
| Res_543158_09_12_19 #117.csv | 9/12/2019 | 2:30:19 PM | #117 | Soil | 10.48 | | 10.48 | | | | | | | | | | | | | | | | | 1425 | | 123 | ND | | ND | |
| Res_543158_09_12_19 #118.csv | 9/12/2019 | 2:30:48 PM | #118 | Soil | 10.61 | | 10.61 | | | | | | | | | | | | | | | | | 1029 | | 140 | ND | | ND | |
| Res_543158_09_12_19 #119.csv | 9/12/2019 | 3:04:32 PM | #119 | Soil | 10.52 | | 10.52 | | | | | | | | | | | | | | | | | 1902 | | 155 | ND | | 98 | 30 |
| Res_543158_09_12_19 #120.csv | 9/12/2019 | 3:05:06 PM | #120 | Soil | 10.68 | | 10.68 | | | | | | | | | | | | | | | | | 1501 | | 183 | ND | | ND | |
| Res_543158_09_12_19 #121.csv | 9/12/2019 | 3:05:28 PM | #121 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 2080 | | 143 | 422 | 77 | ND | |
| Res_543158_09_12_19 #122.csv | 9/12/2019 | 3:05:52 PM | #122 | Soil | 11.11 | | 11.11 | | | | | | | | | | | | | | | | | 2564 | | 166 | 311 | 84 | ND | |
| Res_543158_09_12_19 #123.csv | 9/12/2019 | 3:06:11 PM | #123 | Soil | 10.16 | | 10.16 | | | | | | | | | | | | | | | | | 2522 | | 186 | ND | | ND | |
| Res_543158_09_12_19 #124.csv | 9/12/2019 | 3:06:34 PM | #124 | Soil | 10.01 | | 10.01 | | | | | | | | | | | | | | | | | 2098 | | 184 | 330 | 96 | 107 | 35 |
| Res_543158_09_12_19 #125.csv | 9/12/2019 | 3:06:56 PM | #125 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 2346 | | 168 | ND | | ND | |
| Res_543158_09_12_19 #126.csv | 9/12/2019 | 3:16:06 PM | #126 | Soil | 10.55 | | 10.55 | | | | | | | | | | | | | | | | | 2950 | | 205 | 330 | 101 | 166 | 38 |
| Res_543158_09_12_19 #127.csv | 9/12/2019 | 3:16:34 PM | #127 | Soil | 10.63 | | 10.63 | | | | | | | | | | | | | | | | | 1424 | | 163 | ND | | ND | |
| Res_543158_09_12_19 #128.csv | 9/12/2019 | 3:16:58 PM | #128 | Soil | 10.53 | | 10.53 | | | | | | | | | | | | | | | | | 2632 | | 170 | 291 | 85 | ND | |
| Res_543158_09_12_19 #129.csv | 9/12/2019 | 3:20:17 PM | #129 | Soil | 10.27 | | 10.27 | | | | | | | | | | | | | | | | | 2332 | | 162 | ND | | ND | |
| Res_543158_09_12_19 #13.csv | 9/12/2019 | 8:28:36 AM | #13 | Soil | 4.12 | | 4.12 | | | | | | | | | | | | | | | | | ND | | ND | | | ND | |
| Res_543158_09_12_19 #130.csv | 9/12/2019 | 3:20:50 PM | #130 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 2285 | | 155 | 289 | 79 | ND | |
| Res_543158_09_12_19 #131.csv | 9/12/2019 | 3:56:36 PM | #131 | Soil | 9.94 | | 9.94 | | | | | | | | | | | | | | | | | 1976 | | 139 | 291 | 73 | ND | |
| Res_543158_09_12_19 #132.csv | 9/12/2019 | 3:57:07 PM | #132 | Soil | 9.89 | | 9.89 | | | | | | | | | | | | | | | | | 2180 | | 156 | 373 | 82 | 117 | 30 |
| Res_543158_09_12_19 #133.csv | 9/12/2019 | 3:57:33 PM | #133 | Soil | 10.45 | | 10.45 | | | | | | | | | | | | | | | | | 2468 | | 155 | 301 | 78 | ND | |
| Res_543158_09_12_19 #134.csv | 9/12/2019 | 3:57:54 PM | #134 | Soil | 10.11 | | 10.11 | | | | | | | | | | | | | | | | | 2365 | | 188 | 364 | 98 | ND | |
| Res_543158_09_12_19 #135.csv | 9/12/2019 | 3:58:15 PM | #135 | Soil | 10.65 | | 10.65 | | | | | | | | | | | | | | | | | 2019 | | 195 | ND | | ND | |
| Res_543158_09_12_19 #136.csv | 9/12/2019 | 3:58:40 PM | #136 | Soil | 10.17 | | 10.17 | | | | | | | | | | | | | | | | | 1639 | | 208 | ND | | ND | |
| Res_543158_09_12_19 #137.csv | 9/12/2019 | 3:59:05 PM | #137 | Soil | 13.26 | | 13.26 | | | | | | | | | | | | | | | | | 2014 | | 138 | 296 | 72 | 100 | 27 |
| Res_543158_09_12_19 #138.csv | 9/12/2019 | 4:09:19 PM | #138 | Soil | 10.65 | | 10.65 | | | | | | | | | | | | | | | | | 1751 | | 197 | 517 | 114 | ND | |
| Res_543158_09_12_19 #139.csv | 9/12/2019 | 4:09:42 PM | #139 | Soil | 10.07 | | 10.07 | | | | | | | | | | | | | | | | | 1805 | | 168 | 273 | 89 | ND | |
| Res_543158_09_12_19 #140.csv | 9/12/2019 | 4:10:06 PM | #140 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 1763 | | 146 | ND | | ND | |
| Res_543158_09_12_19 #141.csv | 9/12/2019 | 4:10:36 PM | #141 | Soil | 10.07 | | 10.07 | | | | | | | | | | | | | | | | | 1919 | | 161 | ND | | ND | |
| Res_543158_09_12_19 #142.csv | 9/12/2019 | 4:11:03 PM | #142 | Soil | 10.58 | | 10.58 | | | | | | | | | | | | | | | | | 797 | | 132 | ND | | ND | |
| Res_543158_09_12_19 #2.csv | 9/12/2019 | 7:21:20 AM | #2 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #20.csv | 9/12/2019 | 9:51:50 AM | #20 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #21.csv | 9/12/2019 | 9:52:06 AM | #21 | Soil | 10.63 | | 10.63 | | | | | | | | | | | | | | | | | 2301 | | 173 | ND | | ND | |
| Res_543158_09_12_19 #22.csv | 9/12/2019 | 9:52:48 AM | #22 | Soil | 10.63 | | 10.63 | | | | | | | | | | | | | | | | | 3152 | | 192 | 431 | 95 | 116 | 33 |
| Res_543158_09_12_19 #23.csv | 9/12/2019 | 9:53:21 AM | #23 | Soil | 11.17 | | 11.17 | | | | | | | | | | | | | | | | | 2992 | | 176 | 315 | 86 | ND | |
| Res_543158_09_12_19 #24.csv | 9/12/2019 | 9:53:49 AM | #24 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 3072 | | 168 | 355 | 82 | ND | |
| Res_543158_09_12_19 #25.csv | 9/12/2019 | 9:53:54 AM | #25 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #27.csv | 9/12/2019 | 9:54:29 AM | #27 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #28.csv | 9/12/2019 | 9:54:45 AM | #28 | Soil | 10.57 | | 10.57 | | | | | | | | | | | | | | | | | 3099 | | 174 | 373 | 86 | ND | |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #29.csv | 9/12/2019 | 9:55:12 AM | #29 | Soil | 10.48 | | 10.48 | | | | | | | | | | | | | | | | | 3393 | 179 | 361 | 86 | ND | |
| Res_543158_09_12_19 #3.csv | 9/12/2019 | 7:22:35 AM | #3 | Soil | 3.03 | | 3.03 | | | | | | | | | | | | | | | | | ND | | ND | | ND | |
| Res_543158_09_12_19 #30.csv | 9/12/2019 | 9:55:39 AM | #30 | Soil | 10.57 | | 10.57 | | | | | | | | | | | | | | | | | 4022 | 199 | 428 | 94 | ND | |
| Res_543158_09_12_19 #31.csv | 9/12/2019 | 9:56:01 AM | #31 | Soil | 10.07 | | 10.07 | | | | | | | | | | | | | | | | | 2583 | 175 | 378 | 90 | ND | |
| Res_543158_09_12_19 #32.csv | 9/12/2019 | 10:31:57 AM | #32 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 3989 | 230 | 421 | 109 | 294 | 43 |
| Res_543158_09_12_19 #33.csv | 9/12/2019 | 10:32:21 AM | #33 | Soil | 10.09 | | 10.09 | | | | | | | | | | | | | | | | | 1913 | 192 | ND | | ND | |
| Res_543158_09_12_19 #34.csv | 9/12/2019 | 10:32:46 AM | #34 | Soil | 10.05 | | 10.05 | | | | | | | | | | | | | | | | | 1721 | 225 | ND | | ND | |
| Res_543158_09_12_19 #35.csv | 9/12/2019 | 10:33:09 AM | #35 | Soil | 10.64 | | 10.64 | | | | | | | | | | | | | | | | | 2314 | 211 | ND | | ND | |
| Res_543158_09_12_19 #36.csv | 9/12/2019 | 10:33:23 AM | #36 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #37.csv | 9/12/2019 | 10:33:26 AM | #37 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #38.csv | 9/12/2019 | 10:33:42 AM | #38 | Soil | 10.73 | | 10.73 | | | | | | | | | | | | | | | | | 3697 | 228 | 495 | 112 | 145 | 40 |
| Res_543158_09_12_19 #39.csv | 9/12/2019 | 10:34:08 AM | #39 | Soil | 10.08 | | 10.08 | | | | | | | | | | | | | | | | | 2805 | 192 | ND | | ND | |
| Res_543158_09_12_19 #4.csv | 9/12/2019 | 7:22:48 AM | #4 | Soil | 3.01 | | 3.01 | | | | | | | | | | | | | | | | | ND | | ND | | ND | |
| Res_543158_09_12_19 #40.csv | 9/12/2019 | 10:34:31 AM | #40 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 1981 | 168 | 333 | 90 | ND | |
| Res_543158_09_12_19 #41.csv | 9/12/2019 | 10:40:37 AM | #41 | Soil | 10.03 | | 10.03 | | | | | | | | | | | | | | | | | 2254 | 179 | 491 | 97 | 117 | 34 |
| Res_543158_09_12_19 #42.csv | 9/12/2019 | 10:41:01 AM | #42 | Soil | 9.96 | | 9.96 | | | | | | | | | | | | | | | | | 1767 | 160 | 324 | 87 | ND | |
| Res_543158_09_12_19 #43.csv | 9/12/2019 | 10:41:26 AM | #43 | Soil | 10.07 | | 10.07 | | | | | | | | | | | | | | | | | 2001 | 194 | ND | | ND | |
| Res_543158_09_12_19 #44.csv | 9/12/2019 | 10:41:50 AM | #44 | Soil | 11.07 | | 11.07 | | | | | | | | | | | | | | | | | 2637 | 180 | 489 | 95 | ND | |
| Res_543158_09_12_19 #45.csv | 9/12/2019 | 10:42:13 AM | #45 | Soil | 10.65 | | 10.65 | | | | | | | | | | | | | | | | | 1935 | 161 | 265 | 84 | ND | |
| Res_543158_09_12_19 #46.csv | 9/12/2019 | 11:35:30 AM | #46 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #47.csv | 9/12/2019 | 11:35:46 AM | #47 | Soil | 10.09 | | 10.09 | | | | | | | | | | | | | | | | | 1937 | 159 | 261 | 82 | ND | |
| Res_543158_09_12_19 #48.csv | 9/12/2019 | 11:36:28 AM | #48 | Soil | 15.91 | | 15.91 | | | | | | | | | | | | | | | | | 1691 | 128 | 615 | 77 | 100 | 26 |
| Res_543158_09_12_19 #49.csv | 9/12/2019 | 11:36:55 AM | #49 | Soil | 10.09 | | 10.09 | | | | | | | | | | | | | | | | | 1952 | 173 | 342 | 93 | 107 | 34 |
| Res_543158_09_12_19 #50.csv | 9/12/2019 | 11:37:17 AM | #50 | Soil | 10.07 | | 10.07 | | | | | | | | | | | | | | | | | 1390 | 159 | 267 | 89 | 105 | 34 |
| Res_543158_09_12_19 #51.csv | 9/12/2019 | 11:37:48 AM | #51 | Soil | 10.08 | | 10.08 | | | | | | | | | | | | | | | | | 2163 | 173 | ND | | ND | |
| Res_543158_09_12_19 #52.csv | 9/12/2019 | 11:38:21 AM | #52 | Soil | 10.06 | | 10.06 | | | | | | | | | | | | | | | | | 3538 | 215 | ND | | ND | |
| Res_543158_09_12_19 #53.csv | 9/12/2019 | 11:38:24 AM | #53 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #54.csv | 9/12/2019 | 11:38:55 AM | #54 | Soil | 4.06 | | 4.06 | | | | | | | | | | | | | | | | | 2948 | 304 | ND | | ND | |
| Res_543158_09_12_19 #55.csv | 9/12/2019 | 11:39:18 AM | #55 | Soil | 10.62 | | 10.62 | | | | | | | | | | | | | | | | | 5477 | 279 | 519 | 127 | 166 | 45 |
| Res_543158_09_12_19 #56.csv | 9/12/2019 | 11:39:49 AM | #56 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 2177 | 154 | 394 | 82 | ND | |
| Res_543158_09_12_19 #57.csv | 9/12/2019 | 11:49:50 AM | #57 | Soil | 10.1 | | 10.1 | | | | | | | | | | | | | | | | | 2962 | 190 | 387 | 95 | ND | |
| Res_543158_09_12_19 #58.csv | 9/12/2019 | 11:50:16 AM | #58 | Soil | 9.5 | | 9.5 | | | | | | | | | | | | | | | | | 3816 | 237 | 486 | 115 | ND | |
| Res_543158_09_12_19 #59.csv | 9/12/2019 | 11:50:36 AM | #59 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #6.csv | 9/12/2019 | 8:21:58 AM | #6 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #61.csv | 9/12/2019 | 11:50:56 AM | #61 | Soil | 10.03 | | 10.03 | | | | | | | | | | | | | | | | | 3137 | 192 | 353 | 94 | 120 | 34 |
| Res_543158_09_12_19 #62.csv | 9/12/2019 | 11:51:19 AM | #62 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 3010 | 207 | 526 | 107 | ND | |
| Res_543158_09_12_19 #63.csv | 9/12/2019 | 11:51:30 AM | #63 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #64.csv | 9/12/2019 | 11:51:46 AM | #64 | Soil | 9.56 | | 9.56 | | | | | | | | | | | | | | | | | 2145 | 194 | ND | | ND | |
| Res_543158_09_12_19 #65.csv | 9/12/2019 | 12:18:35 PM | #65 | Soil | 9.98 | | 9.98 | | | | | | | | | | | | | | | | | 2411 | 169 | 319 | 86 | 128 | 32 |
| Res_543158_09_12_19 #66.csv | 9/12/2019 | 12:19:10 PM | #66 | Soil | 10.06 | | 10.06 | | | | | | | | | | | | | | | | | 2487 | 172 | ND | | ND | |
| Res_543158_09_12_19 #67.csv | 9/12/2019 | 12:19:34 PM | #67 | Soil | 10.58 | | 10.58 | | | | | | | | | | | | | | | | | 2478 | 179 | ND | | 134 | 34 |
| Res_543158_09_12_19 #68.csv | 9/12/2019 | 12:19:56 PM | #68 | Soil | 9.97 | | 9.97 | | | | | | | | | | | | | | | | | 3593 | 205 | 433 | 99 | ND | |
| Res_543158_09_12_19 #69.csv | 9/12/2019 | 12:20:20 PM | #69 | Soil | 10.6 | | 10.6 | | | | | | | | | | | | | | | | | 1656 | 147 | 354 | 82 | ND | |
| Res_543158_09_12_19 #7.csv | 9/12/2019 | 8:22:12 AM | #7 | Soil | 4.62 | | 4.62 | | | | | | | | | | | | | | | | | ND | | 4569 | 981 | ND | |
| Res_543158_09_12_19 #70.csv | 9/12/2019 | 12:20:38 PM | #70 | Soil | 4.15 | | 4.15 | | | | | | | | | | | | | | | | | 1971 | 282 | 545 | 161 | ND | |
| Res_543158_09_12_19 #71.csv | 9/12/2019 | 12:20:51 PM | #71 | Soil | 10.08 | | 10.08 | | | | | | | | | | | | | | | | | 2408 | 191 | 535 | 105 | ND | |
| Res_543158_09_12_19 #72.csv | 9/12/2019 | 12:21:13 PM | #72 | Soil | 9.97 | | 9.97 | | | | | | | | | | | | | | | | | 4397 | 247 | 478 | 118 | ND | |
| Res_543158_09_12_19 #73.csv | 9/12/2019 | 12:27:38 PM | #73 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 3783 | 211 | 476 | 103 | ND | |
| Res_543158_09_12_19 #74.csv | 9/12/2019 | 12:28:02 PM | #74 | Soil | 10.03 | | 10.03 | | | | | | | | | | | | | | | | | 3830 | 237 | 358 | 112 | ND | |
| Res_543158_09_12_19 #75.csv | 9/12/2019 | 12:28:23 PM | #75 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 2802 | 203 | 545 | 107 | ND | |
| Res_543158_09_12_19 #76.csv | 9/12/2019 | 12:28:45 PM | #76 | Soil | 10.69 | | 10.69 | | | | | | | | | | | | | | | | | 3457 | 205 | 463 | 101 | 109 | 35 |
| Res_543158_09_12_19 #77.csv | 9/12/2019 | 12:29:04 PM | #77 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 3658 | 213 | 633 | 109 | ND | |
| Res_543158_09_12_19 #78.csv | 9/12/2019 | 12:59:23 PM | #78 | Soil | 9.95 | | 9.95 | | | | | | | | | | | | | | | | | 592 | 101 | ND | | ND | |
| Res_543158_09_12_19 #79.csv | 9/12/2019 | 1:00:03 PM | #79 | Soil | 10.01 | | 10.01 | | | | | | | | | | | | | | | | | 1831 | 156 | ND | | 106 | 31 |
| Res_543158_09_12_19 #8.csv | 9/12/2019 | 8:24:01 AM | #8 | Soil | 3.53 | | 3.53 | | | | | | | | | | | | | | | | | ND | | 6633 | 624 | ND | |
| Res_543158_09_12_19 #80.csv | 9/12/2019 | 1:00:32 PM | #80 | Soil | 9.95 | | 9.95 | | | | | | | | | | | | | | | | | 2071 | 155 | 285 | 80 | ND | |
| Res_543158_09_12_19 #82.csv | 9/12/2019 | 1:01:04 PM | #82 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 2247 | 204 | 366 | 107 | 144 | 40 |
| Res_543158_09_12_19 #83.csv | 9/12/2019 | 1:01:24 PM | #83 | Soil | 10.22 | | 10.22 | | | | | | | | | | | | | | | | | 2807 | 208 | 542 | 111 | ND | |
| Res_543158_09_12_19 #84.csv | 9/12/2019 | 1:01:41 PM | #84 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #85.csv | 9/12/2019 | 1:01:58 PM | #85 | Soil | 10.08 | | 10.08 | | | | | | | | | | | | | | | | | 2053 | 161 | 432 | 88 | ND | |
| Res_543158_09_12_19 #86.csv | 9/12/2019 | 1:02:22 PM | #86 | Soil | 9.57 | | 9.57 | | | | | | | | | | | | | | | | | 2326 | 177 | 275 | 90 | ND | |
| Res_543158_09_12_19 #87.csv | 9/12/2019 | 1:06:51 PM | #87 | Soil | 9.95 | | 9.95 | | | | | | | | | | | | | | | | | 2393 | 182 | 346 | 94 | ND | |
| Res_543158_09_12_19 #89.csv | 9/12/2019 | 1:07:08 PM | #89 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #9.csv | 9/12/2019 | 8:25:01 AM | #9 | Soil | 3.54 | | 3.54 | | | | | | | | | | | | | | | | | ND | | ND | | ND | |
| Res_543158_09_12_19 #90.csv | 9/12/2019 | 1:07:23 PM | #90 | Soil | 10.66 | | 10.66 | | | | | | | | | | | | | | | | | 2456 | 214 | ND | | ND | |
| Res_543158_09_12_19 #91.csv | 9/12/2019 | 1:07:51 PM | #91 | Soil | 10.02 | | 10.02 | | | | | | | | | | | | | | | | | 1120 | 149 | ND | | ND | |
| Res_543158_09_12_19 #92.csv | 9/12/2019 | 1:08:16 PM | #92 | Soil | 10.02 | | 10.02 | | | | | | | | | | | | | | | | | 1417 | 150 | ND | | 92 | 30 |
| Res_543158_09_12_19 #93.csv | 9/12/2019 | 1:08:39 PM | #93 | Soil | 10.01 | | 10.01 | | | | | | | | | | | | | | | | | 1911 | 171 | ND | | ND | |
| Res_543158_09_12_19 #94.csv | 9/12/2019 | 1:52:38 PM | #94 | Soil | 10.57 | | 10.57 | | | | | | | | | | | | | | | | | 1637 | 152 | ND | | ND | |
| Res_543158_09_12_19 #95.csv | 9/12/2019 | 1:53:10 PM | #95 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #96.csv | 9/12/2019 | 1:53:14 PM | #96 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #97.csv | 9/12/2019 | 1:53:17 PM | #97 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #98.csv | 9/12/2019 | 1:53:22 PM | #98 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #99.csv | 9/12/2019 | 1:53:26 PM | #99 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #1.csv | 9/13/2019 | 8:54:57 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #10.csv | 9/13/2019 | 9:37:21 AM | #10 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 4185 | 245 | 533 | 118 | 133 | 41 |
| Res_543158_09_13_19 #11.csv | 9/13/2019 | 9:43:28 AM | #11 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #12.csv | 9/13/2019 | 9:43:46 AM | #12 | Soil | 10.65 | | 10.65 | | | | | | | | | | | | | | | | | 3160 | 209 | 536 | 108 | ND | |
| Res_543158_09_13_19 #13.csv | 9/13/2019 | 9:44:18 AM | #13 | Soil | 10.57 | | 10.57 | | | | | | | | | | | | | | | | | 3182 | 207 | 400 | 102 | 134 | 37 |
| Res_543158_09_13_19 #14.csv | 9/13/2019 | 9:44:41 AM | #14 | Soil | 10.47 | | 10.47 | | | | | | | | | | | | | | | | | 4002 | 242 | 646 | 121 | ND | |
| Res_543158_09_13_19 #15.csv | 9/13/2019 | 9:45:01 AM | #15 | Soil | 10.62 | | 10.62 | | | | | | | | | | | | | | | | | 3102 | 202 | 328 | 99 | ND | |
| Res_543158_09_13_19 #16.csv | 9/13/2019 | 9:45:21 AM | #16 | Soil | 10.15 | | 10.15 | | | | | | | | | | | | | | | | | 5122 | 259 | 448 | 117 | 173 | 41 |
| Res_543158_09_13_19 #17.csv | 9/13/2019 | 10:20:40 AM | #17 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #18.csv | 9/13/2019 | 10:20:55 AM | #18 | Soil | 10.68 | | 10.68 | | | | | | | | | | | | | | | | | 2361 | 165 | ND | | ND | |
| Res_543158_09_13_19 #19.csv | 9/13/2019 | 10:21:42 AM | #19 | Soil | 9.98 | | 9.98 | | | | | | | | | | | | | | | | | 1715 | 160 | ND | | ND | |
| Res_543158_09_13_19 #2.csv | 9/13/2019 | 9:34:12 AM | #2 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #20.csv | 9/13/2019 | 10:22:09 AM | #20 | Soil | 10.5 | | 10.5 | | | | | | | | | | | | | | | | | 1870 | 145 | 374 | 79 | ND | |
| Res_543158_09_13_19 #21.csv | 9/13/2019 | 10:22:23 AM | #21 | Soil | 10.09 | | 10.09 | | | | | | | | | | | | | | | | | 976 | 135 | ND | | ND | |
| Res_543158_09_13_19 #22.csv | 9/13/2019 | 10:22:48 AM | #22 | Soil | 10.54 | | 10.54 | | | | | | | | | | | | | | | | | 1073 | 132 | ND | | ND | |
| Res_543158_09_13_19 #23.csv | 9/13/2019 | 10:23:14 AM | #23 | Soil | 10.59 | | 10.59 | | | | | | | | | | | | | | | | | 666 | 148 | ND | | ND | |
| Res_543158_09_13_19 #24.csv | 9/13/2019 | 10:23:39 AM | #24 | Soil | 10.11 | | 10.11 | | | | | | | | | | | | | | | | | 2330 | 187 | 310 | 95 | 105 | 34 |
| Res_543158_09_13_19 #25.csv | 9/13/2019 | 10:24:02 AM | #25 | Soil | 10.64 | | 10.64 | | | | | | | | | | | | | | | | | 2926 | 203 | ND | | ND | |
| Res_543158_09_13_19 #26.csv | 9/13/2019 | 10:35:02 AM | #26 | Soil | 10 | | 10 | | | | | | | | | | | | | | | | | 1698 | 154 | 328 | 85 | ND | |
| Res_543158_09_13_19 #27.csv | 9/13/2019 | 10:35:28 AM | #27 | Soil | 10.6 | | 10.6 | | | | | | | | | | | | | | | | | 2976 | 214 | 588 | 112 | ND | |
| Res_543158_09_13_19 #28.csv | 9/13/2019 | 10:35:47 AM | #28 | Soil | 10.18 | | 10.18 | | | | | | | | | | | | | | | | | 3958 | 231 | 672 | 116 | 155 | 40 |
| Res_543158_09_13_19 #29.csv | 9/13/2019 | 10:36:07 AM | #29 | Soil | 10.03 | | 10.03 | | | | | | | | | | | | | | | | | 3391 | 236 | 383 | 115 | ND | |
| Res_543158_09_13_19 #3.csv | 9/13/2019 | 9:34:37 AM | #3 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #30.csv | 9/13/2019 | 10:36:26 AM | #30 | Soil | 10.62 | | 10.62 | | | | | | | | | | | | | | | | | 5531 | 246 | 510 | 111 | 193 | 39 |
| Res_543158_09_13_19 #31.csv | 9/13/2019 | 11:27:15 AM | #31 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #32.csv | 9/13/2019 | 11:27:29 AM | #32 | Soil | 10.03 | | 10.03 | | | | | | | | | | | | | | | | | 1491 | 150 | 367 | 86 | ND | |
| Res_543158_09_13_19 #33.csv | 9/13/2019 | 11:27:57 AM | #33 | Soil | 10 | | 10 | | | | | | | | | | | | | | | | | 2770 | 198 | 319 | 98 | ND | |
| Res_543158_09_13_19 #34.csv | 9/13/2019 | 11:28:17 AM | #34 | Soil | 10.14 | | 10.14 | | | | | | | | | | | | | | | | | 1672 | 166 | ND | | ND | |
| Res_543158_09_13_19 #35.csv | 9/13/2019 | 11:28:36 AM | #35 | Soil | 10.65 | | 10.65 | | | | | | | | | | | | | | | | | 1450 | 145 | ND | | ND | |
| Res_543158_09_13_19 #36.csv | 9/13/2019 | 11:28:58 AM | #36 | Soil | 10.02 | | 10.02 | | | | | | | | | | | | | | | | | 2303 | 191 | ND | | ND | |
| Res_543158_09_13_19 #37.csv | 9/13/2019 | 11:29:19 AM | #37 | Soil | 10.55 | | 10.55 | | | | | | | | | | | | | | | | | 2803 | 190 | 364 | 95 | ND | |
| Res_543158_09_13_19 #38.csv | 9/13/2019 | 11:29:39 AM | #38 | Soil | 10.06 | | 10.06 | | | | | | | | | | | | | | | | | 2748 | 195 | 417 | 100 | ND | |
| Res_543158_09_13_19 #39.csv | 9/13/2019 | 11:37:32 AM | #39 | Soil | 10.54 | | 10.54 | | | | | | | | | | | | | | | | | 4356 | 257 | 465 | 120 | 140 | 42 |
| Res_543158_09_13_19 #4.csv | 9/13/2019 | 9:34:57 AM | #4 | Soil | 8.96 | | 8.96 | | | | | | | | | | | | | | | | | 2195 | 219 | ND | | ND | |
| Res_543158_09_13_19 #40.csv | 9/13/2019 | 11:37:54 AM | #40 | Soil | 10.56 | | 10.56 | | | | | | | | | | | | | | | | | 3118 | 201 | 431 | 100 | 153 | 37 |
| Res_543158_09_13_19 #41.csv | 9/13/2019 | 12:20:13 PM | #41 | Soil | 10.51 | | 10.51 | | | | | | | | | | | | | | | | | 1838 | 156 | 263 | 82 | ND | |
| Res_543158_09_13_19 #42.csv | 9/13/2019 | 12:20:35 PM | #42 | Soil | 10.55 | | 10.55 | | | | | | | | | | | | | | | | | 1884 | 162 | ND | | 108 | 32 |
| Res_543158_09_13_19 #43.csv | 9/13/2019 | 12:20:55 PM | #43 | Soil | 9.98 | | 9.98 | | | | | | | | | | | | | | | | | 1871 | 164 | 312 | 87 | ND | |
| Res_543158_09_13_19 #44.csv | 9/13/2019 | 12:21:19 PM | #44 | Soil | 10.06 | | 10.06 | | | | | | | | | | | | | | | | | 2402 | 168 | 266 | 85 | ND | |
| Res_543158_09_13_19 #45.csv | 9/13/2019 | 12:21:52 PM | #45 | Soil | 10.12 | | 10.12 | | | | | | | | | | | | | | | | | 1756 | 148 | ND | | ND | |
| Res_543158_09_13_19 #46.csv | 9/13/2019 | 12:22:21 PM | #46 | Soil | 10.08 | | 10.08 | | | | | | | | | | | | | | | | | 2458 | 173 | 311 | 87 | ND | |
| Res_543158_09_13_19 #47.csv | 9/13/2019 | 12:22:42 PM | #47 | Soil | 10.52 | | 10.52 | | | | | | | | | | | | | | | | | 2134 | 159 | ND | | ND | |
| Res_543158_09_13_19 #48.csv | 9/13/2019 | 12:29:49 PM | #48 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #49.csv | 9/13/2019 | 12:30:03 PM | #49 | Soil | 10.19 | | 10.19 | | | | | | | | | | | | | | | | | 2436 | 179 | 407 | 92 | ND | |
| Res_543158_09_13_19 #5.csv | 9/13/2019 | 9:35:28 AM | #5 | Soil | 10.52 | | 10.52 | | | | | | | | | | | | | | | | | 1931 | 157 | ND | | 93 | 30 |
| Res_543158_09_13_19 #50.csv | 9/13/2019 | 12:30:26 PM | #50 | Soil | 9.57 | | 9.57 | | | | | | | | | | | | | | | | | 1020 | 158 | ND | | ND | |
| Res_543158_09_13_19 #51.csv | 9/13/2019 | 12:30:58 PM | #51 | Soil | 10.12 | | 10.12 | | | | | | | | | | | | | | | | | 3247 | 189 | 409 | 93 | ND | |
| Res_543158_09_13_19 #52.csv | 9/13/2019 | 12:31:22 PM | #52 | Soil | 11.07 | | 11.07 | | | | | | | | | | | | | | | | | 1174 | 133 | ND | | ND | |
| Res_543158_09_13_19 #53.csv | 9/13/2019 | 12:31:49 PM | #53 | Soil | 10.03 | | 10.03 | | | | | | | | | | | | | | | | | 967 | 129 | ND | | ND | |
| Res_543158_09_13_19 #6.csv | 9/13/2019 | 9:35:49 AM | #6 | Soil | 10.04 | | 10.04 | | | | | | | | | | | | | | | | | 2547 | 191 | ND | | ND | |
| Res_543158_09_13_19 #7.csv | 9/13/2019 | 9:36:08 AM | #7 | Soil | 10.52 | | 10.52 | | | | | | | | | | | | | | | | | 2596 | 169 | 300 | 84 | ND | |
| Res_543158_09_13_19 #8.csv | 9/13/2019 | 9:36:32 AM | #8 | Soil | 10.55 | | 10.55 | | | | | | | | | | | | | | | | | 3109 | 201 | ND | | ND | |
| Res_543158_09_13_19 #9.csv | 9/13/2019 | 9:36:59 AM | #9 | Soil | 10.55 | | 10.55 | | | | | | | | | | | | | | | | | 2973 | 194 | 351 | 96 | ND | |
| Res_543158_09_17_19 #1.csv | 9/17/2019 | 1:24:02 PM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #1.csv | 9/18/2019 | 11:56:18 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #2.csv | 9/18/2019 | 11:58:20 AM | #2 | Soil | 32.31 | | 32.31 | | | | | | | | | | | | | | | | | 675 | 61 | ND | | ND | |
| Res_543158_09_18_19 #3.csv | 9/18/2019 | 12:01:28 PM | #3 | Soil | 15.63 | | 15.63 | | | | | | | | | | | | | | | | | ND | 7958 | 1209 | 1323356 | 32970 | |
| Res_543158_09_18_19 #4.csv | 9/18/2019 | 12:02:09 PM | #4 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #5.csv | 9/18/2019 | 12:04:25 PM | #5 | Soil | 39.36 | 39.74 | 79.1 | ND | | ND | | ND | | 3556 | | 54 | 2259 | 37 | 738 | 12 | 27.4 | 1.5 | 20 | 2 | | | | | |
| Res_543158_09_25_19 #1.csv | 9/25/2019 | 8:52:36 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #10.csv | 9/25/2019 | 10:09:30 AM | #10 | Soil | 15.14 | | 15.14 | | | | | | | | | | | | | | | | | 2462 | 154 | 291 | 77 | ND | |
| Res_543158_09_25_19 #11.csv | 9/25/2019 | 10:09:40 AM | #11 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #12.csv | 9/25/2019 | 10:10:02 AM | #12 | Soil | 12.74 | | 12.74 | | | | | | | | | | | | | | | | | 3005 | 174 | 333 | 85 | ND | |
| Res_543158_09_25_19 #14.csv | 9/25/2019 | 10:10:32 AM | #14 | Soil | 10.5 | | 10.5 | | | | | | | | | | | | | | | | | 1044 | 107 | ND | | ND | |
| Res_543158_09_25_19 #15.csv | 9/25/2019 | 10:10:51 AM | #15 | Soil | 6.87 | | 6.87 | | | | | | | | | | | | | | | | | 1510 | 334 | ND | | ND | |
| Res_543158_09_25_19 #16.csv | 9/25/2019 | 11:18:08 AM | #16 | Soil | 30.14 | | 30.14 | | | | | | | | | | | | | | | | | 2339 | 90 | 438 | 47 | 96 | 16 |
| Res_543158_09_25_19 #17.csv | 9/25/2019 | 11:19:49 AM | #17 | Soil | 30.37 | | 30.37 | | | | | | | | | | | | | | | | | 2719 | 102 | 309 | 50 | ND | |
| Res_543158_09_25_19 #18.csv | 9/25/2019 | 11:20:55 AM | #18 | Soil | 29.26 | | 29.26 | | | | | | | | | | | | | | | | | 2424 | 94 | 335 | 48 | 50 | 16 |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_25_19 #19.csv | 9/25/2019 | 11:22:49 AM | #19 | Soil | 16.48 | | 16.48 | | | | | | | | | | | | | | | | | 2660 | 134 | ND | | ND | |
| Res_543158_09_25_19 #2.csv | 9/25/2019 | 8:55:56 AM | #2 | Soil | 30.1 | | 30.1 | | | | | | | | | | | | | | | | | 2190 | 89 | 267 | 45 | ND | |
| Res_543158_09_25_19 #20.csv | 9/25/2019 | 1:26:30 PM | #20 | Soil | 14.41 | | 14.41 | | | | | | | | | | | | | | | | | 482 | 96 | ND | | ND | |
| Res_543158_09_25_19 #21.csv | 9/25/2019 | 1:29:13 PM | #21 | Soil | 10.63 | | 10.63 | | | | | | | | | | | | | | | | | 2051 | 179 | ND | | ND | |
| Res_543158_09_25_19 #22.csv | 9/25/2019 | 1:30:59 PM | #22 | Soil | 14.87 | | 14.87 | | | | | | | | | | | | | | | | | 891 | 103 | ND | | ND | |
| Res_543158_09_25_19 #23.csv | 9/25/2019 | 1:31:23 PM | #23 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #24.csv | 9/25/2019 | 1:31:48 PM | #24 | Soil | 16.57 | | 16.57 | | | | | | | | | | | | | | | | | 2301 | 133 | ND | | ND | |
| Res_543158_09_25_19 #25.csv | 9/25/2019 | 1:32:27 PM | #25 | Soil | 19.26 | | 19.26 | | | | | | | | | | | | | | | | | 1443 | 119 | ND | | ND | |
| Res_543158_09_25_19 #26.csv | 9/25/2019 | 1:34:05 PM | #26 | Soil | 13.86 | | 13.86 | | | | | | | | | | | | | | | | | 1050 | 124 | ND | | ND | |
| Res_543158_09_25_19 #27.csv | 9/25/2019 | 1:41:59 PM | #27 | Soil | 3.47 | | 3.47 | | | | | | | | | | | | | | | | | 2935 | 253 | ND | | ND | |
| Res_543158_09_25_19 #28.csv | 9/25/2019 | 1:42:19 PM | #28 | Soil | 16.42 | | 16.42 | | | | | | | | | | | | | | | | | 2192 | 110 | 377 | 58 | 72 | 20 |
| Res_543158_09_25_19 #29.csv | 9/25/2019 | 1:43:55 PM | #29 | Soil | 14.92 | | 14.92 | | | | | | | | | | | | | | | | | 2051 | 140 | ND | | ND | |
| Res_543158_09_25_19 #3.csv | 9/25/2019 | 8:57:41 AM | #3 | Soil | 30.25 | | 30.25 | | | | | | | | | | | | | | | | | 2314 | 91 | 145 | 44 | ND | |
| Res_543158_09_25_19 #30.csv | 9/25/2019 | 1:44:16 PM | #30 | Soil | 8.41 | | 8.41 | | | | | | | | | | | | | | | | | 2033 | 188 | 490 | 104 | ND | |
| Res_543158_09_25_19 #31.csv | 9/25/2019 | 1:44:45 PM | #31 | Soil | 8.99 | | 8.99 | | | | | | | | | | | | | | | | | 1822 | 173 | ND | | ND | |
| Res_543158_09_25_19 #32.csv | 9/25/2019 | 1:48:46 PM | #32 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #33.csv | 9/25/2019 | 2:29:38 PM | #33 | Soil | 9.92 | | 9.92 | | | | | | | | | | | | | | | | | 1761 | 130 | 348 | 70 | ND | |
| Res_543158_09_25_19 #34.csv | 9/25/2019 | 2:30:10 PM | #34 | Soil | 7.94 | | 7.94 | | | | | | | | | | | | | | | | | 507 | 141 | 424 | 98 | ND | |
| Res_543158_09_25_19 #35.csv | 9/25/2019 | 2:31:27 PM | #35 | Soil | 8.94 | | 8.94 | | | | | | | | | | | | | | | | | 1494 | 139 | ND | | ND | |
| Res_543158_09_25_19 #36.csv | 9/25/2019 | 2:31:44 PM | #36 | Soil | 5.79 | | 5.79 | | | | | | | | | | | | | | | | | 3887 | 362 | ND | | ND | |
| Res_543158_09_25_19 #37.csv | 9/25/2019 | 2:32:58 PM | #37 | Soil | 12.31 | | 12.31 | | | | | | | | | | | | | | | | | 1613 | 191 | ND | | ND | |
| Res_543158_09_25_19 #38.csv | 9/25/2019 | 2:33:29 PM | #38 | Soil | 10.62 | | 10.62 | | | | | | | | | | | | | | | | | 3305 | 260 | ND | | ND | |
| Res_543158_09_25_19 #39.csv | 9/25/2019 | 2:34:05 PM | #39 | Soil | 6.8 | | 6.8 | | | | | | | | | | | | | | | | | 1144 | 187 | ND | | ND | |
| Res_543158_09_25_19 #4.csv | 9/25/2019 | 8:59:48 AM | #4 | Soil | 30.35 | | 30.35 | | | | | | | | | | | | | | | | | 3050 | 107 | 389 | 53 | 63 | 17 |
| Res_543158_09_25_19 #40.csv | 9/25/2019 | 2:34:23 PM | #40 | Soil | 6.32 | | 6.32 | | | | | | | | | | | | | | | | | 2551 | 298 | ND | | ND | |
| Res_543158_09_25_19 #41.csv | 9/25/2019 | 2:34:39 PM | #41 | Soil | 9.17 | | 9.17 | | | | | | | | | | | | | | | | | 1735 | 213 | ND | | ND | |
| Res_543158_09_25_19 #42.csv | 9/25/2019 | 2:35:01 PM | #42 | Soil | 13.73 | | 13.73 | | | | | | | | | | | | | | | | | 1988 | 155 | ND | | ND | |
| Res_543158_09_25_19 #43.csv | 9/25/2019 | 2:36:27 PM | #43 | Soil | 14.9 | | 14.9 | | | | | | | | | | | | | | | | | 1569 | 133 | ND | | ND | |
| Res_543158_09_25_19 #44.csv | 9/25/2019 | 2:37:13 PM | #44 | Soil | 13.28 | | 13.28 | | | | | | | | | | | | | | | | | 819 | 101 | ND | | ND | |
| Res_543158_09_25_19 #45.csv | 9/25/2019 | 2:37:39 PM | #45 | Soil | 10.6 | | 10.6 | | | | | | | | | | | | | | | | | 2086 | 151 | 330 | 79 | ND | |
| Res_543158_09_25_19 #5.csv | 9/25/2019 | 9:20:11 AM | #5 | Soil | 30.11 | | 30.11 | | | | | | | | | | | | | | | | | 1454 | 78 | ND | | ND | |
| Res_543158_09_25_19 #6.csv | 9/25/2019 | 9:20:26 AM | #6 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #7.csv | 9/25/2019 | 9:20:56 AM | #7 | Soil | 17.7 | | 17.7 | | | | | | | | | | | | | | | | | 2477 | 136 | 321 | 69 | ND | |
| Res_543158_09_25_19 #8.csv | 9/25/2019 | 9:21:28 AM | #8 | Soil | 23.4 | | 23.4 | | | | | | | | | | | | | | | | | 2095 | 107 | ND | | ND | |
| Res_543158_09_25_19 #9.csv | 9/25/2019 | 9:22:13 AM | #9 | Soil | 15.47 | | 15.47 | | | | | | | | | | | | | | | | | 1607 | 137 | ND | | ND | |
| Res_543158_10_01_19 #10.csv | 10/1/2019 | 12:27:38 PM | #10 | Soil | 29.71 | | 29.71 | | | | | | | | | | | | | | | | | 1819 | 90 | 231 | 46 | ND | |
| Res_543158_10_01_19 #11.csv | 10/1/2019 | 12:28:21 PM | #11 | Soil | 29.68 | | 29.68 | | | | | | | | | | | | | | | | | 1494 | 86 | 239 | 45 | 72 | 17 |
| Res_543158_10_01_19 #12.csv | 10/1/2019 | 2:23:53 PM | #12 | Soil | 30.29 | | 30.29 | | | | | | | | | | | | | | | | | 644 | 68 | ND | | ND | |
| Res_543158_10_01_19 #13.csv | 10/1/2019 | 2:24:04 PM | #13 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #15.csv | 10/1/2019 | 2:24:43 PM | #15 | Soil | 29.93 | | 29.93 | | | | | | | | | | | | | | | | | 638 | 69 | ND | | ND | |
| Res_543158_10_01_19 #16.csv | 10/1/2019 | 2:25:25 PM | #16 | Soil | | | | | | | | | | | | | | | | | | | | 397 | 75 | ND | | ND | |
| Res_543158_10_01_19 #17.csv | 10/1/2019 | 2:26:15 PM | #17 | Soil | 29.49 | | 29.49 | | | | | | | | | | | | | | | | | 2030 | 117 | ND | | ND | |
| Res_543158_10_01_19 #18.csv | 10/1/2019 | 2:26:51 PM | #18 | Soil | 29.46 | | 29.46 | | | | | | | | | | | | | | | | | ND | | ND | | ND | |
| Res_543158_10_01_19 #19.csv | 10/1/2019 | 2:27:33 PM | #19 | Soil | 29.83 | | 29.83 | | | | | | | | | | | | | | | | | 473 | 68 | ND | | ND | |
| Res_543158_10_01_19 #20.csv | 10/1/2019 | 3:00:12 PM | #20 | Soil | 33.32 | | 33.32 | | | | | | | | | | | | | | | | | 1245 | 66 | ND | | ND | |
| Res_543158_10_01_19 #21.csv | 10/1/2019 | 3:01:24 PM | #21 | Soil | 29.83 | | 29.83 | | | | | | | | | | | | | | | | | 1737 | 86 | 143 | 44 | ND | |
| Res_543158_10_01_19 #22.csv | 10/1/2019 | 4:10:30 PM | #22 | Soil | 29.96 | | 29.96 | | | | | | | | | | | | | | | | | 1499 | 80 | ND | | ND | |
| Res_543158_10_01_19 #23.csv | 10/1/2019 | 4:11:16 PM | #23 | Soil | 29.79 | | 29.79 | | | | | | | | | | | | | | | | | 1240 | 69 | 137 | 37 | ND | |
| Res_543158_10_01_19 #24.csv | 10/1/2019 | 4:11:28 PM | #24 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #25.csv | 10/1/2019 | 4:12:09 PM | #25 | Soil | 30.3 | | 30.3 | | | | | | | | | | | | | | | | | 2095 | 87 | ND | | ND | |
| Res_543158_10_01_19 #26.csv | 10/1/2019 | 4:12:53 PM | #26 | Soil | 31.37 | | 31.37 | | | | | | | | | | | | | | | | | 1886 | 82 | 172 | 41 | ND | |
| Res_543158_10_01_19 #27.csv | 10/1/2019 | 4:14:46 PM | #27 | Soil | 30.33 | | 30.33 | | | | | | | | | | | | | | | | | 706 | 82 | ND | | ND | |
| Res_543158_10_01_19 #28.csv | 10/1/2019 | 4:16:36 PM | #28 | Soil | 29.94 | | 29.94 | | | | | | | | | | | | | | | | | 605 | 66 | 117 | 39 | ND | |
| Res_543158_10_01_19 #29.csv | 10/1/2019 | 4:17:18 PM | #29 | Soil | 30.01 | | 30.01 | | | | | | | | | | | | | | | | | 950 | 82 | ND | | ND | |
| Res_543158_10_01_19 #30.csv | 10/1/2019 | 4:18:24 PM | #30 | Soil | 30 | | 30 | | | | | | | | | | | | | | | | | 728 | 100 | ND | | ND | |
| Res_543158_10_01_19 #4.csv | 10/1/2019 | 11:55:30 AM | #4 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #7.csv | 10/1/2019 | 12:24:37 PM | #7 | Soil | 30.13 | | 30.13 | | | | | | | | | | | | | | | | | 1698 | 74 | 185 | 38 | ND | |
| Res_543158_10_01_19 #8.csv | 10/1/2019 | 12:25:27 PM | #8 | Soil | 29.78 | | 29.78 | | | | | | | | | | | | | | | | | 2746 | 112 | 289 | 55 | ND | |
| Res_543158_10_01_19 #9.csv | 10/1/2019 | 12:26:57 PM | #9 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 1719 | 87 | ND | | ND | |
| Res_543158_10_02_19 #1.csv | 10/2/2019 | 7:52:35 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #10.csv | 10/2/2019 | 10:58:56 AM | #10 | Soil | 29.88 | | 29.88 | | | | | | | | | | | | | | | | | 751 | 67 | 149 | 39 | 60 | 15 |
| Res_543158_10_02_19 #11.csv | 10/2/2019 | 10:59:37 AM | #11 | Soil | 30.01 | | 30.01 | | | | | | | | | | | | | | | | | 816 | 69 | ND | | ND | |
| Res_543158_10_02_19 #12.csv | 10/2/2019 | 11:00:26 AM | #12 | Soil | 30.5 | | 30.5 | | | | | | | | | | | | | | | | | 780 | 69 | ND | | ND | |
| Res_543158_10_02_19 #13.csv | 10/2/2019 | 11:03:57 AM | #13 | Soil | 29.94 | | 29.94 | | | | | | | | | | | | | | | | | 977 | 174 | 361 | 95 | ND | |
| Res_543158_10_02_19 #14.csv | 10/2/2019 | 11:05:19 AM | #14 | Soil | 29.9 | | 29.9 | | | | | | | | | | | | | | | | | 1551 | 85 | 174 | 44 | ND | |
| Res_543158_10_02_19 #15.csv | 10/2/2019 | 2:18:44 PM | #15 | Soil | 29.63 | | 29.63 | | | | | | | | | | | | | | | | | 1251 | 84 | ND | | ND | |
| Res_543158_10_02_19 #16.csv | 10/2/2019 | 2:19:37 PM | #16 | Soil | 29.81 | | 29.81 | | | | | | | | | | | | | | | | | 1443 | 81 | 194 | 43 | ND | |
| Res_543158_10_02_19 #17.csv | 10/2/2019 | 2:20:17 PM | #17 | Soil | 29.54 | | 29.54 | | | | | | | | | | | | | | | | | 641 | 68 | ND | | ND | |
| Res_543158_10_02_19 #18.csv | 10/2/2019 | 2:20:31 PM | #18 | Soil | 5.83 | | 5.83 | | | | | | | | | | | | | | | | | 851 | 143 | ND | | ND | |
| Res_543158_10_02_19 #19.csv | 10/2/2019 | 2:29:05 PM | #19 | Soil | 30.49 | | 30.49 | | | | | | | | | | | | | | | | | 809 | 78 | 151 | 45 | ND | |
| Res_543158_10_02_19 #2.csv | 10/2/2019 | 9:28:04 AM | #2 | Soil | 29.53 | | 29.53 | | | | | | | | | | | | | | | | | 1302 | 72 | 294 | 41 | 65 | 14 |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_02_19 #20.csv | 10/2/2019 | 2:30:34 PM | #20 | Soil | | | | | | | | | | | | | | | | | | | | 837 | 245 | ND | | ND | |
| Res_543158_10_02_19 #21.csv | 10/2/2019 | 2:30:59 PM | #21 | Soil | 10.13 | | 10.13 | | | | | | | | | | | | | | | | | 1278 | 197 | ND | | ND | |
| Res_543158_10_02_19 #22.csv | 10/2/2019 | 2:34:54 PM | #22 | Soil | 29.99 | | 29.99 | | | | | | | | | | | | | | | | | 1585 | 95 | 198 | 50 | ND | |
| Res_543158_10_02_19 #23.csv | 10/2/2019 | 2:35:38 PM | #23 | Soil | 29.71 | | 29.71 | | | | | | | | | | | | | | | | | 1870 | 80 | 273 | 42 | ND | |
| Res_543158_10_02_19 #24.csv | 10/2/2019 | 2:36:22 PM | #24 | Soil | 29.93 | | 29.93 | | | | | | | | | | | | | | | | | 830 | 76 | 235 | 46 | ND | |
| Res_543158_10_02_19 #25.csv | 10/2/2019 | 2:37:43 PM | #25 | Soil | 30.04 | | 30.04 | | | | | | | | | | | | | | | | | 1413 | 99 | 283 | 55 | ND | |
| Res_543158_10_02_19 #26.csv | 10/2/2019 | 2:38:30 PM | #26 | Soil | 29.87 | | 29.87 | | | | | | | | | | | | | | | | | 702 | 72 | ND | | ND | |
| Res_543158_10_02_19 #27.csv | 10/2/2019 | 2:39:12 PM | #27 | Soil | 30.01 | | 30.01 | | | | | | | | | | | | | | | | | 915 | 75 | ND | | ND | |
| Res_543158_10_02_19 #28.csv | 10/2/2019 | 2:40:07 PM | #28 | Soil | 29.47 | | 29.47 | | | | | | | | | | | | | | | | | 886 | 74 | 126 | 41 | ND | |
| Res_543158_10_02_19 #29.csv | 10/2/2019 | 2:40:56 PM | #29 | Soil | 29.96 | | 29.96 | | | | | | | | | | | | | | | | | 663 | 69 | ND | | ND | |
| Res_543158_10_02_19 #3.csv | 10/2/2019 | 9:28:49 AM | #3 | Soil | 29.45 | | 29.45 | | | | | | | | | | | | | | | | | 652 | 65 | ND | | ND | |
| Res_543158_10_02_19 #30.csv | 10/2/2019 | 2:41:44 PM | #30 | Soil | | | | | | | | | | | | | | | | | | | | 1500 | 94 | ND | | ND | |
| Res_543158_10_02_19 #31.csv | 10/2/2019 | 3:49:44 PM | #31 | Soil | 29.49 | | 29.49 | | | | | | | | | | | | | | | | | 4560 | 118 | 479 | 55 | 83 | 18 |
| Res_543158_10_02_19 #32.csv | 10/2/2019 | 3:49:54 PM | #32 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #33.csv | 10/2/2019 | 3:50:31 PM | #33 | Soil | 29.84 | | 29.84 | | | | | | | | | | | | | | | | | 2975 | 103 | 269 | 49 | ND | |
| Res_543158_10_02_19 #34.csv | 10/2/2019 | 3:51:11 PM | #34 | Soil | 29.62 | | 29.62 | | | | | | | | | | | | | | | | | 2925 | 120 | 355 | 59 | ND | |
| Res_543158_10_02_19 #35.csv | 10/2/2019 | 4:27:05 PM | #35 | Soil | 29.16 | | 29.16 | | | | | | | | | | | | | | | | | 416 | 69 | ND | | ND | |
| Res_543158_10_02_19 #36.csv | 10/2/2019 | 4:27:47 PM | #36 | Soil | 29.96 | | 29.96 | | | | | | | | | | | | | | | | | 606 | 60 | 145 | 36 | ND | |
| Res_543158_10_02_19 #37.csv | 10/2/2019 | 4:28:43 PM | #37 | Soil | 12.21 | | 12.21 | | | | | | | | | | | | | | | | | 958 | 158 | ND | | ND | |
| Res_543158_10_02_19 #38.csv | 10/2/2019 | 4:28:59 PM | #38 | Soil | 4.21 | | 4.21 | | | | | | | | | | | | | | | | | ND | | ND | | ND | |
| Res_543158_10_02_19 #39.csv | 10/2/2019 | 4:29:25 PM | #39 | Soil | 5.24 | | 5.24 | | | | | | | | | | | | | | | | | 907 | 214 | ND | | ND | |
| Res_543158_10_02_19 #4.csv | 10/2/2019 | 9:29:34 AM | #4 | Soil | 30.42 | | 30.42 | | | | | | | | | | | | | | | | | 1208 | 78 | 166 | 42 | ND | |
| Res_543158_10_02_19 #40.csv | 10/2/2019 | 4:29:29 PM | #40 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #41.csv | 10/2/2019 | 4:30:02 PM | #41 | Soil | 25.1 | | 25.1 | | | | | | | | | | | | | | | | | 1480 | 112 | ND | | ND | |
| Res_543158_10_02_19 #42.csv | 10/2/2019 | 4:31:38 PM | #42 | Soil | 10.59 | | 10.59 | | | | | | | | | | | | | | | | | 3301 | 195 | 555 | 99 | 109 | 33 |
| Res_543158_10_02_19 #43.csv | 10/2/2019 | 4:31:59 PM | #43 | Soil | 4.71 | | 4.71 | | | | | | | | | | | | | | | | | 2968 | 335 | ND | | ND | |
| Res_543158_10_02_19 #5.csv | 10/2/2019 | 9:30:09 AM | #5 | Soil | | | | | | | | | | | | | | | | | | | | 869 | 82 | ND | | ND | |
| Res_543158_10_02_19 #6.csv | 10/2/2019 | 9:30:54 AM | #6 | Soil | 29.81 | | 29.81 | | | | | | | | | | | | | | | | | 1015 | 72 | 170 | 40 | ND | |
| Res_543158_10_02_19 #7.csv | 10/2/2019 | 9:31:38 AM | #7 | Soil | | | | | | | | | | | | | | | | | | | | 1750 | 103 | ND | | 74 | 20 |
| Res_543158_10_02_19 #8.csv | 10/2/2019 | 9:32:34 AM | #8 | Soil | 29.79 | | 29.79 | | | | | | | | | | | | | | | | | 526 | 87 | ND | | ND | |
| Res_543158_10_02_19 #9.csv | 10/2/2019 | 10:58:15 AM | #9 | Soil | 29.47 | | 29.47 | | | | | | | | | | | | | | | | | 803 | 70 | 128 | 39 | ND | |
| Res_543158_10_03_19 #1.csv | 10/3/2019 | 7:56:23 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #10.csv | 10/3/2019 | 8:11:44 AM | #10 | Soil | 29.93 | | 29.93 | | | | | | | | | | | | | | | | | 273 | 54 | ND | | ND | |
| Res_543158_10_03_19 #11.csv | 10/3/2019 | 8:12:28 AM | #11 | Soil | 29.92 | | 29.92 | | | | | | | | | | | | | | | | | 318 | 52 | ND | | ND | |
| Res_543158_10_03_19 #12.csv | 10/3/2019 | 8:14:01 AM | #12 | Soil | 18.14 | | 18.14 | | | | | | | | | | | | | | | | | 851 | 91 | ND | | ND | |
| Res_543158_10_03_19 #13.csv | 10/3/2019 | 8:14:55 AM | #13 | Soil | | | | | | | | | | | | | | | | | | | | 857 | 75 | ND | | ND | |
| Res_543158_10_03_19 #14.csv | 10/3/2019 | 8:15:50 AM | #14 | Soil | 29.9 | | 29.9 | | | | | | | | | | | | | | | | | 720 | 68 | 125 | 39 | ND | |
| Res_543158_10_03_19 #15.csv | 10/3/2019 | 8:19:12 AM | #15 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 545 | 61 | ND | | ND | |
| Res_543158_10_03_19 #16.csv | 10/3/2019 | 8:22:47 AM | #16 | Soil | 29.39 | | 29.39 | | | | | | | | | | | | | | | | | 813 | 79 | ND | | ND | |
| Res_543158_10_03_19 #17.csv | 10/3/2019 | 8:23:13 AM | #17 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #18.csv | 10/3/2019 | 8:23:24 AM | #18 | Soil | 5.14 | | 5.14 | | | | | | | | | | | | | | | | | 1595 | 220 | ND | | ND | |
| Res_543158_10_03_19 #19.csv | 10/3/2019 | 8:23:50 AM | #19 | Soil | 7.37 | | 7.37 | | | | | | | | | | | | | | | | | 1783 | 188 | ND | | ND | |
| Res_543158_10_03_19 #2.csv | 10/3/2019 | 8:06:15 AM | #2 | Soil | 30.42 | | 30.42 | | | | | | | | | | | | | | | | | 731 | 90 | 206 | 52 | ND | |
| Res_543158_10_03_19 #20.csv | 10/3/2019 | 8:26:44 AM | #20 | Soil | 29.7 | | 29.7 | | | | | | | | | | | | | | | | | 1703 | 81 | 227 | 42 | 52 | 14 |
| Res_543158_10_03_19 #21.csv | 10/3/2019 | 8:40:30 AM | #21 | Soil | 30.27 | | 30.27 | | | | | | | | | | | | | | | | | 450 | 60 | ND | | ND | |
| Res_543158_10_03_19 #22.csv | 10/3/2019 | 8:41:27 AM | #22 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #23.csv | 10/3/2019 | 8:41:41 AM | #23 | Soil | 10.06 | | 10.06 | | | | | | | | | | | | | | | | | 1059 | 135 | ND | | ND | |
| Res_543158_10_03_19 #24.csv | 10/3/2019 | 8:41:48 AM | #24 | Soil | 4.79 | | 4.79 | | | | | | | | | | | | | | | | | 1195 | 303 | ND | | ND | |
| Res_543158_10_03_19 #25.csv | 10/3/2019 | 8:41:52 AM | #25 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #26.csv | 10/3/2019 | 9:59:53 AM | #26 | Soil | 30.14 | | 30.14 | | | | | | | | | | | | | | | | | 983 | 62 | 177 | 35 | ND | |
| Res_543158_10_03_19 #27.csv | 10/3/2019 | 10:00:34 AM | #27 | Soil | 30.03 | | 30.03 | | | | | | | | | | | | | | | | | 615 | 69 | 193 | 42 | ND | |
| Res_543158_10_03_19 #28.csv | 10/3/2019 | 10:01:18 AM | #28 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 921 | 67 | ND | | ND | |
| Res_543158_10_03_19 #29.csv | 10/3/2019 | 11:13:08 AM | #29 | Soil | 29.91 | | 29.91 | | | | | | | | | | | | | | | | | 651 | 70 | 140 | 42 | ND | |
| Res_543158_10_03_19 #3.csv | 10/3/2019 | 8:06:58 AM | #3 | Soil | 30.57 | | 30.57 | | | | | | | | | | | | | | | | | 632 | 112 | ND | | ND | |
| Res_543158_10_03_19 #30.csv | 10/3/2019 | 11:28:11 AM | #30 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #31.csv | 10/3/2019 | 11:28:50 AM | #31 | Soil | 29.87 | | 29.87 | | | | | | | | | | | | | | | | | 922 | 69 | 143 | 39 | ND | |
| Res_543158_10_03_19 #32.csv | 10/3/2019 | 11:29:32 AM | #32 | Soil | 30.33 | | 30.33 | | | | | | | | | | | | | | | | | 1077 | 71 | 143 | 39 | 60 | 15 |
| Res_543158_10_03_19 #34.csv | 10/3/2019 | 2:30:53 PM | #34 | Soil | | | | | | | | | | | | | | | | | | | | 532 | 114 | ND | | ND | |
| Res_543158_10_03_19 #35.csv | 10/3/2019 | 2:31:38 PM | #35 | Soil | 29.91 | | 29.91 | | | | | | | | | | | | | | | | | 582 | 59 | ND | | ND | |
| Res_543158_10_03_19 #36.csv | 10/3/2019 | 2:32:24 PM | #36 | Soil | 29.88 | | 29.88 | | | | | | | | | | | | | | | | | 770 | 70 | 200 | 41 | ND | |
| Res_543158_10_03_19 #37.csv | 10/3/2019 | 2:33:15 PM | #37 | Soil | 30.53 | | 30.53 | | | | | | | | | | | | | | | | | 1498 | 106 | 226 | 57 | ND | |
| Res_543158_10_03_19 #38.csv | 10/3/2019 | 2:34:04 PM | #38 | Soil | 29.98 | | 29.98 | | | | | | | | | | | | | | | | | 529 | 70 | ND | | ND | |
| Res_543158_10_03_19 #39.csv | 10/3/2019 | 2:34:35 PM | #39 | Soil | 5.21 | | 5.21 | | | | | | | | | | | | | | | | | ND | | ND | | ND | |
| Res_543158_10_03_19 #4.csv | 10/3/2019 | 8:07:19 AM | #4 | Soil | 5.67 | | 5.67 | | | | | | | | | | | | | | | | | 1466 | 207 | 567 | 119 | 137 | 44 |
| Res_543158_10_03_19 #40.csv | 10/3/2019 | 2:35:52 PM | #40 | Soil | 29.74 | | 29.74 | | | | | | | | | | | | | | | | | 940 | 63 | 191 | 36 | ND | |
| Res_543158_10_03_19 #41.csv | 10/3/2019 | 2:36:34 PM | #41 | Soil | 30.01 | | 30.01 | | | | | | | | | | | | | | | | | 2750 | 104 | 251 | 50 | ND | |
| Res_543158_10_03_19 #42.csv | 10/3/2019 | 2:37:18 PM | #42 | Soil | 29.84 | | 29.84 | | | | | | | | | | | | | | | | | 2458 | 94 | 182 | 45 | ND | |
| Res_543158_10_03_19 #43.csv | 10/3/2019 | 2:37:35 PM | #43 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #44.csv | 10/3/2019 | 2:38:14 PM | #44 | Soil | 29.84 | | 29.84 | | | | | | | | | | | | | | | | | 2957 | 100 | 215 | 47 | ND | |
| Res_543158_10_03_19 #46.csv | 10/3/2019 | 2:39:01 PM | #46 | Soil | 29.29 | | 29.29 | | | | | | | | | | | | | | | | | 2856 | 102 | 219 | 48 | ND | |
| Res_543158_10_03_19 #47.csv | 10/3/2019 | 2:41:49 PM | #47 | Soil | 9.81 | | 9.81 | | | | | | | | | | | | | | | | | 2439 | 164 | ND | | ND | |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_03_19 #48.csv | 10/3/2019 | 2:42:26 PM | #48 | Soil | 29.41 | | 29.41 | | | | | | | | | | | | | | | | | 2952 | 102 | 306 | 49 | ND | | |
| Res_543158_10_03_19 #49.csv | 10/3/2019 | 2:55:42 PM | #49 | Soil | 29.74 | | 29.74 | | | | | | | | | | | | | | | | | 2697 | 95 | 225 | 46 | ND | | |
| Res_543158_10_03_19 #5.csv | 10/3/2019 | 8:08:02 AM | #5 | Soil | 30.37 | | 30.37 | | | | | | | | | | | | | | | | | 613 | 66 | ND | | ND | | |
| Res_543158_10_03_19 #50.csv | 10/3/2019 | 2:55:51 PM | #50 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #51.csv | 10/3/2019 | 2:56:29 PM | #51 | Soil | 30.37 | | 30.37 | | | | | | | | | | | | | | | | | 3090 | 107 | 288 | 51 | 63 | | 17 |
| Res_543158_10_03_19 #52.csv | 10/3/2019 | 2:56:41 PM | #52 | Soil | 7.87 | | 7.87 | | | | | | | | | | | | | | | | | 2731 | 194 | ND | | ND | | |
| Res_543158_10_03_19 #53.csv | 10/3/2019 | 2:56:53 PM | #53 | Soil | 4.14 | | 4.14 | | | | | | | | | | | | | | | | | 2983 | 269 | ND | | ND | | |
| Res_543158_10_03_19 #54.csv | 10/3/2019 | 2:57:16 PM | #54 | Soil | 7.91 | | 7.91 | | | | | | | | | | | | | | | | | 2443 | 178 | 364 | 91 | ND | | |
| Res_543158_10_03_19 #55.csv | 10/3/2019 | 3:18:38 PM | #55 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #56.csv | 10/3/2019 | 3:18:43 PM | #56 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #57.csv | 10/3/2019 | 3:19:18 PM | #57 | Soil | 30.03 | | 30.03 | | | | | | | | | | | | | | | | | 2504 | 103 | 179 | 49 | ND | | |
| Res_543158_10_03_19 #58.csv | 10/3/2019 | 3:19:55 PM | #58 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 2673 | 101 | 239 | 49 | ND | | |
| Res_543158_10_03_19 #59.csv | 10/3/2019 | 3:20:19 PM | #59 | Soil | 9.42 | | 9.42 | | | | | | | | | | | | | | | | | 2485 | 169 | 312 | 84 | ND | | |
| Res_543158_10_03_19 #6.csv | 10/3/2019 | 8:08:44 AM | #6 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 902 | 78 | ND | | ND | | |
| Res_543158_10_03_19 #60.csv | 10/3/2019 | 3:21:53 PM | #60 | Soil | 30.55 | | 30.55 | | | | | | | | | | | | | | | | | 2658 | 120 | 237 | 59 | ND | | |
| Res_543158_10_03_19 #61.csv | 10/3/2019 | 3:22:06 PM | #61 | Soil | 5.14 | | 5.14 | | | | | | | | | | | | | | | | | 3123 | 265 | ND | | ND | | |
| Res_543158_10_03_19 #62.csv | 10/3/2019 | 3:23:01 PM | #62 | Soil | 29.76 | | 29.76 | | | | | | | | | | | | | | | | | 3225 | 101 | 488 | 51 | ND | | |
| Res_543158_10_03_19 #63.csv | 10/3/2019 | 3:37:08 PM | #63 | Soil | 29.83 | | 29.83 | | | | | | | | | | | | | | | | | 2801 | 100 | 237 | 48 | ND | | |
| Res_543158_10_03_19 #65.csv | 10/3/2019 | 3:37:55 PM | #65 | Soil | 29.92 | | 29.92 | | | | | | | | | | | | | | | | | 2908 | 110 | 260 | 53 | ND | | |
| Res_543158_10_03_19 #66.csv | 10/3/2019 | 3:38:40 PM | #66 | Soil | 29.85 | | 29.85 | | | | | | | | | | | | | | | | | 2079 | 99 | 210 | 50 | ND | | |
| Res_543158_10_03_19 #67.csv | 10/3/2019 | 4:22:42 PM | #67 | Soil | | | | | | | | | | | | | | | | | | | | 2455 | 124 | 204 | 61 | ND | | |
| Res_543158_10_03_19 #68.csv | 10/3/2019 | 4:23:23 PM | #68 | Soil | 29.78 | | 29.78 | | | | | | | | | | | | | | | | | 3124 | 105 | 368 | 51 | 51 | | 17 |
| Res_543158_10_03_19 #69.csv | 10/3/2019 | 4:24:05 PM | #69 | Soil | 29.93 | | 29.93 | | | | | | | | | | | | | | | | | 2164 | 92 | 194 | 46 | ND | | |
| Res_543158_10_03_19 #7.csv | 10/3/2019 | 8:09:31 AM | #7 | Soil | 30.57 | | 30.57 | | | | | | | | | | | | | | | | | ND | | ND | | ND | | |
| Res_543158_10_03_19 #70.csv | 10/3/2019 | 4:24:44 PM | #70 | Soil | 29.84 | | 29.84 | | | | | | | | | | | | | | | | | 2103 | 82 | 225 | 41 | ND | | |
| Res_543158_10_03_19 #72.csv | 10/3/2019 | 4:26:43 PM | #72 | Soil | 29.91 | | 29.91 | | | | | | | | | | | | | | | | | 2853 | 129 | 299 | 64 | ND | | |
| Res_543158_10_03_19 #73.csv | 10/3/2019 | 4:27:23 PM | #73 | Soil | 29.27 | | 29.27 | | | | | | | | | | | | | | | | | 2715 | 99 | 506 | 52 | 68 | | 17 |
| Res_543158_10_03_19 #74.csv | 10/3/2019 | 4:28:11 PM | #74 | Soil | 29.92 | | 29.92 | | | | | | | | | | | | | | | | | 3555 | 121 | 325 | 57 | ND | | |
| Res_543158_10_03_19 #75.csv | 10/3/2019 | 4:32:55 PM | #75 | Soil | 29.95 | | 29.95 | | | | | | | | | | | | | | | | | 1590 | 85 | ND | | ND | | |
| Res_543158_10_03_19 #76.csv | 10/3/2019 | 4:33:02 PM | #76 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #77.csv | 10/3/2019 | 4:33:36 PM | #77 | Soil | 29.84 | | 29.84 | | | | | | | | | | | | | | | | | 2826 | 97 | 212 | 46 | ND | | |
| Res_543158_10_03_19 #78.csv | 10/3/2019 | 5:09:06 PM | #78 | Soil | 29.78 | | 29.78 | | | | | | | | | | | | | | | | | 1055 | 69 | ND | | 41 | | 14 |
| Res_543158_10_03_19 #79.csv | 10/3/2019 | 5:09:48 PM | #79 | Soil | 29.93 | | 29.93 | | | | | | | | | | | | | | | | | 1560 | 84 | 210 | 45 | ND | | |
| Res_543158_10_03_19 #8.csv | 10/3/2019 | 8:10:56 AM | #8 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #80.csv | 10/3/2019 | 5:10:28 PM | #80 | Soil | 30.02 | | 30.02 | | | | | | | | | | | | | | | | | 2450 | 121 | 203 | 59 | ND | | |
| Res_543158_10_03_19 #81.csv | 10/3/2019 | 5:11:08 PM | #81 | Soil | 29.82 | | 29.82 | | | | | | | | | | | | | | | | | 782 | 72 | 126 | 41 | ND | | |
| Res_543158_10_03_19 #82.csv | 10/3/2019 | 5:11:55 PM | #82 | Soil | 30.26 | | 30.26 | | | | | | | | | | | | | | | | | 571 | 60 | ND | | ND | | |
| Res_543158_10_03_19 #83.csv | 10/3/2019 | 5:34:13 PM | #83 | Soil | 5.22 | | 5.22 | | | | | | | | | | | | | | | | | 2457 | 264 | ND | | ND | | |
| Res_543158_10_03_19 #84.csv | 10/3/2019 | 5:34:47 PM | #84 | Soil | 29.54 | | 29.54 | | | | | | | | | | | | | | | | | 1287 | 88 | ND | | ND | | |
| Res_543158_10_03_19 #85.csv | 10/3/2019 | 5:35:38 PM | #85 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #86.csv | 10/3/2019 | 5:35:51 PM | #86 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #87.csv | 10/3/2019 | 5:40:44 PM | #87 | Soil | 30.3 | | 30.3 | | | | | | | | | | | | | | | | | 1156 | 71 | 167 | 39 | ND | | |
| Res_543158_10_03_19 #88.csv | 10/3/2019 | 5:41:26 PM | #88 | Soil | 29.83 | | 29.83 | | | | | | | | | | | | | | | | | 1732 | 85 | 287 | 45 | ND | | |
| Res_543158_10_03_19 #89.csv | 10/3/2019 | 5:41:47 PM | #89 | Soil | 6.84 | | 6.84 | | | | | | | | | | | | | | | | | 947 | 143 | ND | | ND | | |
| Res_543158_10_03_19 #9.csv | 10/3/2019 | 8:11:08 AM | #9 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #90.csv | 10/3/2019 | 5:42:45 PM | #90 | Soil | 29.76 | | 29.76 | | | | | | | | | | | | | | | | | 777 | 64 | ND | | ND | | |
| Res_543158_10_04_19 #1.csv | 10/4/2019 | 8:31:10 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #10.csv | 10/4/2019 | 9:12:34 AM | #10 | Soil | 3.01 | | 3.01 | | | | | | | | | | | | | | | | | 3471 | 320 | ND | | ND | | |
| Res_543158_10_04_19 #11.csv | 10/4/2019 | 9:15:33 AM | #11 | Soil | 39.32 | 39.75 | 79.06 | ND | | 785 | 122 | ND | | 6860 | 82 | 3587 | 50 | 1416 | 17 | 34.6 | 1.8 | 28 | | 3 |
| Res_543158_10_04_19 #12.csv | 10/4/2019 | 9:23:38 AM | #12 | Soil | 5.15 | | 5.15 | | | | | | | | | | | | | | | | | ND | | ND | | ND | | |
| Res_543158_10_04_19 #13.csv | 10/4/2019 | 9:24:30 AM | #13 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 716 | 68 | 130 | 39 | ND | | |
| Res_543158_10_04_19 #14.csv | 10/4/2019 | 9:27:23 AM | #14 | Soil | 7.3 | | 7.3 | | | | | | | | | | | | | | | | | 811 | 139 | ND | | ND | | |
| Res_543158_10_04_19 #15.csv | 10/4/2019 | 9:28:14 AM | #15 | Soil | 29.81 | | 29.81 | | | | | | | | | | | | | | | | | 669 | 61 | ND | | ND | | |
| Res_543158_10_04_19 #16.csv | 10/4/2019 | 9:29:03 AM | #16 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #17.csv | 10/4/2019 | 9:29:10 AM | #17 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #18.csv | 10/4/2019 | 9:30:36 AM | #18 | Soil | 39.36 | 39.8 | 79.15 | ND | | 1102 | 118 | ND | | 11199 | 107 | ND | 642 | | 11 | 15.5 | 1.3 | 23 | | 2 |
| Res_543158_10_04_19 #19.csv | 10/4/2019 | 10:13:04 AM | #19 | Soil | 29.6 | | 29.6 | | | | | | | | | | | | | | | | | 2284 | 92 | 205 | 45 | ND | | |
| Res_543158_10_04_19 #2.csv | 10/4/2019 | 8:40:31 AM | #2 | Soil | 39.33 | 39.71 | 79.04 | ND | | ND | | ND | | 5643 | 72 | 3634 | 49 | 1690 | 19 | 45.0 | 1.9 | 53 | | 3 |
| Res_543158_10_04_19 #20.csv | 10/4/2019 | 10:13:22 AM | #20 | Soil | 4.04 | | 4.04 | | | | | | | | | | | | | | | | | 2383 | 247 | ND | | ND | | |
| Res_543158_10_04_19 #21.csv | 10/4/2019 | 10:14:58 AM | #21 | Soil | 39.34 | 39.73 | 79.07 | ND | | 511 | 123 | ND | | 9138 | 98 | 6546 | 69 | 2480 | 25 | 47 | 2 | 35 | | 3 |
| Res_543158_10_04_19 #22.csv | 10/4/2019 | 10:17:09 AM | #22 | Soil | 39.37 | 39.77 | 79.14 | ND | | ND | | ND | | 8582 | 101 | 6274 | 72 | 2257 | 25 | 47 | 2 | 28 | | 3 |
| Res_543158_10_04_19 #24.csv | 10/4/2019 | 10:19:17 AM | #24 | Soil | 4.15 | | 4.15 | | | | | | | | | | | | | | | | | 2177 | 262 | ND | | ND | | |
| Res_543158_10_04_19 #25.csv | 10/4/2019 | 10:20:08 AM | #25 | Soil | | | | | | | | | | | | | | | | | | | | 1779 | 80 | 122 | 40 | ND | | |
| Res_543158_10_04_19 #26.csv | 10/4/2019 | 10:21:34 AM | #26 | Soil | 39.62 | 39.82 | 79.43 | ND | | ND | | ND | | 3583 | 73 | 2499 | 50 | 1486 | 22 | 39 | 2 | 73 | | 4 |
| Res_543158_10_04_19 #27.csv | 10/4/2019 | 10:23:40 AM | #27 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #28.csv | 10/4/2019 | 10:24:28 AM | #28 | Soil | | | | | | | | | | | | | | | | | | | | 3007 | 157 | ND | | ND | | |
| Res_543158_10_04_19 #29.csv | 10/4/2019 | 10:24:32 AM | #29 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #30.csv | 10/4/2019 | 10:25:57 AM | #30 | Soil | 39.6 | 39.8 | 79.4 | ND | | ND | | ND | | 9694 | 127 | 5882 | 81 | 2621 | 31 | 58 | 3 | 53 | | 4 |
| Res_543158_10_04_19 #31.csv | 10/4/2019 | 10:45:32 AM | #31 | Soil | 39.55 | 39.83 | 79.37 | ND | | 1274 | 179 | ND | | 11979 | 146 | 2859 | 60 | 2130 | 28 | 53 | 3 | 33 | | 4 |
| Res_543158_10_04_19 #32.csv | 10/4/2019 | 10:47:40 AM | #32 | Soil | 39.47 | 39.79 | 79.26 | ND | | 1452 | 181 | ND | | 15548 | 166 | 947 | 47 | 1429 | 22 | 50 | 2 | 21 | | 4 |
| Res_543158_10_04_19 #33.csv | 10/4/2019 | 10:50:22 AM | #33 | Soil | 9.05 | | 9.05 | | | | | | | | | | | 1596 | 156 | ND | | ND | | |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_04_19 #34.csv | 10/4/2019 | 10:51:03 AM | #34 | Soil | 4.17 | | 4.17 | | | | | | | | | | | | | | | | | 991 | 220 | ND | | ND | |
| Res_543158_10_04_19 #35.csv | 10/4/2019 | 10:53:56 AM | #35 | Soil | 39.36 | 39.81 | 79.17 | | | | | | | ND | | 2189 | 170 | ND | | 22114 | 187 | 448 | | 38 | 1524 | 19 | 47 | 2 | 24 | 3 |
| Res_543158_10_04_19 #36.csv | 10/4/2019 | 10:56:25 AM | #36 | Soil | 39.53 | 39.84 | 79.37 | | | | | | | ND | | 1109 | 161 | ND | | 12294 | 145 | 517 | | 38 | 883 | 17 | 33 | 2 | 65 | 4 |
| Res_543158_10_04_19 #37.csv | 10/4/2019 | 10:59:43 AM | #37 | Soil | 39.5 | 39.85 | 79.35 | | | | | | | ND | | 1255 | 155 | ND | | 22953 | 209 | 231 | | 39 | 1446 | 20 | 35 | 2 | 41 | 3 |
| Res_543158_10_04_19 #39.csv | 10/4/2019 | 11:03:47 AM | #39 | Soil | 39.4 | 39.84 | 79.24 | | | | | | | ND | | 1670 | 147 | ND | | 13861 | 134 | 190 | | 29 | 747 | 13 | 19.4 | 1.5 | 27 | 3 |
| Res_543158_10_04_19 #4.csv | 10/4/2019 | 8:53:56 AM | #4 | Soil | 39.36 | 39.71 | 79.07 | | | | | | | ND | | 519 | 140 | ND | | 9704 | 108 | 7347 | | 79 | 2760 | 28 | 67 | 3 | 24 | 4 |
| Res_543158_10_04_19 #40.csv | 10/4/2019 | 11:07:15 AM | #40 | Soil | 39.61 | 39.82 | 79.42 | | | | | | | ND | | 516 | 136 | 150 | | 46 5076 | 87 | ND | | 405 | | 12 | 34.7 | 1.9 | 82 | 4 |
| Res_543158_10_04_19 #41.csv | 10/4/2019 | 11:14:04 AM | #41 | Soil | 39.38 | 39.77 | 79.15 | | | | | | | ND | | 4345 | 220 | ND | | 17517 | 160 | ND | | 878 | | 15 | 38.1 | 1.9 | 9 | 3 |
| Res_543158_10_04_19 #42.csv | 10/4/2019 | 11:17:12 AM | #42 | Soil | 39.53 | 39.86 | 79.39 | | | | | | | ND | | 1338 | 157 | ND | | 17029 | 173 | 143 | | 34 | 904 | 16 | 31.4 | 1.9 | 37 | 3 |
| Res_543158_10_04_19 #43.csv | 10/4/2019 | 11:21:16 AM | #43 | Soil | 39.3 | 39.79 | 79.08 | | | | | | | ND | | 1752 | 145 | ND | | 24798 | 187 | 390 | | 35 | 1969 | 21 | 55 | 2 | 23 | 3 |
| Res_543158_10_04_19 #44.csv | 10/4/2019 | 11:22:41 AM | #44 | Soil | 39.31 | 39.79 | 79.1 | | | | | | | ND | | 1828 | 149 | ND | | 25508 | 194 | 411 | | 36 | 1641 | 19 | 54.1 | 2 | 20 | 3 |
| Res_543158_10_04_19 #45.csv | 10/4/2019 | 11:26:45 AM | #45 | Soil | 39.36 | 39.77 | 79.14 | | | | | | | ND | | 1919 | 151 | ND | | 15313 | 136 | 127 | | 30 | 1358 | 17 | 38.8 | 1.8 | 33 | 3 |
| Res_543158_10_04_19 #46.csv | 10/4/2019 | 11:28:53 AM | #46 | Soil | 17.55 | | 17.55 | | | | | | | | | | | | | | | | | 1090 | | 90 | ND | | ND | |
| Res_543158_10_04_19 #47.csv | 10/4/2019 | 11:30:18 AM | #47 | Soil | 39.38 | 39.78 | 79.17 | | | | | | | ND | | ND | | ND | | 11324 | 106 | 433 | | 26 | 1204 | 15 | 42.8 | 1.7 | 70 | 3 |
| Res_543158_10_04_19 #48.csv | 10/4/2019 | 11:32:53 AM | #48 | Soil | 39.44 | 39.86 | 79.29 | | | | | | | ND | | 940 | 130 | ND | | 18059 | 166 | 622 | | 35 | 683 | 13 | 29.7 | 1.6 | 33 | 3 |
| Res_543158_10_04_19 #49.csv | 10/4/2019 | 11:35:48 AM | #49 | Soil | 39.53 | 39.81 | 79.35 | | | | | | | ND | | 2990 | 219 | ND | | 15287 | 164 | 848 | | 44 | 872 | 17 | 34 | 2 | 29 | 4 |
| Res_543158_10_04_19 #5.csv | 10/4/2019 | 8:56:02 AM | #5 | Soil | 4.68 | | 4.68 | | | | | | | | | | | | | | | | | 2641 | | 297 | 547 | 157 | ND | |
| Res_543158_10_04_19 #50.csv | 10/4/2019 | 11:39:36 AM | #50 | Soil | 39.39 | 39.79 | 79.19 | | | | | | | ND | | 780 | 129 | ND | | 11792 | 121 | 2334 | | 46 | 1739 | 21 | 43 | 2 | 34 | 3 |
| Res_543158_10_04_19 #51.csv | 10/4/2019 | 11:45:01 AM | #51 | Soil | 39.35 | 39.74 | 79.09 | | | | | | | ND | | 729 | 116 | 145 | | 36 5937 | 74 | 2496 | | 41 | 1158 | 15 | 33.2 | 1.7 | 46 | 3 |
| Res_543158_10_04_19 #52.csv | 10/4/2019 | 11:48:12 AM | #52 | Soil | 39.65 | 39.84 | 79.5 | | | | | | | ND | | ND | | ND | | 2670 | 68 | 1662 | | 44 | 884 | 17 | 36 | 2 | 63 | 4 |
| Res_543158_10_04_19 #53.csv | 10/4/2019 | 11:51:05 AM | #53 | Soil | 39.4 | 39.77 | 79.17 | | | | | | | ND | | 348 | 114 | ND | | 6388 | 83 | 3436 | | 51 | 1286 | 17 | 37.8 | 1.9 | 51 | 3 |
| Res_543158_10_04_19 #6.csv | 10/4/2019 | 9:10:22 AM | #6 | Soil | 29.81 | | 29.81 | | | | | | | | | | | | | | | | | 1420 | | 79 | ND | | ND | |
| Res_543158_10_04_19 #7.csv | 10/4/2019 | 9:11:38 AM | #7 | Soil | 13.14 | | 13.14 | | | | | | | | | | | | | | | | | 1946 | | 125 | ND | | ND | |
| Res_543158_10_04_19 #8.csv | 10/4/2019 | 9:12:05 AM | #8 | Soil | 5.69 | | 5.69 | | | | | | | | | | | | | | | | | 1347 | | 186 | ND | | ND | |
| Res_543158_10_04_19 #9.csv | 10/4/2019 | 9:12:24 AM | #9 | Soil | 8.42 | | 8.42 | | | | | | | | | | | | | | | | | 2125 | | 165 | 282 | 85 | ND | |
| Res_543158_10_07_19 #1.csv | 10/7/2019 | 7:50:11 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #10.csv | 10/7/2019 | 8:57:55 AM | #10 | Soil | 39.52 | 15.17 | 54.7 | | | | | | | ND | | 1474 | 258 | ND | | 11659 | 216 | ND | | 502 | | 20 | 27 | 3 | 25 | 5 |
| Res_543158_10_07_19 #100.csv | 10/7/2019 | 4:23:32 PM | #100 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #101.csv | 10/7/2019 | 4:25:04 PM | #101 | Soil | 39.5 | 39.78 | 79.28 | | | | | | | ND | | ND | | 328 | | 59 7541 | 106 | 17496 | | 157 | 2315 | 28 | 56 | 3 | 31 | 4 |
| Res_543158_10_07_19 #102.csv | 10/7/2019 | 4:31:16 PM | #102 | Soil | 39.51 | 39.76 | 79.27 | | | | | | | ND | | 479 | 155 | ND | | 8597 | 111 | 8557 | | 95 | 2570 | 29 | 58 | 3 | 30 | 4 |
| Res_543158_10_07_19 #103.csv | 10/7/2019 | 4:35:04 PM | #103 | Soil | 39.43 | 39.73 | 79.16 | | | | | | | ND | | 638 | 154 | ND | | 6784 | 90 | 15569 | | 130 | 2569 | 27 | 63 | 3 | 26 | 4 |
| Res_543158_10_07_19 #104.csv | 10/7/2019 | 4:40:42 PM | #104 | Soil | 39.61 | 39.8 | 79.42 | | | | | | | ND | | ND | | ND | | 10401 | 141 | 10166 | | 119 | 2887 | 36 | 67 | 3 | 45 | 5 |
| Res_543158_10_07_19 #105.csv | 10/7/2019 | 4:44:09 PM | #105 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #106.csv | 10/7/2019 | 4:44:47 PM | #106 | Soil | 30.4 | | 30.4 | | | | | | | | | | | | | | | | | 3369 | | 104 | 245 | 48 | 68 | 16 |
| Res_543158_10_07_19 #107.csv | 10/7/2019 | 4:45:05 PM | #107 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #108.csv | 10/7/2019 | 4:45:41 PM | #108 | Soil | 31.57 | | 31.57 | | | | | | | | | | | | | | | | | 3226 | | 107 | 302 | 51 | ND | |
| Res_543158_10_07_19 #109.csv | 10/7/2019 | 4:46:23 PM | #109 | Soil | 29.8 | | 29.8 | | | | | | | | | | | | | | | | | 2630 | | 102 | 234 | 49 | ND | |
| Res_543158_10_07_19 #11.csv | 10/7/2019 | 8:59:32 AM | #11 | Soil | 39.53 | 35.45 | 74.98 | | | | | | | ND | | 2037 | 198 | ND | | 9102 | 128 | ND | | 463 | | 13 | 21.1 | 1.8 | 28 | 4 |
| Res_543158_10_07_19 #110.csv | 10/7/2019 | 4:47:11 PM | #110 | Soil | 31 | | 31 | | | | | | | | | | | | | | | | | 3128 | | 108 | 215 | 50 | ND | |
| Res_543158_10_07_19 #111.csv | 10/7/2019 | 4:48:29 PM | #111 | Soil | 31.46 | | 31.46 | | | | | | | | | | | | | | | | | 2515 | | 100 | 181 | 48 | ND | |
| Res_543158_10_07_19 #112.csv | 10/7/2019 | 4:49:20 PM | #112 | Soil | 30.96 | | 30.96 | | | | | | | | | | | | | | | | | 3098 | | 110 | 295 | 52 | ND | |
| Res_543158_10_07_19 #113.csv | 10/7/2019 | 4:50:03 PM | #113 | Soil | 29.97 | | 29.97 | | | | | | | | | | | | | | | | | 2780 | | 109 | 278 | 53 | ND | |
| Res_543158_10_07_19 #114.csv | 10/7/2019 | 4:53:38 PM | #114 | Soil | 30.46 | | 30.46 | | | | | | | | | | | | | | | | | 2760 | | 104 | 230 | 50 | ND | |
| Res_543158_10_07_19 #115.csv | 10/7/2019 | 4:54:19 PM | #115 | Soil | 30.86 | | 30.86 | | | | | | | | | | | | | | | | | 2928 | | 99 | 199 | 46 | ND | |
| Res_543158_10_07_19 #12.csv | 10/7/2019 | 9:03:44 AM | #12 | Soil | 39.42 | 39.77 | 79.19 | | | | | | | ND | | 470 | 156 | ND | | 8530 | 113 | 8104 | | 93 | 2613 | 30 | 56 | 3 | 24 | 4 |
| Res_543158_10_07_19 #13.csv | 10/7/2019 | 9:06:33 AM | #13 | Soil | 39.36 | 39.75 | 79.12 | | | | | | | ND | | 597 | 132 | ND | | 7763 | 94 | 6053 | | 70 | 1869 | 22 | 46 | 2 | 30 | 3 |
| Res_543158_10_07_19 #14.csv | 10/7/2019 | 9:10:01 AM | #14 | Soil | 32.06 | | 32.06 | | | | | | | | | | | | | | | | | 1528 | | 77 | 158 | 40 | ND | |
| Res_543158_10_07_19 #15.csv | 10/7/2019 | 9:11:37 AM | #15 | Soil | 30.78 | | 30.78 | | | | | | | | | | | | | | | | | 1793 | | 80 | ND | | ND | |
| Res_543158_10_07_19 #16.csv | 10/7/2019 | 9:15:55 AM | #16 | Soil | 39.34 | 39.77 | 79.11 | | | | | | | ND | | 1618 | 143 | ND | | 15541 | 137 | 762 | | 34 | 1209 | 16 | 28.6 | 1.7 | 27 | 3 |
| Res_543158_10_07_19 #17.csv | 10/7/2019 | 9:17:32 AM | #17 | Soil | 39.37 | 39.78 | 79.14 | | | | | | | ND | | 1528 | 140 | ND | | 15714 | 138 | 850 | | 35 | 1323 | 17 | 29.1 | 1.7 | 30 | 3 |
| Res_543158_10_07_19 #18.csv | 10/7/2019 | 9:20:25 AM | #18 | Soil | 30.19 | | 30.19 | | | | | | | | | | | | | | | | | 2367 | | 87 | 220 | 43 | ND | |
| Res_543158_10_07_19 #19.csv | 10/7/2019 | 9:21:03 AM | #19 | Soil | 10.58 | | 10.58 | | | | | | | | | | | | | | | | | 1915 | | 144 | ND | | ND | |
| Res_543158_10_07_19 #2.csv | 10/7/2019 | 8:46:49 AM | #2 | Soil | 39.38 | 39.73 | 79.12 | | | | | | | ND | | ND | | ND | | 7674 | 94 | 6494 | | 73 | 2132 | 24 | 52 | 2 | 29 | 3 |
| Res_543158_10_07_19 #20.csv | 10/7/2019 | 9:22:34 AM | #20 | Soil | 39.36 | 39.77 | 79.12 | | | | | | | ND | | 1024 | 140 | ND | | 7758 | 93 | 4801 | | 61 | 1890 | 22 | 40 | 2 | 26 | 3 |
| Res_543158_10_07_19 #21.csv | 10/7/2019 | 9:24:03 AM | #21 | Soil | 17.9 | | 17.9 | | | | | | | | | | | | | | | | | 915 | | 88 | ND | | ND | |
| Res_543158_10_07_19 #22.csv | 10/7/2019 | 9:25:27 AM | #22 | Soil | 39.32 | 39.74 | 79.06 | | | | | | | ND | | 3841 | 195 | ND | | 13421 | 125 | ND | | 907 | | 14 | 23.1 | 1.6 | ND | |
| Res_543158_10_07_19 #23.csv | 10/7/2019 | 9:29:38 AM | #23 | Soil | 39.46 | 39.87 | 79.33 | | | | | | | ND | | ND | | ND | | 17237 | 167 | 438 | | 34 | 1075 | 16 | 33.3 | 1.8 | 29 | 3 |
| Res_543158_10_07_19 #24.csv | 10/7/2019 | 9:31:43 AM | #24 | Soil | 39.47 | 27.29 | 66.77 | | | | | | | ND | | ND | | ND | | 9469 | 141 | 7675 | | 107 | 2447 | 34 | 53 | 3 | 22 | 5 |
| Res_543158_10_07_19 #25.csv | 10/7/2019 | 9:36:10 AM | #25 | Soil | 39.37 | 39.71 | 79.08 | | | | | | | ND | | ND | | ND | | 8000 | 95 | 7511 | | 79 | 2206 | 24 | 62 | 2 | 32 | 3 |
| Res_543158_10_07_19 #26.csv | 10/7/2019 | 9:42:51 AM | #26 | Soil | 39.49 | 39.77 | 79.26 | | | | | | | ND | | 630 | 165 | ND | | 9546 | 121 | 9729 | | 105 | 2660 | 31 | 62 | 3 | 31 | 4 |
| Res_543158_10_07_19 #27.csv | 10/7/2019 | 9:45:10 AM | #27 | Soil | 39.38 | 39.82 | 79.2 | | | | | | | ND | | 1409 | 132 | ND | | 16043 | 139 | 363 | | 30 | 1023 | 14 | 24.8 | 1.6 | 27 | 3 |
| Res_543158_10_07_19 #28.csv | 10/7/2019 | 9:47:29 AM | #28 | Soil | 34.7 | | 34.7 | | | | | | | | | | | | | | | | | 892 | | 66 | ND | | ND | |
| Res_543158_10_07_19 #29.csv | 10/7/2019 | 9:47:55 AM | #29 | Soil | 8.96 | | 8.96 | | | | | | | | | | | | | | | | | 990 | | 131 | ND | | ND | |
| Res_543158_10_07_19 #30.csv | 10/7/2019 | 9:49:19 AM | #30 | Soil | 39.37 | 39.81 | 79.18 | | | | | | | ND | | 2583 | 180 | ND | | 15969 | 151 | 345 | | 34 | 989 | 16 | 16.6 | 1.7 | 16 | 3 |
| Res_543158_10_07_19 #31.csv | 10/7/2019 | 9:50:56 AM | #31 | Soil | 13.68 | | 13.68 | | | | | | | | | | | | | | | | | 2595 | | 140 | 264 | 69 | ND | |
| Res_543158_10_07_19 #32.csv | 10/7/2019 | 9:51:21 AM | #32 | Soil | 21.99 | | 21.99 | | | | | | | | | | | | | | | | | 2917 | | 115 | 245 | 55 | ND | |
| Res_543158_10_07_19 #33.csv | 10/7/2019 | 9:52:47 AM | #33 | Soil | 39.32 | 39.71 | 79.02 | | | | | | | ND | | 1406 | 157 | ND | | 8254 | 95 | 7980 | | 80 | 2583 | 26 | 62 | 2 | 18 | 3 |
| Res_543158_10_07_19 #34.csv | 10/7/2019 | 9:59:41 AM | #34 | Soil | 31.17 | | 31.17 | | | | | | | | | | | | | | | | | 1660 | | 76 | ND | | ND | |
| Res_543158_10_07_19 #35.csv | 10/7/2019 | 10:00:39 AM | #35 | Soil | 31.41 | | 31.41 | | | | | | | | | | | | | | | | | 2452 | | 91 | 180 | 44 | ND | |
| Res_543158_10_07_19 #36.csv | 10/7/2019 | 10:02:26 AM | #36 | Soil | 34.21 | | 34.21 | | | | | | | | | | | | | | | | | 2334 | | 87 | 167 | 42 | 58 | 15 |
| Res_543158_10_07_19 #37.csv | 10/7/2019 | 10:06:30 AM | #37 | Soil | 39.38 | 39.73 | 79.11 | | | | | | | ND | | ND | | ND | | 4534 | 67 | 7481 | | 75 | 1686 | 20 | 40.4 | 2 | 26 | 3 |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_07_19 #38.csv | 10/7/2019 | 10:10:20 AM | #38 | Soil | 39.42 | 39.73 | 79.15 | | | | | | | ND | | ND | | ND | | 7856 | 98 | 12787 | 114 | 2639 | 28 | 62 | 3 | 13 | 3 |
| Res_543158_10_07_19 #39.csv | 10/7/2019 | 10:13:35 AM | #39 | Soil | 39.39 | 39.83 | 79.21 | | | | | | | ND | | 942 | 116 | 104 | | 33 | 12725 | 120 | 466 | 28 | 783 | 12 | 20.3 | 1.4 | 32 | 3 |
| Res_543158_10_07_19 #4.csv | 10/7/2019 | 8:49:44 AM | #4 | Soil | 29.75 | | 29.75 | | | | | | | | | | | | | | | | | 1811 | | 101 | 174 | 51 | ND | |
| Res_543158_10_07_19 #40.csv | 10/7/2019 | 10:15:06 AM | #40 | Soil | 39.35 | 39.82 | 79.17 | | | | | | | ND | | 1059 | 120 | ND | | 12856 | 121 | 444 | | 28 | 747 | 12 | 20.7 | 1.4 | 28 | 2 |
| Res_543158_10_07_19 #41.csv | 10/7/2019 | 10:24:05 AM | #41 | Soil | 39.44 | 39.75 | 79.19 | | | | | | | ND | | 701 | 154 | ND | | 8794 | 109 | 7995 | | 88 | 2661 | 29 | 59 | 3 | 29 | 4 |
| Res_543158_10_07_19 #42.csv | 10/7/2019 | 10:27:48 AM | #42 | Soil | 39.5 | 39.75 | 79.26 | | | | | | | ND | | ND | | 116 | | 35 | 2772 | 53 | 1472 | 34 | 860 | 14 | 31.9 | 1.7 | 74 | 3 |
| Res_543158_10_07_19 #43.csv | 10/7/2019 | 10:33:40 AM | #43 | Soil | 39.33 | 39.79 | 79.13 | | | | | | | ND | | 4558 | 210 | ND | | 17858 | 153 | 2036 | | 44 | 992 | 15 | 34.5 | 1.7 | 22 | 3 |
| Res_543158_10_07_19 #44.csv | 10/7/2019 | 10:36:38 AM | #44 | Soil | 31.44 | | 31.44 | | | | | | | | | | | | | | | | | 664 | | 66 | 181 | 39 | ND | |
| Res_543158_10_07_19 #45.csv | 10/7/2019 | 10:38:18 AM | #45 | Soil | 39.36 | 39.8 | 79.15 | | | | | | | ND | | 1949 | 155 | ND | | 12384 | 122 | 750 | | 33 | 791 | 13 | 27.9 | 1.6 | 28 | 3 |
| Res_543158_10_07_19 #46.csv | 10/7/2019 | 10:41:10 AM | #46 | Soil | 39.55 | 39.75 | 79.3 | | | | | | | ND | | ND | | ND | | 9343 | 127 | 9236 | | 109 | 3445 | 39 | 77 | 3 | 52 | 5 |
| Res_543158_10_07_19 #47.csv | 10/7/2019 | 10:45:08 AM | #47 | Soil | 39.42 | 39.67 | 79.09 | | | | | | | ND | | ND | | ND | | 7828 | 97 | 7326 | | 81 | 2966 | 30 | 76 | 3 | 47 | 4 |
| Res_543158_10_07_19 #48.csv | 10/7/2019 | 10:50:22 AM | #48 | Soil | 39.38 | 39.7 | 79.07 | | | | | | | ND | | 753 | 150 | ND | | 9228 | 104 | 8811 | | 88 | 2956 | 29 | 64 | 3 | 23 | 4 |
| Res_543158_10_07_19 #49.csv | 10/7/2019 | 10:56:29 AM | #49 | Soil | 39.36 | 39.67 | 79.03 | | | | | | | ND | | ND | | ND | | 7988 | 95 | 7979 | | 82 | 2866 | 28 | 66 | 3 | 29 | 4 |
| Res_543158_10_07_19 #5.csv | 10/7/2019 | 8:49:58 AM | #5 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #50.csv | 10/7/2019 | 11:02:37 AM | #50 | Soil | 39.4 | 39.72 | 79.12 | | | | | | | ND | | 474 | 147 | ND | | 8253 | 100 | 13769 | | 119 | 2605 | 27 | 61 | 3 | 18 | 4 |
| Res_543158_10_07_19 #52.csv | 10/7/2019 | 11:04:52 AM | #52 | Soil | 39.32 | 39.68 | 79 | | | | | | | ND | | ND | | ND | | 7439 | 90 | 7401 | | 78 | 2504 | 26 | 56 | 2 | 28 | 4 |
| Res_543158_10_07_19 #53.csv | 10/7/2019 | 11:06:57 AM | #53 | Soil | 39.43 | 39.74 | 79.16 | | | | | | | ND | | ND | | ND | | 6959 | 91 | 25120 | | 185 | 2277 | 25 | 56 | 2 | 12 | 3 |
| Res_543158_10_07_19 #54.csv | 10/7/2019 | 11:31:04 AM | #54 | Soil | 39.5 | 39.79 | 79.29 | | | | | | | ND | | 784 | 162 | ND | | 12108 | 137 | 7434 | | 88 | 2209 | 27 | 56 | 3 | 26 | 4 |
| Res_543158_10_07_19 #55.csv | 10/7/2019 | 11:35:15 AM | #55 | Soil | 39.49 | 39.77 | 79.25 | | | | | | | ND | | 583 | 159 | ND | | 9149 | 117 | 7885 | | 92 | 2367 | 28 | 52 | 3 | 41 | 4 |
| Res_543158_10_07_19 #56.csv | 10/7/2019 | 11:38:09 AM | #56 | Soil | 39.55 | 39.84 | 79.4 | | | | | | | ND | | 702 | 147 | ND | | 9364 | 123 | 799 | | 39 | 582 | 14 | 21.1 | 1.8 | 35 | 4 |
| Res_543158_10_07_19 #57.csv | 10/7/2019 | 11:48:36 AM | #57 | Soil | 30.12 | | 30.12 | | | | | | | | | | | | | | | | | 2887 | | 106 | 229 | 50 | ND | |
| Res_543158_10_07_19 #58.csv | 10/7/2019 | 11:49:37 AM | #58 | Soil | 31 | | 31 | | | | | | | | | | | | | | | | | 3294 | | 122 | 232 | 57 | 72 | 19 |
| Res_543158_10_07_19 #59.csv | 10/7/2019 | 11:50:16 AM | #59 | Soil | 29.96 | | 29.96 | | | | | | | | | | | | | | | | | 3110 | | 105 | 366 | 51 | 67 | 17 |
| Res_543158_10_07_19 #6.csv | 10/7/2019 | 8:51:31 AM | #6 | Soil | 39.37 | 39.74 | 79.11 | | | | | | | ND | | 841 | 141 | ND | | 9742 | 107 | 6672 | | 74 | 1984 | 23 | 45 | 2 | 16 | 3 |
| Res_543158_10_07_19 #60.csv | 10/7/2019 | 11:51:24 AM | #60 | Soil | 30.36 | | 30.36 | | | | | | | | | | | | | | | | | 3133 | | 106 | 275 | 50 | 79 | 17 |
| Res_543158_10_07_19 #61.csv | 10/7/2019 | 11:52:14 AM | #61 | Soil | 30.84 | | 30.84 | | | | | | | | | | | | | | | | | 3074 | | 101 | 305 | 48 | 76 | 16 |
| Res_543158_10_07_19 #62.csv | 10/7/2019 | 11:53:00 AM | #62 | Soil | 30.87 | | 30.87 | | | | | | | | | | | | | | | | | 2651 | | 98 | 326 | 49 | ND | |
| Res_543158_10_07_19 #63.csv | 10/7/2019 | 11:54:30 AM | #63 | Soil | 31.02 | | 31.02 | | | | | | | | | | | | | | | | | 2712 | | 109 | 233 | 53 | ND | |
| Res_543158_10_07_19 #64.csv | 10/7/2019 | 11:55:20 AM | #64 | Soil | 31.4 | | 31.4 | | | | | | | | | | | | | | | | | 2989 | | 106 | 288 | 51 | 59 | 17 |
| Res_543158_10_07_19 #65.csv | 10/7/2019 | 11:57:20 AM | #65 | Soil | 31 | | 31 | | | | | | | | | | | | | | | | | 3498 | | 118 | 317 | 56 | 84 | 19 |
| Res_543158_10_07_19 #66.csv | 10/7/2019 | 12:03:20 PM | #66 | Soil | 30.55 | | 30.55 | | | | | | | | | | | | | | | | | 1166 | | 85 | 306 | 50 | ND | |
| Res_543158_10_07_19 #67.csv | 10/7/2019 | 2:12:24 PM | #67 | Soil | 30.79 | | 30.79 | | | | | | | | | | | | | | | | | 2585 | | 102 | 250 | 50 | ND | |
| Res_543158_10_07_19 #68.csv | 10/7/2019 | 2:13:09 PM | #68 | Soil | 30.45 | | 30.45 | | | | | | | | | | | | | | | | | 3194 | | 113 | 278 | 54 | ND | |
| Res_543158_10_07_19 #69.csv | 10/7/2019 | 2:13:51 PM | #69 | Soil | 30.91 | | 30.91 | | | | | | | | | | | | | | | | | 2250 | | 102 | 273 | 51 | ND | |
| Res_543158_10_07_19 #7.csv | 10/7/2019 | 8:53:49 AM | #7 | Soil | 39.35 | 39.75 | 79.1 | | | | | | | ND | | 714 | 131 | ND | | 8444 | 96 | 5186 | | 63 | 2111 | 23 | 42 | 2 | 18 | 3 |
| Res_543158_10_07_19 #70.csv | 10/7/2019 | 2:14:58 PM | #70 | Soil | 30.85 | | 30.85 | | | | | | | | | | | | | | | | | 3279 | | 106 | 355 | 51 | ND | |
| Res_543158_10_07_19 #71.csv | 10/7/2019 | 2:15:41 PM | #71 | Soil | 30.47 | | 30.47 | | | | | | | | | | | | | | | | | 3145 | | 114 | 299 | 55 | ND | |
| Res_543158_10_07_19 #72.csv | 10/7/2019 | 2:16:48 PM | #72 | Soil | 31.01 | | 31.01 | | | | | | | | | | | | | | | | | 3355 | | 114 | 173 | 52 | ND | |
| Res_543158_10_07_19 #73.csv | 10/7/2019 | 2:18:14 PM | #73 | Soil | 30.96 | | 30.96 | | | | | | | | | | | | | | | | | 2956 | | 102 | ND | 59 | | 16 |
| Res_543158_10_07_19 #74.csv | 10/7/2019 | 2:18:37 PM | #74 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #75.csv | 10/7/2019 | 2:19:15 PM | #75 | Soil | 30.39 | | 30.39 | | | | | | | | | | | | | | | | | 2643 | | 98 | 338 | 49 | 51 | 16 |
| Res_543158_10_07_19 #76.csv | 10/7/2019 | 2:32:16 PM | #76 | Soil | 39.29 | 39.73 | 79.02 | | | | | | | ND | | 1840 | 148 | 379 | | 42 | 8859 | 94 | 2166 | 41 | 814 | 13 | 34.8 | 1.6 | 50 | 3 |
| Res_543158_10_07_19 #77.csv | 10/7/2019 | 2:34:27 PM | #77 | Soil | 39.19 | 39.69 | 78.89 | | | | | | | ND | | 3127 | 185 | 264 | | 43 | 11260 | 111 | 4381 | 57 | 1235 | 17 | 36.3 | 1.8 | 26 | 3 |
| Res_543158_10_07_19 #78.csv | 10/7/2019 | 2:40:41 PM | #78 | Soil | 30.89 | | 30.89 | | | | | | | | | | | | | | | | | 1263 | | 79 | 224 | 43 | ND | |
| Res_543158_10_07_19 #79.csv | 10/7/2019 | 2:40:48 PM | #79 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #8.csv | 10/7/2019 | 8:56:15 AM | #8 | Soil | 39.5 | 7.93 | 47.43 | | | | | | | ND | | 1867 | 400 | ND | | 10762 | 294 | ND | | 540 | | 29 | 23 | 4 | 32 | 8 |
| Res_543158_10_07_19 #80.csv | 10/7/2019 | 2:41:27 PM | #80 | Soil | 30.96 | | 30.96 | | | | | | | | | | | | | | | | | 2773 | | 146 | 391 | 73 | 89 | 27 |
| Res_543158_10_07_19 #81.csv | 10/7/2019 | 2:43:00 PM | #81 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #82.csv | 10/7/2019 | 2:43:20 PM | #82 | Soil | 12.17 | | 12.17 | | | | | | | | | | | | | | | | | 2828 | | 169 | 360 | 84 | ND | |
| Res_543158_10_07_19 #83.csv | 10/7/2019 | 2:43:55 PM | #83 | Soil | 30.51 | | 30.51 | | | | | | | | | | | | | | | | | 2918 | | 108 | 335 | 53 | 77 | 18 |
| Res_543158_10_07_19 #84.csv | 10/7/2019 | 3:14:53 PM | #84 | Soil | 30.51 | | 30.51 | | | | | | | | | | | | | | | | | 3225 | | 107 | 348 | 51 | 54 | 17 |
| Res_543158_10_07_19 #85.csv | 10/7/2019 | 3:15:39 PM | #85 | Soil | 30.9 | | 30.9 | | | | | | | | | | | | | | | | | 3271 | | 110 | 313 | 53 | 66 | 18 |
| Res_543158_10_07_19 #86.csv | 10/7/2019 | 3:16:27 PM | #86 | Soil | 30.83 | | 30.83 | | | | | | | | | | | | | | | | | 4997 | | 126 | 293 | 55 | ND | |
| Res_543158_10_07_19 #87.csv | 10/7/2019 | 3:33:49 PM | #87 | Soil | 29.51 | | 29.51 | | | | | | | | | | | | | | | | | 3148 | | 110 | 287 | 52 | ND | |
| Res_543158_10_07_19 #88.csv | 10/7/2019 | 3:34:31 PM | #88 | Soil | 29.94 | | 29.94 | | | | | | | | | | | | | | | | | 3080 | | 108 | 213 | 51 | ND | |
| Res_543158_10_07_19 #89.csv | 10/7/2019 | 3:48:51 PM | #89 | Soil | 34.43 | | 34.43 | | | | | | | | | | | | | | | | | 3690 | | 70 | ND | ND | | |
| Res_543158_10_07_19 #9.csv | 10/7/2019 | 8:56:43 AM | #9 | Soil | 12.21 | | 12.21 | | | | | | | | | | | | | | | | | 568 | | 109 | ND | ND | | |
| Res_543158_10_07_19 #90.csv | 10/7/2019 | 3:50:17 PM | #90 | Soil | 39.23 | 39.2 | 78.42 | | | | | | | ND | | 1074 | 72 | 213 | | 22 | 1522 | 22 | 532 | 13 | 3171 | 18 | 13.6 | 1.3 | 26.5 | 1.5 |
| Res_543158_10_07_19 #91.csv | 10/7/2019 | 3:53:12 PM | #91 | Soil | 39.63 | 39.76 | 79.4 | | | | | | | ND | | 616 | 101 | 303 | | 40 | 1619 | 39 | 1686 | 31 | 2826 | 25 | 15.5 | 1.9 | 23 | 2 |
| Res_543158_10_07_19 #92.csv | 10/7/2019 | 3:57:14 PM | #92 | Soil | 39.53 | 39.72 | 79.25 | | | | | | | ND | | 914 | 178 | 219 | | 57 | 9611 | 118 | 14849 | 135 | 2956 | 32 | 69 | 3 | 26 | 4 |
| Res_543158_10_07_19 #93.csv | 10/7/2019 | 4:03:41 PM | #93 | Soil | 39.36 | 39.69 | 79.05 | | | | | | | ND | | 671 | 153 | 197 | | 51 | 6590 | 88 | 10976 | 102 | 3115 | 31 | 59 | 3 | 14 | 4 |
| Res_543158_10_07_19 #94.csv | 10/7/2019 | 4:09:24 PM | #94 | Soil | 39.43 | 39.72 | 79.15 | | | | | | | ND | | 803 | 157 | ND | | 5618 | | 85 | 4292 | 64 | 2597 | 29 | 49 | 3 | 12 | 4 |
| Res_543158_10_07_19 #95.csv | 10/7/2019 | 4:13:34 PM | #95 | Soil | 39.41 | | 39.41 | | | | | | | | | | | | | | | | | 3609 | | 101 | 153 | 45 | ND | |
| Res_543158_10_07_19 #96.csv | 10/7/2019 | 4:15:11 PM | #96 | Soil | 39.36 | 39.69 | 79.05 | | | | | | | ND | | 861 | 169 | 224 | | 53 | 8506 | 102 | 22184 | 169 | 2931 | 30 | 71 | 3 | 16 | 4 |
| Res_543158_10_07_19 #97.csv | 10/7/2019 | 4:15:56 PM | #97 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #98.csv | 10/7/2019 | 4:17:26 PM | #98 | Soil | 39.33 | 39.68 | 79.01 | | | | | | | ND | | 605 | 164 | 299 | | 54 | 8722 | 104 | 22576 | 172 | 2983 | 30 | 76 | 3 | 16 | 4 |
| Res_543158_10_07_19 #99.csv | 10/7/2019 | 4:23:16 PM | #99 | Soil | 39.42 | 39.73 | 79.15 | | | | | | | ND | | 545 | 148 | 160 | | 48 | 7428 | 94 | 14613 | 124 | 2228 | 25 | 57 | 2 | 26 | 4 |
| Res_543158_10_08_19 #1.csv | 10/8/2019 | 7:22:48 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #10.csv | 10/8/2019 | 9:01:20 AM | #10 | Soil | 39.19 | 39.79 | 78.98 | | | | | | | ND | | 1321 | 155 | ND | | 10031 | 113 | 5431 | | 68 | 1925 | 23 | 52 | 2 | 17 | 3 |
| Res_543158_10_08_19 #11.csv | 10/8/2019 | 9:05:55 AM | #11 | Soil | 30.91 | | 30.91 | | | | | | | | | | | | | | | | | 2448 | | 102 | 225 | 50 | ND | |
| Res_543158_10_08_19 #12.csv | 10/8/2019 | 9:09:33 AM | #12 | Soil | 31.45 | | 31.45 | | | | | | | | | | | | | | | | | 2708 | | 101 | 210 | 48 | 57 | 17 |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_08_19 #13.csv | 10/8/2019 | 9:11:11 AM | #13 | Soil | 39.53 | 39.72 | 79.25 | | | | | | | ND | | 980 | 177 | ND | | 9294 | 115 | 11975 | 117 | 3222 | 34 | 73 | 3 | 39 | 4 |
| Res_543158_10_08_19 #14.csv | 10/8/2019 | 9:13:59 AM | #14 | Soil | 39.5 | 39.72 | 79.22 | | | | | | | ND | | 1138 | 182 | 181 | 57 | 10696 | 126 | 11527 | 115 | 3211 | 34 | 74 | 3 | 49 | 4 |
| Res_543158_10_08_19 #15.csv | 10/8/2019 | 9:17:19 AM | #15 | Soil | 39.49 | 39.68 | 79.17 | | | | | | | ND | | 1485 | 188 | ND | | 10406 | 120 | 12571 | 118 | 3531 | 35 | 81 | 3 | 39 | 4 |
| Res_543158_10_08_19 #16.csv | 10/8/2019 | 9:19:44 AM | #16 | Soil | 39.4 | 39.66 | 79.06 | | | | | | | ND | | 842 | 166 | ND | | 10011 | 113 | 12992 | 116 | 3338 | 33 | 69 | 3 | 24 | 4 |
| Res_543158_10_08_19 #17.csv | 10/8/2019 | 9:23:23 AM | #17 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #18.csv | 10/8/2019 | 9:24:03 AM | #18 | Soil | 31.05 | | 31.05 | | | | | | | | | | | | | | | | | 3178 | 107 | 283 | 50 | 60 | 17 |
| Res_543158_10_08_19 #19.csv | 10/8/2019 | 9:36:21 AM | #19 | Soil | 30.45 | | 30.45 | | | | | | | | | | | | | | | | | 3751 | 125 | 244 | 57 | 69 | 19 |
| Res_543158_10_08_19 #2.csv | 10/8/2019 | 8:07:31 AM | #2 | Soil | 31.28 | | 31.28 | | | | | | | | | | | | | | | | | 2820 | 105 | 249 | 51 | ND | |
| Res_543158_10_08_19 #20.csv | 10/8/2019 | 9:38:09 AM | #20 | Soil | 39.39 | 39.7 | 79.09 | | | | | | | ND | | 731 | 148 | ND | | 9496 | 107 | 8536 | 87 | 2638 | 27 | 59 | 3 | 24 | 4 |
| Res_543158_10_08_19 #21.csv | 10/8/2019 | 9:41:45 AM | #21 | Soil | 39.34 | 39.69 | 79.03 | | | | | | | ND | | 422 | 133 | ND | | 8998 | 100 | 8101 | 81 | 2718 | 27 | 63 | 2 | 16 | 3 |
| Res_543158_10_08_19 #22.csv | 10/8/2019 | 9:43:10 AM | #22 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #23.csv | 10/8/2019 | 9:44:37 AM | #23 | Soil | 39.39 | 39.71 | 79.1 | | | | | | | ND | | ND | | ND | | 7406 | 93 | 8172 | 84 | 2794 | 28 | 71 | 3 | 26 | 4 |
| Res_543158_10_08_19 #24.csv | 10/8/2019 | 9:48:12 AM | #24 | Soil | 39.4 | 39.68 | 79.08 | | | | | | | ND | | ND | | 270 | 42 | 4779 | 67 | 4694 | 57 | 1829 | 20 | 48 | 2 | 44 | 3 |
| Res_543158_10_08_19 #25.csv | 10/8/2019 | 9:53:04 AM | #25 | Soil | 39.37 | 39.68 | 79.05 | | | | | | | ND | | 1070 | 175 | ND | | 8386 | 100 | 24703 | 182 | 3131 | 31 | 66 | 3 | 22 | 4 |
| Res_543158_10_08_19 #26.csv | 10/8/2019 | 9:56:31 AM | #26 | Soil | 39.36 | 39.71 | 79.06 | | | | | | | ND | | ND | | 208 | 50 | 8357 | 99 | 18445 | 144 | 2850 | 29 | 60 | 3 | 12 | 3 |
| Res_543158_10_08_19 #27.csv | 10/8/2019 | 9:59:10 AM | #27 | Soil | 39.31 | 39.65 | 78.97 | | | | | | | ND | | 792 | 150 | ND | | 10436 | 110 | 10977 | 99 | 3047 | 29 | 68 | 3 | 14 | 3 |
| Res_543158_10_08_19 #28.csv | 10/8/2019 | 10:01:35 AM | #28 | Soil | 39.32 | 39.72 | 79.04 | | | | | | | ND | | 615 | 145 | ND | | 8029 | 96 | 11605 | 104 | 2571 | 27 | 64 | 3 | 15 | 3 |
| Res_543158_10_08_19 #29.csv | 10/8/2019 | 10:04:27 AM | #29 | Soil | 39.45 | 39.74 | 79.19 | | | | | | | ND | | 733 | 171 | ND | | 10745 | 128 | 10644 | 110 | 3037 | 33 | 71 | 3 | 43 | 4 |
| Res_543158_10_08_19 #3.csv | 10/8/2019 | 8:21:14 AM | #3 | Soil | 30.25 | | 30.25 | | | | | | | | | | | | | | | | | 4160 | 120 | 290 | 54 | 73 | 18 |
| Res_543158_10_08_19 #30.csv | 10/8/2019 | 10:08:04 AM | #30 | Soil | 39.37 | 39.73 | 79.09 | | | | | | | ND | | 757 | 143 | ND | | 8765 | 101 | 6770 | 75 | 2379 | 25 | 54 | 2 | 33 | 4 |
| Res_543158_10_08_19 #31.csv | 10/8/2019 | 12:46:14 PM | #31 | Soil | 31.56 | | 31.56 | | | | | | | | | | | | | | | | | 1938 | 125 | 251 | 66 | ND | |
| Res_543158_10_08_19 #32.csv | 10/8/2019 | 12:47:19 PM | #32 | Soil | 31.11 | | 31.11 | | | | | | | | | | | | | | | | | 1528 | 102 | 219 | 55 | 63 | 20 |
| Res_543158_10_08_19 #33.csv | 10/8/2019 | 12:48:15 PM | #33 | Soil | 30.88 | | 30.88 | | | | | | | | | | | | | | | | | 1526 | 93 | 270 | 50 | ND | |
| Res_543158_10_08_19 #34.csv | 10/8/2019 | 12:49:06 PM | #34 | Soil | 30.92 | | 30.92 | | | | | | | | | | | | | | | | | 512 | 70 | ND | | ND | |
| Res_543158_10_08_19 #35.csv | 10/8/2019 | 1:05:48 PM | #35 | Soil | 30.31 | | 30.31 | | | | | | | | | | | | | | | | | 3222 | 126 | 279 | 60 | 84 | 21 |
| Res_543158_10_08_19 #36.csv | 10/8/2019 | 1:06:31 PM | #36 | Soil | 31.51 | | 31.51 | | | | | | | | | | | | | | | | | 4017 | 137 | 264 | 63 | ND | |
| Res_543158_10_08_19 #37.csv | 10/8/2019 | 1:07:29 PM | #37 | Soil | 31.06 | | 31.06 | | | | | | | | | | | | | | | | | 3519 | 124 | 252 | 57 | ND | |
| Res_543158_10_08_19 #38.csv | 10/8/2019 | 1:07:38 PM | #38 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #39.csv | 10/8/2019 | 1:08:15 PM | #39 | Soil | 30.55 | | 30.55 | | | | | | | | | | | | | | | | | 2537 | 108 | 166 | 52 | ND | |
| Res_543158_10_08_19 #4.csv | 10/8/2019 | 8:22:53 AM | #4 | Soil | 39.43 | 39.72 | 79.15 | | | | | | | ND | | 752 | 172 | 214 | 56 | 8559 | 109 | 14403 | 131 | 3173 | 33 | 69 | 3 | 18 | 4 |
| Res_543158_10_08_19 #40.csv | 10/8/2019 | 1:08:55 PM | #40 | Soil | 30.56 | | 30.56 | | | | | | | | | | | | | | | | | 3126 | 110 | 392 | 54 | 82 | 18 |
| Res_543158_10_08_19 #41.csv | 10/8/2019 | 1:09:35 PM | #41 | Soil | 30.51 | | 30.51 | | | | | | | | | | | | | | | | | 3128 | 113 | 330 | 55 | 60 | 18 |
| Res_543158_10_08_19 #42.csv | 10/8/2019 | 1:10:18 PM | #42 | Soil | 30.47 | | 30.47 | | | | | | | | | | | | | | | | | 3236 | 121 | ND | | ND | |
| Res_543158_10_08_19 #43.csv | 10/8/2019 | 1:11:08 PM | #43 | Soil | 30.48 | | 30.48 | | | | | | | | | | | | | | | | | 1425 | 93 | 281 | 52 | ND | |
| Res_543158_10_08_19 #44.csv | 10/8/2019 | 1:11:58 PM | #44 | Soil | 30.99 | | 30.99 | | | | | | | | | | | | | | | | | 2900 | 100 | 301 | 48 | ND | |
| Res_543158_10_08_19 #45.csv | 10/8/2019 | 1:15:09 PM | #45 | Soil | 30.46 | | 30.46 | | | | | | | | | | | | | | | | | 3373 | 121 | 261 | 57 | ND | |
| Res_543158_10_08_19 #46.csv | 10/8/2019 | 1:15:58 PM | #46 | Soil | 30.42 | | 30.42 | | | | | | | | | | | | | | | | | 3565 | 115 | 360 | 55 | ND | |
| Res_543158_10_08_19 #47.csv | 10/8/2019 | 2:30:17 PM | #47 | Soil | 30.77 | | 30.77 | | | | | | | | | | | | | | | | | 3000 | 113 | 319 | 55 | ND | |
| Res_543158_10_08_19 #48.csv | 10/8/2019 | 2:31:03 PM | #48 | Soil | 30.56 | | 30.56 | | | | | | | | | | | | | | | | | 2440 | 113 | 166 | 54 | ND | |
| Res_543158_10_08_19 #49.csv | 10/8/2019 | 2:31:54 PM | #49 | Soil | 31.52 | | 31.52 | | | | | | | | | | | | | | | | | 3039 | 126 | 275 | 60 | 72 | 21 |
| Res_543158_10_08_19 #5.csv | 10/8/2019 | 8:27:37 AM | #5 | Soil | 30.92 | | 30.92 | | | | | | | | | | | | | | | | | 3442 | 116 | 230 | 54 | 57 | 18 |
| Res_543158_10_08_19 #51.csv | 10/8/2019 | 2:32:58 PM | #51 | Soil | 31.47 | | 31.47 | | | | | | | | | | | | | | | | | 3351 | 119 | 305 | 56 | 65 | 19 |
| Res_543158_10_08_19 #52.csv | 10/8/2019 | 3:19:09 PM | #52 | Soil | 30.12 | | 30.12 | | | | | | | | | | | | | | | | | 3290 | 115 | 298 | 54 | 81 | 19 |
| Res_543158_10_08_19 #53.csv | 10/8/2019 | 3:19:18 PM | #53 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #54.csv | 10/8/2019 | 3:19:56 PM | #54 | Soil | 30.1 | | 30.1 | | | | | | | | | | | | | | | | | 3183 | 128 | 324 | 62 | ND | |
| Res_543158_10_08_19 #55.csv | 10/8/2019 | 3:20:38 PM | #55 | Soil | 29.85 | | 29.85 | | | | | | | | | | | | | | | | | 4265 | 140 | 574 | 67 | ND | |
| Res_543158_10_08_19 #56.csv | 10/8/2019 | 3:21:46 PM | #56 | Soil | 33.57 | | 33.57 | | | | | | | | | | | | | | | | | 3652 | 108 | 261 | 50 | ND | |
| Res_543158_10_08_19 #57.csv | 10/8/2019 | 3:22:25 PM | #57 | Soil | 29.9 | | 29.9 | | | | | | | | | | | | | | | | | 2642 | 95 | 161 | 45 | ND | |
| Res_543158_10_08_19 #58.csv | 10/8/2019 | 3:23:15 PM | #58 | Soil | 30.81 | | 30.81 | | | | | | | | | | | | | | | | | 3503 | 109 | 318 | 51 | 67 | 17 |
| Res_543158_10_08_19 #59.csv | 10/8/2019 | 3:23:54 PM | #59 | Soil | 30.49 | | 30.49 | | | | | | | | | | | | | | | | | 3224 | 104 | 260 | 49 | 57 | 16 |
| Res_543158_10_08_19 #6.csv | 10/8/2019 | 8:35:14 AM | #6 | Soil | 39.47 | 39.72 | 79.19 | | | | | | | ND | | 659 | 164 | 253 | 56 | 7817 | 104 | 10431 | 106 | 2709 | 30 | 63 | 3 | 30 | 4 |
| Res_543158_10_08_19 #60.csv | 10/8/2019 | 3:24:51 PM | #60 | Soil | 30.84 | | 30.84 | | | | | | | | | | | | | | | | | 2639 | 100 | 291 | 49 | ND | |
| Res_543158_10_08_19 #61.csv | 10/8/2019 | 3:25:38 PM | #61 | Soil | 30.47 | | 30.47 | | | | | | | | | | | | | | | | | 3281 | 129 | 317 | 61 | ND | |
| Res_543158_10_08_19 #62.csv | 10/8/2019 | 3:26:45 PM | #62 | Soil | 30.21 | | 30.21 | | | | | | | | | | | | | | | | | 1900 | 87 | ND | | ND | |
| Res_543158_10_08_19 #63.csv | 10/8/2019 | 3:27:43 PM | #63 | Soil | 30.81 | | 30.81 | | | | | | | | | | | | | | | | | 2446 | 94 | 461 | 50 | 103 | 17 |
| Res_543158_10_08_19 #64.csv | 10/8/2019 | 4:29:46 PM | #64 | Soil | 31.21 | | 31.21 | | | | | | | | | | | | | | | | | 1831 | 82 | 161 | 42 | ND | |
| Res_543158_10_08_19 #65.csv | 10/8/2019 | 4:30:39 PM | #65 | Soil | 30.97 | | 30.97 | | | | | | | | | | | | | | | | | 716 | 68 | 145 | 40 | ND | |
| Res_543158_10_08_19 #7.csv | 10/8/2019 | 8:38:01 AM | #7 | Soil | 30.85 | | 30.85 | | | | | | | | | | | | | | | | | 2594 | 98 | 221 | 47 | ND | |
| Res_543158_10_08_19 #8.csv | 10/8/2019 | 8:47:02 AM | #8 | Soil | 39.46 | 39.75 | 79.21 | | | | | | | ND | | 856 | 169 | ND | | 8713 | 112 | 8178 | 93 | 2712 | 31 | 67 | 3 | 13 | 4 |
| Res_543158_10_08_19 #9.csv | 10/8/2019 | 8:49:50 AM | #9 | Soil | 31.48 | | 31.48 | | | | | | | | | | | | | | | | | 2659 | 95 | 274 | 46 | ND | |
| Res_543158_10_09_19 #1.csv | 10/9/2019 | 7:53:45 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #10.csv | 10/9/2019 | 10:23:08 AM | #10 | Soil | 29.63 | | 29.63 | | | | | | | | | | | | | | | | | 1982 | 99 | ND | | ND | |
| Res_543158_10_09_19 #11.csv | 10/9/2019 | 10:23:56 AM | #11 | Soil | 30.36 | | 30.36 | | | | | | | | | | | | | | | | | 2922 | 106 | 265 | 51 | ND | |
| Res_543158_10_09_19 #12.csv | 10/9/2019 | 10:24:02 AM | #12 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #13.csv | 10/9/2019 | 10:24:39 AM | #13 | Soil | 30.43 | | 30.43 | | | | | | | | | | | | | | | | | 3025 | 114 | 218 | 54 | ND | |
| Res_543158_10_09_19 #14.csv | 10/9/2019 | 10:37:03 AM | #14 | Soil | 30.47 | | 30.47 | | | | | | | | | | | | | | | | | 2580 | 103 | 175 | 49 | ND | |
| Res_543158_10_09_19 #15.csv | 10/9/2019 | 10:37:42 AM | #15 | Soil | 30.35 | | 30.35 | | | | | | | | | | | | | | | | | 2888 | 104 | 174 | 49 | ND | |
| Res_543158_10_09_19 #16.csv | 10/9/2019 | 10:38:18 AM | #16 | Soil | 30.08 | | 30.08 | | | | | | | | | | | | | | | | | 1666 | 100 | ND | | ND | |
| Res_543158_10_09_19 #17.csv | 10/9/2019 | 10:39:06 AM | #17 | Soil | 30.04 | | 30.04 | | | | | | | | | | | | | | | | | 1707 | 106 | ND | | ND | |
| Res_543158_10_09_19 #18.csv | 10/9/2019 | 10:39:43 AM | #18 | Soil | 30.24 | | 30.24 | | | | | | | | | | | | | | | | | 2069 | 136 | ND | | ND | |
| Res_543158_10_09_19 #19.csv | 10/9/2019 | 10:40:24 AM | #19 | Soil | 30.44 | | 30.44 | | | | | | | | | | | | | | | | | 2125 | 89 | 151 | 44 | ND | |

| Source.Name | Date | Time | Reading | Mode | Elapsed Time 1 | Elapsed Time 2 | Elapsed Time Total | Mg | Mg +/ | Al | Al +/ | Si | Si +/ | P | P +/ | S | S +/ | Cl | Cl +/ | K | K +/ | Ca | Ca +/ | Ti | Ti +/ | V | V +/ | Cr | Cr +/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_09_19 #2.csv | 10/9/2019 | 8:36:54 AM | #2 | Soil | 30.19 | | 30.19 | | | | | | | | | | | | | | | | | 3346 | 118 | 227 | 55 | ND | | |
| Res_543158_10_09_19 #20.csv | 10/9/2019 | 10:41:04 AM | #20 | Soil | 31.05 | | 31.05 | | | | | | | | | | | | | | | | | 2099 | 100 | 211 | 50 | 62 | | 18 |
| Res_543158_10_09_19 #21.csv | 10/9/2019 | 10:43:51 AM | #21 | Soil | 30.33 | | 30.33 | | | | | | | | | | | | | | | | | 1202 | 70 | ND | | ND | | |
| Res_543158_10_09_19 #22.csv | 10/9/2019 | 10:46:04 AM | #22 | Soil | 30.34 | | 30.34 | | | | | | | | | | | | | | | | | 2456 | 84 | 277 | 42 | ND | | |
| Res_543158_10_09_19 #23.csv | 10/9/2019 | 10:46:46 AM | #23 | Soil | 30.26 | | 30.26 | | | | | | | | | | | | | | | | | 2993 | 103 | 441 | 51 | ND | | |
| Res_543158_10_09_19 #24.csv | 10/9/2019 | 10:46:55 AM | #24 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #25.csv | 10/9/2019 | 10:47:32 AM | #25 | Soil | 29.92 | | 29.92 | | | | | | | | | | | | | | | | | 3251 | 131 | 267 | 62 | ND | | |
| Res_543158_10_09_19 #26.csv | 10/9/2019 | 12:03:29 PM | #26 | Soil | 30.67 | | 30.67 | | | | | | | | | | | | | | | | | 3237 | 117 | 220 | 55 | ND | | |
| Res_543158_10_09_19 #27.csv | 10/9/2019 | 12:36:49 PM | #27 | Soil | 31.47 | | 31.47 | | | | | | | | | | | | | | | | | 2935 | 122 | 301 | 60 | 77 | | 21 |
| Res_543158_10_09_19 #28.csv | 10/9/2019 | 12:37:29 PM | #28 | Soil | 30.95 | | 30.95 | | | | | | | | | | | | | | | | | 3065 | 111 | 195 | 51 | 53 | | 18 |
| Res_543158_10_09_19 #29.csv | 10/9/2019 | 12:38:13 PM | #29 | Soil | 30.64 | | 30.64 | | | | | | | | | | | | | | | | | 3400 | 91 | 339 | 43 | 48 | | 14 |
| Res_543158_10_09_19 #3.csv | 10/9/2019 | 8:37:31 AM | #3 | Soil | 29.1 | | 29.1 | | | | | | | | | | | | | | | | | 3038 | 119 | ND | | ND | | |
| Res_543158_10_09_19 #30.csv | 10/9/2019 | 2:42:59 PM | #30 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #31.csv | 10/9/2019 | 2:43:37 PM | #31 | Soil | 30.64 | | 30.64 | | | | | | | | | | | | | | | | | 713 | 75 | ND | | ND | | |
| Res_543158_10_09_19 #32.csv | 10/9/2019 | 2:44:17 PM | #32 | Soil | 30.96 | | 30.96 | | | | | | | | | | | | | | | | | 522 | 63 | ND | | ND | | |
| Res_543158_10_09_19 #33.csv | 10/9/2019 | 2:44:58 PM | #33 | Soil | 30.45 | | 30.45 | | | | | | | | | | | | | | | | | 943 | 70 | 176 | 39 | ND | | |
| Res_543158_10_09_19 #34.csv | 10/9/2019 | 2:45:38 PM | #34 | Soil | 30.6 | | 30.6 | | | | | | | | | | | | | | | | | 812 | 69 | 218 | 40 | ND | | |
| Res_543158_10_09_19 #35.csv | 10/9/2019 | 2:46:23 PM | #35 | Soil | 31.04 | | 31.04 | | | | | | | | | | | | | | | | | 1116 | 80 | ND | | ND | | |
| Res_543158_10_09_19 #36.csv | 10/9/2019 | 2:50:06 PM | #36 | Soil | 29.99 | | 29.99 | | | | | | | | | | | | | | | | | 2759 | 54 | ND | | ND | | |
| Res_543158_10_09_19 #37.csv | 10/9/2019 | 2:51:28 PM | #37 | Soil | 30.47 | | 30.47 | | | | | | | | | | | | | | | | | 3046 | 114 | 406 | 57 | ND | | |
| Res_543158_10_09_19 #38.csv | 10/9/2019 | 2:55:04 PM | #38 | Soil | 31.1 | | 31.1 | | | | | | | | | | | | | | | | | 851 | 76 | ND | | ND | | |
| Res_543158_10_09_19 #39.csv | 10/9/2019 | 2:55:57 PM | #39 | Soil | 30.98 | | 30.98 | | | | | | | | | | | | | | | | | 828 | 70 | 130 | 40 | ND | | |
| Res_543158_10_09_19 #4.csv | 10/9/2019 | 8:38:11 AM | #4 | Soil | 30.37 | | 30.37 | | | | | | | | | | | | | | | | | 3106 | 103 | 250 | 48 | ND | | |
| Res_543158_10_09_19 #40.csv | 10/9/2019 | 2:57:19 PM | #40 | Soil | 30.62 | | 30.62 | | | | | | | | | | | | | | | | | 1999 | 106 | 182 | 54 | ND | | |
| Res_543158_10_09_19 #41.csv | 10/9/2019 | 2:58:34 PM | #41 | Soil | 30.83 | | 30.83 | | | | | | | | | | | | | | | | | 3003 | 105 | 227 | 49 | 51 | | 17 |
| Res_543158_10_09_19 #42.csv | 10/9/2019 | 2:59:08 PM | #42 | Soil | 30.58 | | 30.58 | | | | | | | | | | | | | | | | | 720 | 66 | 119 | 38 | ND | | |
| Res_543158_10_09_19 #43.csv | 10/9/2019 | 2:59:46 PM | #43 | Soil | 30.06 | | 30.06 | | | | | | | | | | | | | | | | | 592 | 65 | 218 | 40 | ND | | |
| Res_543158_10_09_19 #44.csv | 10/9/2019 | 3:00:31 PM | #44 | Soil | 30.69 | | 30.69 | | | | | | | | | | | | | | | | | 474 | 76 | ND | | ND | | |
| Res_543158_10_09_19 #45.csv | 10/9/2019 | 3:02:43 PM | #45 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #46.csv | 10/9/2019 | 3:03:19 PM | #46 | Soil | 31.06 | | 31.06 | | | | | | | | | | | | | | | | | 3219 | 113 | 174 | 52 | ND | | |
| Res_543158_10_09_19 #47.csv | 10/9/2019 | 3:04:18 PM | #47 | Soil | 30.52 | | 30.52 | | | | | | | | | | | | | | | | | 1836 | 103 | ND | | 61 | | 19 |
| Res_543158_10_09_19 #48.csv | 10/9/2019 | 3:05:29 PM | #48 | Soil | 30.52 | | 30.52 | | | | | | | | | | | | | | | | | 1378 | 90 | ND | | ND | | |
| Res_543158_10_09_19 #5.csv | 10/9/2019 | 8:38:52 AM | #5 | Soil | 29.98 | | 29.98 | | | | | | | | | | | | | | | | | 1917 | 92 | 272 | 48 | ND | | |
| Res_543158_10_09_19 #50.csv | 10/9/2019 | 3:07:48 PM | #50 | Soil | 31.14 | | 31.14 | | | | | | | | | | | | | | | | | 2362 | 129 | 240 | 64 | ND | | |
| Res_543158_10_09_19 #51.csv | 10/9/2019 | 3:32:25 PM | #51 | Soil | 29.95 | | 29.95 | | | | | | | | | | | | | | | | | 3240 | 119 | 258 | 56 | 63 | | 19 |
| Res_543158_10_09_19 #52.csv | 10/9/2019 | 3:33:21 PM | #52 | Soil | 29.9 | | 29.9 | | | | | | | | | | | | | | | | | 3413 | 124 | 452 | 61 | 77 | | 20 |
| Res_543158_10_09_19 #53.csv | 10/9/2019 | 3:34:15 PM | #53 | Soil | 30.5 | | 30.5 | | | | | | | | | | | | | | | | | 2557 | 125 | 343 | 63 | ND | | |
| Res_543158_10_09_19 #54.csv | 10/9/2019 | 3:34:56 PM | #54 | Soil | 30.62 | | 30.62 | | | | | | | | | | | | | | | | | 3537 | 126 | 252 | 59 | ND | | |
| Res_543158_10_09_19 #55.csv | 10/9/2019 | 3:35:39 PM | #55 | Soil | 30.32 | | 30.32 | | | | | | | | | | | | | | | | | 3565 | 116 | 260 | 53 | ND | | |
| Res_543158_10_09_19 #56.csv | 10/9/2019 | 4:00:38 PM | #56 | Soil | 30.33 | | 30.33 | | | | | | | | | | | | | | | | | 3396 | 109 | 315 | 51 | 74 | | 17 |
| Res_543158_10_09_19 #57.csv | 10/9/2019 | 4:03:21 PM | #57 | Soil | 6.21 | | 6.21 | | | | | | | | | | | | | | | | | 790 | 156 | ND | | ND | | |
| Res_543158_10_09_19 #58.csv | 10/9/2019 | 4:03:58 PM | #58 | Soil | 29.89 | | 29.89 | | | | | | | | | | | | | | | | | 1006 | 75 | 158 | 42 | ND | | |
| Res_543158_10_09_19 #59.csv | 10/9/2019 | 4:06:57 PM | #59 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #6.csv | 10/9/2019 | 8:39:27 AM | #6 | Soil | 29.98 | | 29.98 | | | | | | | | | | | | | | | | | 2795 | 108 | 247 | 52 | ND | | |
| Res_543158_10_09_19 #60.csv | 10/9/2019 | 4:07:33 PM | #60 | Soil | 31.08 | | 31.08 | | | | | | | | | | | | | | | | | 768 | 77 | 228 | 46 | 52 | | 17 |
| Res_543158_10_09_19 #61.csv | 10/9/2019 | 4:31:38 PM | #61 | Soil | 30.3 | | 30.3 | | | | | | | | | | | | | | | | | 967 | 71 | 186 | 40 | ND | | |
| Res_543158_10_09_19 #62.csv | 10/9/2019 | 4:31:48 PM | #62 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #63.csv | 10/9/2019 | 4:31:56 PM | #63 | Soil | 3.01 | | 3.01 | | | | | | | | | | | | | | | | | 2746 | 326 | ND | | ND | | |
| Res_543158_10_09_19 #64.csv | 10/9/2019 | 4:32:30 PM | #64 | Soil | 30.48 | | 30.48 | | | | | | | | | | | | | | | | | 2448 | 105 | 181 | 51 | ND | | |
| Res_543158_10_09_19 #65.csv | 10/9/2019 | 4:33:08 PM | #65 | Soil | 30.45 | | 30.45 | | | | | | | | | | | | | | | | | 1893 | 90 | 282 | 47 | ND | | |
| Res_543158_10_09_19 #66.csv | 10/9/2019 | 4:34:33 PM | #66 | Soil | 30.58 | | 30.58 | | | | | | | | | | | | | | | | | 1928 | 139 | 226 | 73 | ND | | |
| Res_543158_10_09_19 #67.csv | 10/9/2019 | 4:36:14 PM | #67 | Soil | 30.93 | | 30.93 | | | | | | | | | | | | | | | | | 1090 | 77 | ND | | ND | | |
| Res_543158_10_09_19 #68.csv | 10/9/2019 | 4:37:18 PM | #68 | Soil | 30.41 | | 30.41 | | | | | | | | | | | | | | | | | 1459 | 92 | 156 | 48 | ND | | |
| Res_543158_10_09_19 #7.csv | 10/9/2019 | 10:21:21 AM | #7 | Soil | 30.13 | | 30.13 | | | | | | | | | | | | | | | | | 2219 | 90 | 141 | 43 | ND | | |
| Res_543158_10_09_19 #8.csv | 10/9/2019 | 10:21:59 AM | #8 | Soil | 29.97 | | 29.97 | | | | | | | | | | | | | | | | | 1225 | 90 | 190 | 49 | ND | | |
| Res_543158_10_09_19 #9.csv | 10/9/2019 | 10:22:28 AM | #9 | Soil | 21.42 | | 21.42 | | | | | | | | | | | | | | | | | 2341 | 124 | ND | | ND | | |
| Res_543158_10_10_19 #1.csv | 10/10/2019 | 7:44:18 AM | #1 | Cal Check | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #10.csv | 10/10/2019 | 9:10:15 AM | #10 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #11.csv | 10/10/2019 | 9:12:05 AM | #11 | Soil | 30.15 | | 30.15 | | | | | | | | | | | | | | | | | 3027 | 103 | 199 | 48 | ND | | |
| Res_543158_10_10_19 #12.csv | 10/10/2019 | 9:12:43 AM | #12 | Soil | 29.99 | | 29.99 | | | | | | | | | | | | | | | | | 2153 | 96 | 238 | 48 | ND | | |
| Res_543158_10_10_19 #2.csv | 10/10/2019 | 9:09:34 AM | #2 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #3.csv | 10/10/2019 | 9:09:42 AM | #3 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #4.csv | 10/10/2019 | 9:09:46 AM | #4 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #5.csv | 10/10/2019 | 9:09:51 AM | #5 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #6.csv | 10/10/2019 | 9:09:55 AM | #6 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #7.csv | 10/10/2019 | 9:10:03 AM | #7 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #8.csv | 10/10/2019 | 9:10:08 AM | #8 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #9.csv | 10/10/2019 | 9:10:12 AM | #9 | Analysis Results | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Source.Name | Date | Time | Reading | Mn | Mn +/- | Fe | Fe +/- | Co | Co +/- | Ni | Ni +/- | Cu | Cu +/- | Zn | Zn +/- | Se | Se +/- | Br | Br +/- | Rb | Rb +/- | Sr | Sr +/- | Y | Y +/- | Zr | Zr +/- | Nb | Nb +/- | Mo | Mo +/- | Pd | Pd +/- | Ag | Ag +/- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_04_19 #1.csv | 9/4/2019 | 7:00:46 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19 #1.csv | 9/5/2019 | 1:38:26 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19 #2.csv | 9/5/2019 | 1:39:26 PM | #2 | 64 | | 7 | 47 | 13 | ND | | ND | | 18 | 5 | 158 | 7 | ND | | | | ND | 11.0 | | 1.8 | ND | | ND | 6.9 | | 2 | ND | | | | ND | |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:38:26 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:39:26 PM | #2 | 64 | | 7 | 47 | 13 | ND | | ND | | 18 | 5 | 158 | 7 | ND | | | | ND | 11.0 | | 1.8 | ND | | ND | 6.9 | | 2 | ND | | | | ND | |
| Res_543158_09_10_19 #1.csv | 9/10/2019 | 1:12:49 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #2.csv | 9/10/2019 | 1:16:22 PM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #3.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #5.csv | 9/10/2019 | 1:17:37 PM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #6.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #7.csv | 9/10/2019 | 1:18:19 PM | #7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #8.csv | 9/10/2019 | 1:20:07 PM | #8 | 56 | | 3 | 66 | 7 | ND | | ND | | ND | | 6.6 | 1.4 | 2.0 | | 1 | | 2.2 | 0.7 | 11.8 | 0.7 | 9.5 | 0.8 | 14.6 | 1.5 | 13.1 | 1.4 | 18.6 | 1.7 | | 72 | 6 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:12:49 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:22 PM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:37 PM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:18:19 PM | #7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:20:07 PM | #8 | 56 | | 3 | 66 | 7 | ND | | ND | | ND | | 6.6 | 1.4 | 2.0 | | 1 | | 2.2 | 0.7 | 11.8 | 0.7 | 9.5 | 0.8 | 14.6 | 1.5 | 13.1 | 1.4 | 18.6 | 1.7 | | 72 | 6 |
| Res_543158_09_12_19 #10.csv | 9/12/2019 | 8:25:56 AM | #10 | 6708 | | 416 | 26213 | 989 | ND | | ND | | 208154 | 6248 | 16341 | 568 | 67 | | 8 | | ND | ND | | ND | | ND | | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #101.csv | 9/12/2019 | 1:53:37 PM | #101 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #102.csv | 9/12/2019 | 1:53:40 PM | #102 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #103.csv | 9/12/2019 | 1:54:13 PM | #103 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #104.csv | 9/12/2019 | 1:54:16 PM | #104 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #105.csv | 9/12/2019 | 1:54:41 PM | #105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #107.csv | 9/12/2019 | 1:56:15 PM | #107 | 260 | | 31 | 15009 | 210 | ND | | ND | | 32 | 7 | 89 | 7 | ND | | | | 57 | 3 | 176 | 4 | 22 | 2 | 221 | 6 | 11 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #108.csv | 9/12/2019 | 1:56:39 PM | #108 | 124 | | 26 | 15127 | 208 | ND | | 42 | | 11 19 | 6 | 72 | 6 | ND | | | | 51 | 3 | 94 | 3 | 16 | 2 | 162 | 5 | 12 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #109.csv | 9/12/2019 | 1:56:58 PM | #109 | 283 | | 28 | 18356 | 207 | ND | | 43 | | 9 24 | 5 | 77 | 6 | ND | | | | 101 | 3 | 84 | 3 | 21 | 2 | 311 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #11.csv | 9/12/2019 | 8:26:49 AM | #11 | ND | | | 443117 | 14610 | ND | | ND | | 223747 | 7345 | 3132 | 251 | ND | | | | ND | ND | | ND | | ND | | ND | | ND | | | | 212 | 53 |
| Res_543158_09_12_19 #110.csv | 9/12/2019 | 1:57:25 PM | #110 | 289 | | 26 | 18282 | 199 | ND | | ND | | 23 | 5 | 51 | 5 | ND | | | | 89 | 3 | 278 | 5 | 21.4 | 2 | 217 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #111.csv | 9/12/2019 | 1:57:47 PM | #111 | 166 | | 24 | 18035 | 206 | ND | | 27 | | 9 19 | 5 | 76 | 6 | ND | | | | 74 | 3 | 139 | 3 | 27 | 2 | 246 | 5 | 10 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #112.csv | 9/12/2019 | 1:58:27 PM | #112 | 478 | | 30 | 19596 | 198 | ND | | 43 | | 8 31 | 5 | 91 | 5 | ND | | | | 70 | 2 | 110 | 3 | 27.7 | 1.9 | 229 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #114.csv | 9/12/2019 | 1:58:57 PM | #114 | 303 | | 37 | 16780 | 255 | ND | | ND | | ND | | 87 | 8 | ND | | | | 86 | 4 | 102 | 4 | 24 | 3 | 203 | 6 | 18 | 4 | ND | | | | ND | |
| Res_543158_09_12_19 #115.csv | 9/12/2019 | 2:29:25 PM | #115 | 425 | | 28 | 19686 | 194 | ND | | 31 | | 8 19 | 4 | 76 | 5 | ND | | | | 96 | 3 | 161 | 3 | 27.3 | 1.9 | 240 | 5 | 21 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #116.csv | 9/12/2019 | 2:29:55 PM | #116 | 390 | | 31 | 18887 | 214 | ND | | ND | | 18 | 5 | 74 | 6 | ND | | | | 72 | 3 | 181 | 4 | 27 | 2 | 325 | 6 | 20 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #117.csv | 9/12/2019 | 2:30:19 PM | #117 | 364 | | 26 | 15619 | 159 | ND | | ND | | 22 | 4 | 65 | 5 | ND | | | | 58 | 2 | 164 | 3 | 35.5 | 1.9 | 319 | 5 | 26 | 2 | ND | | | | ND | |
| Res_543158_09_12_19 #118.csv | 9/12/2019 | 2:30:48 PM | #118 | 119 | | 23 | 12931 | 171 | ND | | ND | | 17 | 5 | 74 | 6 | ND | | | | 85 | 3 | 115 | 3 | 26 | 2 | 279 | 6 | 40 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #119.csv | 9/12/2019 | 3:04:32 PM | #119 | 461 | | 32 | 23170 | 244 | ND | | ND | | 17 | 5 | 75 | 5 | ND | | | | 92 | 3 | 215 | 4 | 21 | 2 | 234 | 5 | 13 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #120.csv | 9/12/2019 | 3:05:06 PM | #120 | 202 | | 31 | 19697 | 271 | ND | | ND | | 35 | 7 | 101 | 8 | ND | | | | 74 | 3 | 186 | 5 | 16 | 2 | 187 | 6 | 12 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #121.csv | 9/12/2019 | 3:05:28 PM | #121 | 126 | | 20 | 8887 | 114 | ND | | 23 | | 8 ND | | 46 | 4 | ND | | | | 72 | 2 | 189 | 4 | 17.0 | 1.8 | 260 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #122.csv | 9/12/2019 | 3:05:52 PM | #122 | 545 | | 33 | 28963 | 282 | ND | | 39 | | 9 23 | 5 | 90 | 6 | ND | | | | 90 | 3 | 272 | 5 | 22.1 | 2 | 262 | 5 | 9 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #123.csv | 9/12/2019 | 3:06:11 PM | #123 | 321 | | 31 | 27149 | 302 | ND | | 29 | | 9 20 | 5 | 89 | 6 | ND | | | | 95 | 3 | 252 | 5 | 21 | 2 | 228 | 6 | 10 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #124.csv | 9/12/2019 | 3:06:34 PM | #124 | 383 | | 35 | 27077 | 314 | ND | | 39 | | 10 28 | 6 | 82 | 6 | ND | | | | 96 | 3 | 192 | 4 | 30 | 2 | 250 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #125.csv | 9/12/2019 | 3:06:56 PM | #125 | 469 | | 33 | 24887 | 261 | ND | | 28 | | 9 26 | 5 | 70 | 5 | ND | | | | 85 | 3 | 259 | 5 | 44 | 2 | 245 | 5 | 16 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #126.csv | 9/12/2019 | 3:16:06 PM | #126 | 657 | | 42 | 24471 | 293 | ND | | 45 | | 11 21 | 6 | 92 | 7 | ND | | | | 101 | 3 | 249 | 5 | 24 | 2 | 252 | 6 | 16 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #127.csv | 9/12/2019 | 3:16:34 PM | #127 | ND | | | 18199 | 232 | ND | | 39 | | 10 24 | 6 | 124 | 8 | ND | | | | 71 | 3 | 166 | 4 | 17 | 2 | 178 | 5 | 12 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #128.csv | 9/12/2019 | 3:16:58 PM | #128 | 1490 | | 51 | 24742 | 255 | ND | | 43 | | 9 26 | 5 | 70 | 5 | ND | | | | 94 | 3 | 279 | 5 | 27 | 2 | 260 | 5 | 10 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #129.csv | 9/12/2019 | 3:20:17 PM | #129 | 313 | | 28 | 21201 | 225 | ND | | ND | | 23 | 5 | 68 | 5 | ND | | | | 92 | 3 | 260 | 5 | 23 | 2 | 251 | 5 | 11 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #13.csv | 9/12/2019 | 8:28:36 AM | #13 | 256 | | 37 | 108 | 24 | ND | | ND | | 176 | 14 | 162 | 11 | ND | | | | ND | ND | | 17 | | 3 | ND | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #130.csv | 9/12/2019 | 3:20:50 PM | #130 | 309 | | 27 | 17799 | 192 | ND | | ND | | 26 | 5 | 68 | 5 | ND | | | | 61 | 2 | 98 | 3 | 11.0 | 1.7 | 215 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #131.csv | 9/12/2019 | 3:56:36 PM | #131 | 316 | | 25 | 17279 | 176 | ND | | 29 | | 8 40 | 5 | 114 | 6 | ND | | | | 81 | 2 | 305 | 5 | 18.7 | 1.8 | 241 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #132.csv | 9/12/2019 | 3:57:07 PM | #132 | 364 | | 29 | 18521 | 200 | ND | | 56 | | 9 36 | 6 | 106 | 6 | ND | | | | 73 | 3 | 318 | 5 | 17.4 | 1.9 | 258 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #133.csv | 9/12/2019 | 3:57:33 PM | #133 | 377 | | 28 | 25299 | 240 | ND | | 33 | | 8 38 | 5 | 92 | 5 | ND | | | | 82 | 3 | 383 | 5 | 18.7 | 1.8 | 377 | 6 | 9 | 2 | ND | | | | ND | |
| Res_543158_09_12_19 #134.csv | 9/12/2019 | 3:57:54 PM | #134 | 330 | | 33 | 21769 | 264 | ND | | 45 | | 10 21 | 6 | 69 | 6 | ND | | | | 78 | 3 | 336 | 6 | 16 | 2 | 218 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #135.csv | 9/12/2019 | 3:58:15 PM | #135 | 576 | | 43 | 24962 | 317 | ND | | ND | | 28 | 7 | 83 | 7 | ND | | | | 59 | 3 | 911 | 13 | 22 | 2 | 215 | 7 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #136.csv | 9/12/2019 | 3:58:40 PM | #136 | 200 | | 35 | 16498 | 266 | ND | | ND | | ND | | 93 | 8 | ND | | | | 52 | 3 | 459 | 9 | 18 | 3 | 165 | 7 | 16 | 4 | ND | | | | ND | |
| Res_543158_09_12_19 #137.csv | 9/12/2019 | 3:59:05 PM | #137 | 271 | | 24 | 19714 | 189 | ND | | 32 | | 8 27 | 5 | 74 | 5 | ND | | | | 74 | 2 | 628 | 7 | 18.2 | 1.7 | 192 | 5 | 8 | 2 | ND | | | | ND | |
| Res_543158_09_12_19 #138.csv | 9/12/2019 | 4:09:19 PM | #138 | 263 | | 34 | 16445 | 247 | ND | | 41 | | 12 23 | 7 | 85 | 7 | ND | | | | 58 | 3 | 352 | 7 | 11 | 2 | 135 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #139.csv | 9/12/2019 | 4:09:42 PM | #139 | 383 | | 33 | 22041 | 258 | ND | | 32 | | 10 17 | 5 | 73 | 6 | ND | | | | 87 | 3 | 214 | 5 | 23 | 2 | 251 | 6 | 12 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #140.csv | 9/12/2019 | 4:10:06 PM | #140 | 226 | | 25 | 21457 | 221 | ND | | ND | | 20 | 5 | 63 | 5 | ND | | | | 82 | 3 | 156 | 3 | 35 | 2 | 310 | 6 | 16 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #141.csv | 9/12/2019 | 4:10:36 PM | #141 | 214 | | 26 | 17474 | 206 | ND | | ND | | 26 | 6 | 65 | 5 | ND | | | | 51 | 2 | 409 | 6 | 15.0 | 1.9 | 237 | 6 | 10 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #142.csv | 9/12/2019 | 4:11:03 PM | #142 | 112 | | 22 | 6834 | 113 | ND | | ND | | ND | | 49 | 5 | ND | | | | 21 | 2 | 482 | 7 | ND | | 106 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #2.csv | 9/12/2019 | 7:21:20 AM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #20.csv | 9/12/2019 | 9:51:50 AM | #20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #21.csv | 9/12/2019 | 9:52:06 AM | #21 | 356 | | 31 | 20906 | 239 | ND | | ND | | 41 | 6 | 76 | 6 | ND | | | | 106 | 3 | 313 | 5 | 20 | 2 | 294 | 6 | 16 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #22.csv | 9/12/2019 | 9:52:48 AM | #22 | 417 | | 33 | 26383 | 284 | ND | | 44 | | 10 36 | 6 | 79 | 6 | ND | | | | 106 | 3 | 365 | 6 | 17 | 2 | 429 | 7 | 11 | 3 | ND | | | | ND | |
| Res_543158_09_12_19 #23.csv | 9/12/2019 | 9:53:21 AM | #23 | 415 | | 30 | 22979 | 239 | ND | | ND | | 38 | 6 | 72 | 5 | ND | | | | 108 | 3 | 442 | 6 | 16.2 | 2 | 173 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #24.csv | 9/12/2019 | 9:53:49 AM | #24 | 519 | | 31 | 19405 | 200 | ND | | 31 | | 8 42 | 5 | 73 | 5 | ND | | | | 111 | 3 | 495 | 6 | 13.8 | 1.9 | 167 | 5 | 10 | 2 | ND | | | | ND | |
| Res_543158_09_12_19 #25.csv | 9/12/2019 | 9:53:54 AM | #25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #27.csv | 9/12/2019 | 9:54:29 AM | #27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #28.csv | 9/12/2019 | 9:54:45 AM | #28 | 449 | | 31 | 21432 | 222 | ND | | ND | | 44 | 6 | 60 | 5 | ND | | | | 131 | 3 | 453 | 6 | 11.4 | 1.9 | 170 | 5 | 10 | 3 | ND | | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #29.csv | 9/12/2019 | 9:55:12 AM | #29 | 460 | | 31 23909 | | 240 ND | | 32 | | 8 61 | | 6 70 | | 5 ND | | | | 142 | | 3 488 | | 6 13.1 | | 2 235 | | 5 12 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #3.csv | 9/12/2019 | 7:22:35 AM | #3 | ND | | 70456 | | 2590 ND | | ND | | 25421 | | 937 658 | | 91 ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #30.csv | 9/12/2019 | 9:55:39 AM | #30 | 671 | | 37 29142 | | 292 ND | | 27 | | 8 55 | | 6 242 | | 9 ND | | | | 147 | | 4 493 | | 7 14 | | 2 232 | | 5 12 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #31.csv | 9/12/2019 | 9:56:01 AM | #31 | 404 | | 32 21365 | | 236 ND | | 36 | | 9 41 | | 6 82 | | 6 ND | | | | 126 | | 4 469 | | 7 17 | | 2 205 | | 5 19 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #32.csv | 9/12/2019 | 10:31:57 AM | #32 | 929 | | 49 30424 | | 350 ND | | 46 | | 11 39 | | 7 107 | | 7 ND | | | | 96 | | 3 320 | | 6 28 | | 2 277 | | 7 20 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #33.csv | 9/12/2019 | 10:32:21 AM | #33 | 244 | | 32 15354 | | 225 ND | | ND | | ND | | 68 | | 7 ND | | | | 53 | | 3 291 | | 6 14 | | 2 200 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #34.csv | 9/12/2019 | 10:32:46 AM | #34 | 388 | | 45 19722 | | 322 ND | | ND | | ND | | 105 | | 9 ND | | | | 165 | | 6 203 | | 6 26 | | 3 108 | | 6 42 | | 5 ND | | | | ND | |
| Res_543158_09_12_19 #35.csv | 9/12/2019 | 10:33:09 AM | #35 | 470 | | 41 28286 | | 360 ND | | ND | | 27 | | 7 84 | | 7 ND | | | | 97 | | 4 453 | | 8 14 | | 2 237 | | 7 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #36.csv | 9/12/2019 | 10:33:23 AM | #36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #37.csv | 9/12/2019 | 10:33:26 AM | #37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #38.csv | 9/12/2019 | 10:33:42 AM | #38 | 949 | | 50 41032 | | 447 ND | | 36 | | 10 21 | | 6 90 | | 7 ND | | | | 54 | | 3 539 | | 8 19 | | 2 164 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #39.csv | 9/12/2019 | 10:34:08 AM | #39 | 601 | | 39 25896 | | 291 ND | | ND | | 36 | | 6 81 | | 6 ND | | | | 120 | | 4 484 | | 7 22 | | 2 192 | | 6 22 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #4.csv | 9/12/2019 | 7:22:48 AM | #4 | ND | | 308 | | 35 ND | | ND | | 1708 | | 51 123 | | 14 ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #40.csv | 9/12/2019 | 10:34:31 AM | #40 | 312 | | 30 16632 | | 206 ND | | ND | | 20 | | 5 63 | | 5 ND | | | | 37 | | 2 374 | | 6 9.7 | | 1.9 145 | | 5 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #41.csv | 9/12/2019 | 10:40:37 AM | #41 | 347 | | 32 23039 | | 266 ND | | 35 | | 10 31 | | 6 63 | | 6 ND | | | | 64 | | 3 373 | | 6 14 | | 2 254 | | 6 10 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #42.csv | 9/12/2019 | 10:41:01 AM | #42 | 374 | | 31 18187 | | 216 ND | | 49 | | 10 24 | | 6 80 | | 6 ND | | | | 65 | | 3 425 | | 7 14.2 | | 2 255 | | 6 11 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #43.csv | 9/12/2019 | 10:41:26 AM | #43 | 327 | | 35 19624 | | 266 ND | | 37 | | 11 44 | | 7 72 | | 7 ND | | | | 59 | | 3 379 | | 7 16 | | 2 205 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #44.csv | 9/12/2019 | 10:41:50 AM | #44 | 705 | | 39 24012 | | 262 ND | | 33 | | 9 24 | | 5 70 | | 6 ND | | | | 72 | | 3 499 | | 7 17 | | 2 211 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #45.csv | 9/12/2019 | 10:42:13 AM | #45 | 264 | | 28 18771 | | 216 ND | | 36 | | 9 18 | | 5 66 | | 5 ND | | | | 68 | | 3 426 | | 6 14.7 | | 2 241 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #46.csv | 9/12/2019 | 11:35:30 AM | #46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #47.csv | 9/12/2019 | 11:35:46 AM | #47 | 308 | | 29 20009 | | 224 ND | | ND | | 60 | | 7 129 | | 7 ND | | | | 67 | | 3 274 | | 5 18 | | 2 237 | | 5 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #48.csv | 9/12/2019 | 11:36:28 AM | #48 | 198 | | 21 11184 | | 125 ND | | 40 | | 8 35 | | 5 59 | | 4 ND | | | | 28.6 | | 1.7 472 | | 6 7.3 | | 1.4 77 | | 4 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #49.csv | 9/12/2019 | 11:36:55 AM | #49 | 298 | | 31 21267 | | 254 ND | | ND | | 73 | | 8 59 | | 6 ND | | | | 60 | | 3 436 | | 7 15 | | 2 197 | | 6 9 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #50.csv | 9/12/2019 | 11:37:17 AM | #50 | 153 | | 26 11160 | | 163 ND | | ND | | 25 | | 6 56 | | 6 ND | | | | 27 | | 2 616 | | 9 10.0 | | 1.9 101 | | 5 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #51.csv | 9/12/2019 | 11:37:48 AM | #51 | 254 | | 29 17481 | | 214 ND | | 35 | | 10 30 | | 6 56 | | 5 ND | | | | 45 | | 3 545 | | 8 14.0 | | 2 181 | | 6 9 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #52.csv | 9/12/2019 | 11:38:21 AM | #52 | 609 | | 40 41378 | | 432 ND | | 41 | | 10 35 | | 6 71 | | 6 ND | | | | 80 | | 3 672 | | 9 17 | | 2 211 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #53.csv | 9/12/2019 | 11:38:24 AM | #53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #54.csv | 9/12/2019 | 11:38:55 AM | #54 | 510 | | 57 28303 | | 485 ND | | 63 | | 17 31 | | 9 68 | | 9 ND | | | | 82 | | 5 637 | | 14 14 | | 3 164 | | 9 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #55.csv | 9/12/2019 | 11:39:18 AM | #55 | 1241 | | 59 63465 | | 675 ND | | 54 | | 12 30 | | 7 129 | | 8 ND | | | | 48 | | 3 619 | | 9 21 | | 2 162 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #56.csv | 9/12/2019 | 11:39:49 AM | #56 | 233 | | 25 15155 | | 172 ND | | ND | | 62 | | 6 65 | | 5 ND | | | | 90 | | 3 314 | | 5 16.5 | | 1.9 190 | | 5 9 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #57.csv | 9/12/2019 | 11:49:50 AM | #57 | 410 | | 33 28994 | | 308 ND | | ND | | 36 | | 6 88 | | 6 ND | | | | 96 | | 3 381 | | 6 19 | | 2 221 | | 6 12 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #58.csv | 9/12/2019 | 11:50:16 AM | #58 | 381 | | 37 35871 | | 414 ND | | 37 | | 11 50 | | 7 78 | | 7 ND | | | | 79 | | 3 499 | | 8 16 | | 2 212 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #59.csv | 9/12/2019 | 11:50:36 AM | #59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #6.csv | 9/12/2019 | 8:21:58 AM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #61.csv | 9/12/2019 | 11:50:56 AM | #61 | 756 | | 41 29921 | | 313 ND | | 46 | | 10 37 | | 6 73 | | 6 ND | | | | 98 | | 3 544 | | 8 20 | | 2 228 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #62.csv | 9/12/2019 | 11:51:19 AM | #62 | 844 | | 46 35486 | | 389 ND | | 44 | | 10 45 | | 7 78 | | 6 ND | | | | 89 | | 3 652 | | 9 18 | | 2 177 | | 6 12 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #63.csv | 9/12/2019 | 11:51:30 AM | #63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #64.csv | 9/12/2019 | 11:51:46 AM | #64 | 371 | | 36 20173 | | 265 ND | | 46 | | 11 86 | | 9 74 | | 7 ND | | | | 58 | | 3 844 | | 12 11 | | 2 116 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #65.csv | 9/12/2019 | 12:18:35 PM | #65 | 410 | | 31 23286 | | 248 ND | | 42 | | 9 45 | | 6 93 | | 6 ND | | | | 90 | | 3 411 | | 6 25 | | 2 326 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #66.csv | 9/12/2019 | 12:19:10 PM | #66 | 292 | | 28 21672 | | 238 ND | | 43 | | 9 31 | | 6 90 | | 6 ND | | | | 77 | | 3 354 | | 6 16.3 | | 2 335 | | 6 9 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #67.csv | 9/12/2019 | 12:19:34 PM | #67 | 667 | | 39 22711 | | 256 ND | | 42 | | 10 38 | | 6 106 | | 7 ND | | | | 38 | | 2 391 | | 6 22 | | 2 225 | | 6 13 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #68.csv | 9/12/2019 | 12:19:56 PM | #68 | 584 | | 37 29646 | | 317 ND | | 33 | | 9 39 | | 6 94 | | 6 ND | | | | 87 | | 3 445 | | 7 20 | | 2 379 | | 7 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #69.csv | 9/12/2019 | 12:20:20 PM | #69 | 103 | | 21 9609 | | 132 ND | | ND | | 25 | | 5 43 | | 5 ND | | | | 28.1 | | 1.9 132 | | 3 8.1 | | 1.7 147 | | 4 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #7.csv | 9/12/2019 | 8:22:12 AM | #7 | 1455 | | 406 67948 | | 3686 ND | | 984 | | 320 1449898 | | 71571 3694 | | 742 83 | | 11 | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | |
| Res_543158_09_12_19 #70.csv | 9/12/2019 | 12:20:38 PM | #70 | 315 | | 51 18470 | | 372 ND | | 56 | | 17 37 | | 11 62 | | 9 ND | | | | 120 | | 6 353 | | 10 29 | | 4 394 | | 12 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #71.csv | 9/12/2019 | 12:20:51 PM | #71 | 368 | | 34 18186 | | 235 ND | | ND | | 23 | | 6 64 | | 6 ND | | | | 132 | | 4 364 | | 6 23 | | 3 400 | | 8 18 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #72.csv | 9/12/2019 | 12:21:13 PM | #72 | 762 | | 47 37065 | | 422 ND | | 40 | | 11 42 | | 7 93 | | 7 ND | | | | 91 | | 3 565 | | 9 22 | | 2 271 | | 7 11 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #73.csv | 9/12/2019 | 12:27:38 PM | #73 | 543 | | 37 29669 | | 320 ND | | 69 | | 11 29 | | 6 65 | | 6 ND | | | | 131 | | 4 440 | | 7 25 | | 2 310 | | 7 15 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #74.csv | 9/12/2019 | 12:28:02 PM | #74 | 836 | | 49 38275 | | 436 ND | | 55 | | 11 23 | | 6 86 | | 7 ND | | | | 100 | | 4 606 | | 9 16 | | 2 287 | | 7 11 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #75.csv | 9/12/2019 | 12:28:23 PM | #75 | 455 | | 37 20466 | | 259 ND | | ND | | ND | | 50 | | 5 ND | | | | 175 | | 5 295 | | 6 24 | | 3 380 | | 8 11 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #76.csv | 9/12/2019 | 12:28:45 PM | #76 | 403 | | 34 28089 | | 308 ND | | 55 | | 10 26 | | 6 82 | | 6 ND | | | | 94 | | 3 470 | | 7 23 | | 2 319 | | 7 15 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #77.csv | 9/12/2019 | 12:29:04 PM | #77 | 732 | | 42 29666 | | 326 ND | | 55 | | 10 36 | | 6 74 | | 6 ND | | | | 115 | | 4 725 | | 10 18 | | 2 341 | | 7 10 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #78.csv | 9/12/2019 | 12:59:23 PM | #78 | 205 | | 21 11583 | | 128 ND | | ND | | 39 | | 5 100 | | 5 ND | | | | 53 | | 2 205 | | 4 13.6 | | 1.6 202 | | 4 8 | | 2 ND | | | | ND | |
| Res_543158_09_12_19 #79.csv | 9/12/2019 | 1:00:03 PM | #79 | 412 | | 32 17545 | | 203 ND | | 28 | | 9 34 | | 6 90 | | 6 ND | | | | 65 | | 3 304 | | 5 18 | | 2 265 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #8.csv | 9/12/2019 | 8:24:01 AM | #8 | ND | | 71490 | | 1928 ND | | ND | | 10360 | | 316 937 | | 66 ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 192 | 41 |
| Res_543158_09_12_19 #80.csv | 9/12/2019 | 1:00:32 PM | #80 | 335 | | 28 20073 | | 215 ND | | ND | | 36 | | 5 79 | | 5 ND | | | | 76 | | 3 277 | | 5 21.0 | | 2 220 | | 5 9 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #82.csv | 9/12/2019 | 1:01:04 PM | #82 | 736 | | 48 27551 | | 346 ND | | 49 | | 12 28 | | 7 90 | | 7 ND | | | | 87 | | 4 198 | | 5 24 | | 3 253 | | 7 16 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #83.csv | 9/12/2019 | 1:01:24 PM | #83 | 583 | | 41 31153 | | 363 ND | | 33 | | 10 28 | | 6 91 | | 7 ND | | | | 107 | | 4 324 | | 6 24 | | 2 188 | | 6 10 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #84.csv | 9/12/2019 | 1:01:41 PM | #84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #85.csv | 9/12/2019 | 1:01:58 PM | #85 | 444 | | 32 18166 | | 209 ND | | 41 | | 9 ND | | 60 | | 5 ND | | | | 116 | | 3 510 | | 7 18 | | 2 300 | | 6 12 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #86.csv | 9/12/2019 | 1:02:22 PM | #86 | 340 | | 31 16949 | | 210 ND | | ND | | 33 | | 6 58 | | 5 ND | | | | 57 | | 3 376 | | 6 21 | | 2 254 | | 6 17 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #87.csv | 9/12/2019 | 1:06:51 PM | #87 | 360 | | 32 18194 | | 225 ND | | ND | | 34 | | 6 68 | | 6 ND | | | | 77 | | 3 362 | | 6 14 | | 2 314 | | 7 12 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #89.csv | 9/12/2019 | 1:07:08 PM | #89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #9.csv | 9/12/2019 | 8:25:01 AM | #9 | ND | | 20466 | | 379 ND | | ND | | 669 | | 30 138 | | 13 ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 110 | 21 |
| Res_543158_09_12_19 #90.csv | 9/12/2019 | 1:07:23 PM | #90 | 299 | | 36 20892 | | 289 ND | | 36 | | 12 29 | | 7 68 | | 7 ND | | | | 72 | | 3 318 | | 7 18 | | 3 339 | | 8 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #91.csv | 9/12/2019 | 1:07:51 PM | #91 | 84 | | 23 8394 | | 134 ND | | ND | | 21 | | 6 32 | | 5 ND | | | | 28 | | 2 558 | | 9 6.9 | | 1.9 125 | | 5 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #92.csv | 9/12/2019 | 1:08:16 PM | #92 | 180 | | 25 9527 | | 139 ND | | ND | | 26 | | 6 39 | | 5 ND | | | | 43 | | 2 522 | | 8 10.2 | | 1.9 196 | | 6 ND | | ND | | | | ND | |
| Res_543158_09_12_19 #93.csv | 9/12/2019 | 1:08:39 PM | #93 | 310 | | 31 16938 | | 215 ND | | 49 | | 10 ND | | 68 | | 6 ND | | | | 54 | | 3 394 | | 7 16 | | 2 210 | | 6 13 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #94.csv | 9/12/2019 | 1:52:38 PM | #94 | 277 | | 28 16283 | | 195 ND | | ND | | 36 | | 6 92 | | 6 ND | | | | 60 | | 3 195 | | 4 21 | | 2 275 | | 6 9 | | 3 ND | | | | ND | |
| Res_543158_09_12_19 #95.csv | 9/12/2019 | 1:53:10 PM | #95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #96.csv | 9/12/2019 | 1:53:14 PM | #96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #97.csv | 9/12/2019 | 1:53:17 PM | #97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #98.csv | 9/12/2019 | 1:53:22 PM | #98 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #99.csv | 9/12/2019 | 1:53:26 PM | #99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #1.csv | 9/13/2019 | 8:54:57 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #10.csv | 9/13/2019 | 9:37:21 AM | #10 | 695 | | 46 | 43 | 476 | | 482 | ND | 59 | | 12 | 38 | 7 | 99 | 7 | ND | | | 99 | | 4 | 503 | 8 | 22 | 2 | 325 | 7 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #11.csv | 9/13/2019 | 9:43:28 AM | #11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #12.csv | 9/13/2019 | 9:43:46 AM | #12 | 812 | | 46 | 24 | 746 | | 295 | ND | 33 | | 10 | ND | 56 | | 6 | ND | | | 109 | | 4 | 480 | 8 | 28 | 3 | 316 | 7 | 12 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #13.csv | 9/13/2019 | 9:44:18 AM | #13 | 705 | | 43 | 33 | 638 | | 366 | ND | ND | | 35 | | 6 | 62 | 6 | ND | | | 105 | | 3 | 711 | 10 | 22 | 2 | 186 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #14.csv | 9/13/2019 | 9:44:41 AM | #14 | 1181 | | 56 | 48 | 456 | | 528 | ND | 70 | | 12 | 39 | 7 | 86 | 7 | ND | | | 94 | | 3 | 357 | 6 | 40 | 3 | 334 | 7 | 17 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #15.csv | 9/13/2019 | 9:45:01 AM | #15 | 563 | | 39 | 29 | 302 | | 325 | ND | 48 | | 10 | 34 | 6 | 71 | 6 | ND | | | 123 | | 4 | 628 | 9 | 15 | 2 | 233 | 6 | 10 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #16.csv | 9/13/2019 | 9:45:21 AM | #16 | 1050 | | 53 | 41 | 605 | | 458 | ND | 57 | | 11 | 24 | 6 | 76 | 6 | ND | | | 108 | | 4 | 664 | 10 | 20 | 2 | 275 | 7 | 12 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #17.csv | 9/13/2019 | 10:20:40 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #18.csv | 9/13/2019 | 10:20:55 AM | #18 | 370 | | 30 | 21 | 135 | | 228 | ND | 31 | | 9 | 85 | 7 | 192 | 8 | ND | | | 85 | | 3 | 288 | 5 | 18 | 2 | 338 | 6 | 10 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #19.csv | 9/13/2019 | 10:21:42 AM | #19 | 275 | | 29 | 18 | 233 | | 217 | ND | 45 | | 10 | 36 | 6 | 98 | 6 | ND | | | 70 | | 3 | 449 | 7 | 14 | 2 | 226 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #2.csv | 9/13/2019 | 9:34:12 AM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #20.csv | 9/13/2019 | 10:22:09 AM | #20 | 513 | | 31 | 23 | 909 | | 234 | ND | 59 | | 9 | 106 | 7 | 191 | 8 | ND | | | 93 | | 3 | 330 | 5 | 21 | 2 | 268 | 5 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #21.csv | 9/13/2019 | 10:22:23 AM | #21 | 145 | | 23 | 9824 | | | 139 | ND | ND | | 28 | | 6 | 53 | 5 | ND | | | 52 | | 3 | 411 | 6 | 10.3 | 1.9 | 228 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #22.csv | 9/13/2019 | 10:22:48 AM | #22 | 98 | | 21 | 9903 | | | 134 | ND | ND | | ND | | 44 | | 5 | ND | | | 34 | | 2 | 428 | 6 | 11.7 | 1.8 | 150 | 5 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #23.csv | 9/13/2019 | 10:23:14 AM | #23 | 104 | | 25 | 7761 | | | 141 | ND | ND | | ND | | 45 | | 6 | ND | | | 28 | | 2 | 317 | 7 | 10 | 2 | 226 | 7 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #24.csv | 9/13/2019 | 10:23:39 AM | #24 | 299 | | 32 | 26190 | | | 303 | ND | ND | | 23 | | 6 | 77 | 6 | ND | | | 86 | | 3 | 462 | 7 | 20 | 2 | 153 | 5 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #25.csv | 9/13/2019 | 10:24:02 AM | #25 | 439 | | 36 | 31647 | | | 353 | ND | 36 | | 10 | 20 | 6 | 66 | 6 | ND | | | 61 | | 3 | 548 | 8 | 20 | 2 | 319 | 7 | 11 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #26.csv | 9/13/2019 | 10:35:02 AM | #26 | 292 | | 28 | 12638 | | | 164 | ND | ND | | 29 | | 6 | 41 | 5 | ND | | | 92 | | 3 | 261 | 5 | 16 | 2 | 259 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #27.csv | 9/13/2019 | 10:35:28 AM | #27 | 533 | | 40 | 31879 | | | 372 | ND | ND | | 31 | | 7 | 71 | 6 | ND | | | 100 | | 4 | 490 | 8 | 18 | 2 | 213 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #28.csv | 9/13/2019 | 10:35:47 AM | #28 | 646 | | 43 | 33479 | | | 379 | ND | ND | | 25 | | 6 | 65 | 6 | ND | | | 115 | | 4 | 382 | 7 | 19 | 2 | 297 | 7 | 18 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #29.csv | 9/13/2019 | 10:36:07 AM | #29 | 557 | | 43 | 29744 | | | 373 | ND | ND | | 30 | | 7 | 75 | 7 | ND | | | 66 | | 3 | 549 | 9 | 13 | 2 | 135 | 6 | 11 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #3.csv | 9/13/2019 | 9:34:37 AM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #30.csv | 9/13/2019 | 10:36:26 AM | #30 | 749 | | 43 | 46 | 348 | | 461 | ND | 73 | | 11 | 47 | 7 | 97 | 7 | ND | | | 110 | | 3 | 796 | 10 | 19 | 2 | 292 | 7 | 15 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #31.csv | 9/13/2019 | 11:27:15 AM | #31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #32.csv | 9/13/2019 | 11:27:29 AM | #32 | 347 | | 30 | 17649 | | | 207 | ND | 55 | | 10 | 60 | 7 | 140 | 7 | ND | | | 70 | | 3 | 249 | 5 | 18 | 2 | 235 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #33.csv | 9/13/2019 | 11:27:57 AM | #33 | 514 | | 38 | 29653 | | | 333 | ND | ND | | 46 | | 7 | 153 | 8 | ND | | | 82 | | 3 | 486 | 8 | 19 | 2 | 249 | 6 | 15 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #34.csv | 9/13/2019 | 11:28:17 AM | #34 | 227 | | 28 | 13537 | | | 185 | ND | 32 | | 10 | 24 | 6 | 70 | 6 | ND | | | 61 | | 3 | 574 | 9 | 18 | 2 | 233 | 6 | 11 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #35.csv | 9/13/2019 | 11:28:36 AM | #35 | 262 | | 27 | 13925 | | | 171 | ND | ND | | 24 | | 5 | 73 | 5 | ND | | | 67 | | 3 | 495 | 7 | 12.0 | 1.9 | 203 | 5 | 10 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #36.csv | 9/13/2019 | 11:28:58 AM | #36 | 413 | | 36 | 15962 | | | 217 | ND | ND | | 31 | | 6 | 62 | 6 | ND | | | 76 | | 3 | 590 | 9 | 18 | 2 | 207 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #37.csv | 9/13/2019 | 11:29:19 AM | #37 | 479 | | 35 | 22441 | | | 259 | ND | ND | | ND | | 49 | | 5 | ND | | | 68 | | 3 | 513 | 8 | 14 | 2 | 188 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #38.csv | 9/13/2019 | 11:29:39 AM | #38 | 358 | | 33 | 26586 | | | 304 | ND | ND | | 21 | | 6 | 66 | 6 | ND | | | 109 | | 4 | 436 | 7 | 16 | 2 | 267 | 6 | 13 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #39.csv | 9/13/2019 | 11:37:32 AM | #39 | 514 | | 42 | 37831 | | | 448 | ND | 48 | | 12 | 50 | 8 | 80 | 7 | ND | | | 102 | | 4 | 536 | 9 | 20 | 3 | 193 | 6 | 11 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #4.csv | 9/13/2019 | 9:34:57 AM | #4 | 394 | | 41 | 22206 | | | 319 | ND | ND | | 52 | | 8 | 83 | 8 | ND | | | 66 | | 3 | 401 | 8 | 17 | 3 | 183 | 7 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #40.csv | 9/13/2019 | 11:37:54 AM | #40 | 452 | | 36 | 29007 | | | 321 | ND | 39 | | 10 | 22 | 6 | 76 | 6 | ND | | | 94 | | 3 | 582 | 8 | 19 | 2 | 188 | 6 | 22 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #41.csv | 9/13/2019 | 12:20:13 PM | #41 | 572 | | 35 | 18845 | | | 213 | ND | ND | | 37 | | 6 | 90 | 6 | ND | | | 88 | | 3 | 350 | 6 | 13.0 | 2 | 175 | 5 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #42.csv | 9/13/2019 | 12:20:35 PM | #42 | 323 | | 30 | 19822 | | | 227 | ND | ND | | 31 | | 6 | 70 | 6 | ND | | | 100 | | 3 | 416 | 6 | 13 | 2 | 182 | 5 | 18 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #43.csv | 9/13/2019 | 12:20:55 PM | #43 | 412 | | 33 | 17109 | | | 208 | ND | 49 | | 10 | 26 | 6 | 89 | 6 | ND | | | 107 | | 3 | 318 | 6 | 18 | 2 | 285 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #44.csv | 9/13/2019 | 12:21:19 PM | #44 | 368 | | 30 | 22165 | | | 238 | ND | 41 | | 9 | 29 | 6 | 103 | 6 | ND | | | 110 | | 3 | 323 | 5 | 18 | 2 | 393 | 7 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #45.csv | 9/13/2019 | 12:21:52 PM | #45 | 303 | | 27 | 16634 | | | 188 | ND | 35 | | 9 | 21 | 5 | 80 | 6 | ND | | | 101 | | 3 | 285 | 5 | 13.5 | 1.9 | 234 | 5 | 10 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #46.csv | 9/13/2019 | 12:22:21 PM | #46 | 484 | | 34 | 23105 | | | 251 | ND | 28 | | 9 | 32 | 6 | 99 | 6 | ND | | | 105 | | 3 | 256 | 5 | 20 | 2 | 310 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #47.csv | 9/13/2019 | 12:22:42 PM | #47 | 389 | | 30 | 17766 | | | 200 | ND | ND | | 26 | | 5 | 84 | 6 | ND | | | 96 | | 3 | 288 | 5 | 18 | 2 | 347 | 6 | 11 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #48.csv | 9/13/2019 | 12:29:49 PM | #48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #49.csv | 9/13/2019 | 12:30:03 PM | #49 | 360 | | 32 | 20300 | | | 237 | ND | 46 | | 10 | 50 | 7 | 69 | 6 | ND | | | 116 | | 4 | 417 | 7 | 12 | 2 | 202 | 6 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #5.csv | 9/13/2019 | 9:35:28 AM | #5 | 357 | | 30 | 20512 | | | 225 | ND | ND | | 44 | | 6 | 112 | 6 | ND | | | 73 | | 3 | 363 | 6 | 20 | 2 | 334 | 6 | 14 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #50.csv | 9/13/2019 | 12:30:26 PM | #50 | 118 | | 26 | 6680 | | | 126 | ND | ND | | ND | | 46 | | 6 | ND | | | 15 | | 2 | 366 | 7 | ND | 30 | | 4 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #51.csv | 9/13/2019 | 12:30:58 PM | #51 | 213 | | 26 | 19190 | | | 219 | ND | ND | | 40 | | 6 | 68 | 5 | ND | | | 118 | | 3 | 389 | 6 | 11 | 2 | 159 | 5 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #52.csv | 9/13/2019 | 12:31:22 PM | #52 | 241 | | 25 | 11089 | | | 142 | ND | ND | | 30 | | 5 | 47 | 5 | ND | | | 63 | | 3 | 520 | 7 | 6.5 | 1.7 | 120 | 5 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #53.csv | 9/13/2019 | 12:31:49 PM | #53 | 158 | | 23 | 11128 | | | 144 | ND | ND | | 25 | | 5 | 56 | 5 | ND | | | 96 | | 3 | 474 | 7 | 7.6 | 1.9 | 80 | 4 | ND | ND | | | | ND | |
| Res_543158_09_13_19 #6.csv | 9/13/2019 | 9:35:49 AM | #6 | 480 | | 37 | 24038 | | | 283 | ND | ND | | 22 | | 6 | 93 | 7 | ND | | | 65 | | 3 | 267 | 5 | 23 | 2 | 313 | 7 | 12 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #7.csv | 9/13/2019 | 9:36:08 AM | #7 | 544 | | 34 | 23183 | | | 242 | ND | ND | | 38 | | 6 | 95 | 6 | ND | | | 85 | | 3 | 334 | 5 | 18.6 | 2 | 311 | 6 | 11 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #8.csv | 9/13/2019 | 9:36:32 AM | #8 | 370 | | 33 | 31258 | | | 340 | ND | 28 | | 9 | 39 | 6 | 105 | 7 | ND | | | 91 | | 3 | 231 | 5 | 25 | 2 | 318 | 7 | 17 | 3 | ND | | | ND | |
| Res_543158_09_13_19 #9.csv | 9/13/2019 | 9:36:59 AM | #9 | 399 | | 33 | 24277 | | | 276 | ND | ND | | 30 | | 6 | 74 | 6 | ND | | | 213 | | 5 | 376 | 6 | 25 | 3 | 322 | 7 | ND | ND | | | | ND | |
| Res_543158_09_17_19 #1.csv | 9/17/2019 | 1:24:02 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #1.csv | 9/18/2019 | 11:56:18 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #2.csv | 9/18/2019 | 11:58:20 AM | #2 | 192 | | 12 | 9550 | | | 67 | ND | ND | | 11 | | 2 | 38 | 2 | ND | | | 29.9 | | 1 | 205 | 2 | 9.9 | 0.9 | 118 | 2 | ND | ND | | | | ND | |
| Res_543158_09_18_19 #3.csv | 9/18/2019 | 12:01:28 PM | #3 | 97630 | | 2987 | 2138197 | | | 52921 | ND | 128934 | | 3277 | 4773 | 233 | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | 24264 | | 606 | | ND | |
| Res_543158_09_18_19 #4.csv | 9/18/2019 | 12:02:09 PM | #4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #5.csv | 9/18/2019 | 12:04:25 PM | #5 | 210 | | 4 | 8978 | | | 55 | ND | ND | | ND | | 28.3 | | 1.7 | ND | | | 27.8 | | 0.8 | 265 | 2 | 7.0 | 0.7 | 107.6 | 1.9 | ND | ND | | | | 17 | 5 |
| Res_543158_09_25_19 #1.csv | 9/25/2019 | 8:52:36 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #10.csv | 9/25/2019 | 10:09:30 AM | #10 | 109 | | 21 | 31302 | | | 280 | ND | ND | | 19 | | 4 | 24 | 3 | ND | | | 56 | | 2 | 403 | 5 | 7.4 | 1.6 | 281 | 5 | 9 | 2 | ND | | | ND | |
| Res_543158_09_25_19 #11.csv | 9/25/2019 | 10:09:40 AM | #11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #12.csv | 9/25/2019 | 10:10:02 AM | #12 | 587 | | 34 | 24994 | | | 251 | ND | ND | | 24 | | 5 | 88 | 6 | ND | | | 53 | | 2 | 456 | 6 | 18.2 | 1.8 | 166 | 5 | ND | ND | | | | ND | |
| Res_543158_09_25_19 #14.csv | 9/25/2019 | 10:10:32 AM | #14 | 45 | | 15 | 7683 | | | 95 | ND | ND | | ND | | 15 | | 3 | ND | | | 87 | | 2 | 150 | 3 | 8.6 | 1.5 | 156 | 4 | ND | ND | | | | ND | |
| Res_543158_09_25_19 #15.csv | 9/25/2019 | 10:10:51 AM | #15 | ND | | 24586 | | | | 575 | ND | ND | | ND | | ND | | ND | | | | ND | | 404 | | 13 | 20 | 4 | 135 | 10 | ND | ND | | | | ND | |
| Res_543158_09_25_19 #16.csv | 9/25/2019 | 11:18:08 AM | #16 | 308 | | 15 | 16983 | | | 106 | ND | 70 | | 5 | 25 | 3 | 36 | 2 | 4.2 | 1 | | 102.1 | | 1.7 | 174 | 2 | 16.6 | 1.1 | 201 | 3 | ND | ND | | | | ND | |
| Res_543158_09_25_19 #17.csv | 9/25/2019 | 11:19:49 AM | #17 | 386 | | 18 | 23735 | | | 146 | ND | 32 | | 5 | 11 | 3 | 50 | 3 | ND | | | 77.9 | | 1.6 | 327 | 3 | 8.8 | 1.1 | 141 | 3 | ND | ND | | | | ND | |
| Res_543158_09_25_19 #18.csv | 9/25/2019 | 11:20:55 AM | #18 | 278 | | 15 | 19135 | | | 120 | ND | 31 | | 5 | 19 | 3 | 41 | 2 | 2.5 | 1 | | 95.3 | | 1.7 | 234 | 2 | 13.0 | 1.1 | 166 | 3 | ND | ND | | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_25_19 #19.csv | 9/25/2019 | 11:22:49 AM | #19 | 419 | 24 | 20150 | 172 | ND | | ND | | 12 | 4 | 51 | 4 | ND | | | | 95 | | 186 | 2 | 10.6 | 1.5 | 142 | 3 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #2.csv | 9/25/2019 | 8:55:56 AM | #2 | 291 | 15 | 18118 | 112 | ND | | 14 | 4 | 16 | 3 | 31 | 2 | ND | | | | 78.2 | 1.5 | 270 | 3 | 9.3 | 1 | 156 | 3 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #20.csv | 9/25/2019 | 1:26:30 PM | #20 | 169 | 20 | 7776 | 98 | ND | | ND | | 13 | 4 | 53 | 4 | ND | | | | 25.5 | 1.7 | 244 | 4 | 10.6 | 1.5 | 102 | 4 | ND | | ND | | | | 41 | 10 |
| Res_543158_09_25_19 #21.csv | 9/25/2019 | 1:29:13 PM | #21 | 194 | 28 | 21586 | 261 | ND | | ND | | 23 | 6 | 28 | 4 | ND | | | | 87 | | 150 | 4 | 21 | 2 | 120 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #22.csv | 9/25/2019 | 1:30:59 PM | #22 | 165 | 19 | 12253 | 126 | ND | | ND | | 18 | 4 | 38 | 3 | ND | | | | 58 | | 190 | 3 | 11.5 | 1.5 | 120 | 3 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #23.csv | 9/25/2019 | 1:31:23 PM | #23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #24.csv | 9/25/2019 | 1:31:48 PM | #24 | 259 | 21 | 17405 | 161 | ND | | ND | | 20 | 4 | 38 | 4 | ND | | | | 70 | | 195 | 3 | 12.6 | 1.5 | 125 | 3 | 9 | | 2 | ND | | | ND | |
| Res_543158_09_25_19 #25.csv | 9/25/2019 | 1:32:27 PM | #25 | 153 | 19 | 10763 | 119 | ND | | ND | | 18 | 4 | 24 | 3 | ND | | | | 69 | | 131 | 3 | 14.3 | 1.6 | 109 | 3 | ND | | ND | | | | 36 | 10 |
| Res_543158_09_25_19 #26.csv | 9/25/2019 | 1:34:05 PM | #26 | 128 | 21 | 11061 | 136 | ND | | ND | | ND | | 23 | 4 | ND | | | | 72 | | 132 | 3 | 11.1 | 1.7 | 95 | 4 | 9 | | 3 | ND | | | ND | |
| Res_543158_09_25_19 #27.csv | 9/25/2019 | 1:41:59 PM | #27 | 693 | 55 | 17451 | 294 | ND | | ND | | ND | | 23 | 6 | ND | | | | 104 | | 137 | 5 | 15 | 3 | 121 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #28.csv | 9/25/2019 | 1:42:19 PM | #28 | 713 | 26 | 18135 | 139 | ND | | 28 | 6 | 20 | 3 | 36 | 3 | 4.4 | | 1 | | 103 | | 140 | 2 | 11.5 | 1.3 | 130 | 3 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #29.csv | 9/25/2019 | 1:43:55 PM | #29 | 228 | 23 | 17610 | 177 | ND | | ND | | 21 | 5 | 37 | 4 | ND | | | | 79 | | 190 | 3 | 16.4 | 1.7 | 136 | 4 | 8 | | 2 | ND | | | 36 | 11 |
| Res_543158_09_25_19 #3.csv | 9/25/2019 | 8:57:41 AM | #3 | 242 | 14 | 17546 | 111 | ND | | 18 | 5 | 17 | 3 | 38 | 2 | ND | | | | 73.5 | 1.5 | 181 | 2 | 10.9 | 1 | 120 | 2 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #30.csv | 9/25/2019 | 1:44:16 PM | #30 | 210 | 30 | 13656 | 199 | ND | | ND | | ND | | 37 | 5 | ND | | | | 77 | | 180 | 5 | 9 | 2 | 122 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #31.csv | 9/25/2019 | 1:44:45 PM | #31 | 189 | 28 | 14406 | 198 | ND | | ND | | ND | | 31 | 5 | ND | | | | 65 | | 178 | 4 | 12 | 2 | 140 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #32.csv | 9/25/2019 | 1:48:46 PM | #32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #33.csv | 9/25/2019 | 2:29:38 PM | #33 | ND | | 8585 | 107 | ND | | ND | | ND | | 17 | 3 | ND | | | | 11.8 | 1.3 | 123 | 3 | 13.8 | 1.5 | 117 | 4 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #34.csv | 9/25/2019 | 2:30:10 PM | #34 | ND | | 5053 | 109 | ND | | ND | | 19 | 6 | ND | | 13 | | 2 | | 109 | | 4 | 26 | 2 | 13 | 2 | 77 | 4 | ND | | ND | | | ND | |
| Res_543158_09_25_19 #35.csv | 9/25/2019 | 2:31:27 PM | #35 | ND | | 3860 | 74 | ND | | ND | | ND | | 18 | 4 | ND | | | | 17.6 | 1.7 | 66 | 2 | 16.9 | 1.8 | 163 | 4 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #36.csv | 9/25/2019 | 2:31:44 PM | #36 | ND | | 87399 | 1263 | ND | | ND | | ND | | 28 | 7 | ND | | | | 53 | | 4 | 848 | 16 | ND | 131 | 8 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #37.csv | 9/25/2019 | 2:32:58 PM | #37 | ND | | 29556 | 373 | ND | | ND | | ND | | 22 | 5 | ND | | | | 11.5 | 1.9 | 133 | 4 | 17 | 2 | 132 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #38.csv | 9/25/2019 | 2:33:29 PM | #38 | ND | | 99971 | 1050 | ND | | ND | | 29 | 7 | ND | | ND | | | | 12.3 | 1.8 | 187 | 5 | 14 | 2 | 145 | 5 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #39.csv | 9/25/2019 | 2:34:05 PM | #39 | ND | | 12936 | 224 | ND | | ND | | 22 | 7 | ND | | ND | | | | 7 | | 213 | 6 | 13 | 2 | 94 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #4.csv | 9/25/2019 | 8:59:48 AM | #4 | 488 | 19 | 24463 | 152 | ND | | 32 | 5 | 23 | 3 | 60 | 3 | 2.3 | | 1 | | 85.0 | 1.7 | 308 | 3 | 11.2 | 1.1 | 179 | 3 | 5.2 | 1.5 | ND | | | | ND | |
| Res_543158_09_25_19 #40.csv | 9/25/2019 | 2:34:23 PM | #40 | ND | | 40348 | 649 | ND | | ND | | ND | | ND | | ND | | | | 20 | | 660 | 14 | 13 | 3 | 135 | 8 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #41.csv | 9/25/2019 | 2:34:39 PM | #41 | 189 | 34 | 18281 | 288 | ND | | ND | | ND | | 38 | 6 | ND | | | | 71 | | 149 | 5 | 13 | 3 | 107 | 6 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #42.csv | 9/25/2019 | 2:35:01 PM | #42 | ND | | 61216 | 490 | ND | | ND | | 27 | 5 | 21 | 3 | ND | | | | 14.4 | 1.5 | 344 | 5 | 16.9 | 1.5 | 129 | 4 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #43.csv | 9/25/2019 | 2:36:27 PM | #43 | 160 | 21 | 13881 | 154 | ND | | ND | | 22 | 5 | 28 | 4 | ND | | | | 49 | | 141 | 3 | 9.0 | 1.6 | 83 | 3 | ND | | ND | | | | 102 | 12 |
| Res_543158_09_25_19 #44.csv | 9/25/2019 | 2:37:13 PM | #44 | ND | | 5500 | 76 | ND | | ND | | ND | | ND | | 5.5 | | 1 | | 83 | | 36.3 | 1.6 | 6.8 | 1.5 | 67 | 3 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #45.csv | 9/25/2019 | 2:37:39 PM | #45 | 375 | 28 | 17283 | 188 | ND | | ND | | ND | | 36 | 4 | ND | | | | 64 | | 221 | 4 | 7.0 | 1.7 | 145 | 4 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #5.csv | 9/25/2019 | 9:20:11 AM | #5 | 29 | 10 | 12037 | 84 | ND | | ND | | 7 | 2 | 14.0 | 1.9 | ND | | | | 14.0 | 0.9 | 278 | 3 | 11.4 | 0.9 | 123 | 2 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #6.csv | 9/25/2019 | 9:20:26 AM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #7.csv | 9/25/2019 | 9:20:56 AM | #7 | 75 | 16 | 7264 | 90 | ND | | ND | | ND | | 14 | 3 | ND | | | | 99 | | 72 | 2 | 5.2 | 1.5 | 163 | 4 | 11 | | 2 | ND | | | ND | |
| Res_543158_09_25_19 #8.csv | 9/25/2019 | 9:21:28 AM | #8 | 54 | 14 | 34828 | 219 | ND | | ND | | ND | | 11 | 2 | ND | | | | 29.6 | 1.2 | 277 | 3 | 9.6 | 1.1 | 135 | 3 | ND | | ND | | | | ND | |
| Res_543158_09_25_19 #9.csv | 9/25/2019 | 9:22:13 AM | #9 | 216 | 23 | 14738 | 164 | ND | | ND | | ND | | 38 | 4 | ND | | | | 30.1 | 1.9 | 277 | 5 | 8.2 | 1.6 | 109 | 4 | ND | | 13 | | 3 | | 37 | 11 |
| Res_543158_10_01_19 #10.csv | 10/1/2019 | 12:27:38 PM | #10 | 53 | 12 | 28620 | 166 | ND | | ND | | 16 | 3 | 10.4 | 1.9 | 2.3 | | 1 | | 90.1 | 1.6 | 204 | 2 | 9.2 | 1 | 138 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #11.csv | 10/1/2019 | 12:28:21 PM | #11 | 53 | 12 | 53886 | 264 | ND | | 15 | 4 | 15 | 3 | ND | | 5.2 | | 1 | | 131.7 | 1.8 | 69.9 | 1.3 | 11.1 | 1 | 109 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #12.csv | 10/1/2019 | 2:23:53 PM | #12 | ND | | 2666 | 36 | ND | | ND | | 10 | 3 | ND | | ND | | | | 87.6 | 1.7 | 19.0 | 0.9 | 5.7 | 1.1 | 62.5 | 2 | ND | | ND | | | | 24 | 8 |
| Res_543158_10_01_19 #13.csv | 10/1/2019 | 2:24:04 PM | #13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #15.csv | 10/1/2019 | 2:24:43 PM | #15 | 34 | 10 | 10393 | 81 | ND | | ND | | 10 | 3 | ND | | 2.5 | | 1 | | 92.8 | 1.7 | 23.8 | 1 | 8.8 | 1.1 | 62.0 | 2 | ND | | ND | | | | 36 | 7 |
| Res_543158_10_01_19 #16.csv | 10/1/2019 | 2:25:25 PM | #16 | ND | | 2592 | 41 | ND | | ND | | ND | | ND | | ND | | | | 63.1 | 1.8 | 22.8 | 1.2 | 8.0 | 1.2 | 51 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #17.csv | 10/1/2019 | 2:26:15 PM | #17 | 244 | 19 | 21510 | 171 | ND | | 21 | 6 | 14 | 4 | 22 | 3 | 4.0 | | 1 | | 75.9 | 2 | 137 | 2 | 7.1 | 1.3 | 79 | 3 | 8.0 | 1.9 | 7 | | 2 | | 58 | 9 |
| Res_543158_10_01_19 #18.csv | 10/1/2019 | 2:26:51 PM | #18 | 38 | 9 | 2147 | 29 | ND | | ND | | ND | | ND | | ND | | | | 77.2 | 1.5 | 16.1 | 0.8 | ND | 4.8 | | 1.5 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #19.csv | 10/1/2019 | 2:27:33 PM | #19 | 56 | 11 | 16044 | 109 | ND | | ND | | ND | | ND | | 4.2 | | 1 | | 63.7 | 1.5 | 31.1 | 1 | 4.2 | 1 | 26.6 | 1.7 | ND | | ND | | | | 169 | 8 |
| Res_543158_10_01_19 #20.csv | 10/1/2019 | 3:00:12 PM | #20 | 170 | 11 | 12026 | 74 | ND | | ND | | 7 | 2 | 40 | 2 | ND | | | | 35.7 | 1 | 253 | 2 | 8.5 | 0.8 | 171 | 2 | 5.1 | 1.2 | ND | | | | ND | |
| Res_543158_10_01_19 #21.csv | 10/1/2019 | 3:01:24 PM | #21 | 180 | 14 | 12899 | 93 | ND | | ND | | ND | | 37 | 2 | ND | | | | 32.4 | 1.2 | 238 | 3 | 9.9 | 1 | 153 | 3 | 4.6 | 1.5 | ND | | | | ND | |
| Res_543158_10_01_19 #22.csv | 10/1/2019 | 4:10:30 PM | #22 | 126 | 12 | 11671 | 84 | ND | | ND | | 13 | 3 | 13.3 | 1.9 | ND | | | | 70.5 | 1.5 | 146.5 | 1.9 | 11.4 | 1 | 120 | 2 | 4.5 | 1.4 | ND | | | | ND | |
| Res_543158_10_01_19 #23.csv | 10/1/2019 | 4:11:16 PM | #23 | 140 | 11 | 7829 | 59 | ND | | ND | | 11 | 2 | 16.4 | 1.8 | ND | | | | 72.0 | 1.4 | 89.4 | 1.4 | 9.9 | 0.9 | 109 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #24.csv | 10/1/2019 | 4:11:28 PM | #24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #25.csv | 10/1/2019 | 4:12:09 PM | #25 | 287 | 15 | 16003 | 103 | ND | | 14 | 4 | 10 | 3 | 43 | 2 | ND | | | | 63.6 | 1.4 | 206 | 2 | 10.6 | 1 | 154 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #26.csv | 10/1/2019 | 4:12:53 PM | #26 | 214 | 13 | 17248 | 105 | ND | | 15 | 4 | 19 | 3 | 31 | 2 | ND | | | | 69.4 | 1.4 | 181 | 2 | 9.0 | 0.9 | 127 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #27.csv | 10/1/2019 | 4:14:46 PM | #27 | 40 | 13 | 28887 | 184 | ND | | ND | | 13 | 3 | ND | | 6.4 | | 1 | | 84.2 | 1.7 | 20.8 | 1 | 9.6 | 1.1 | 68 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #28.csv | 10/1/2019 | 4:16:36 PM | #28 | 96 | 11 | 10883 | 80 | ND | | ND | | 14 | 3 | 9.2 | 1.8 | 3.8 | | 1 | | 62.8 | 1.4 | 31.3 | 1 | 4.8 | 0.9 | 42.6 | 1.8 | ND | | ND | | | | 22 | 7 |
| Res_543158_10_01_19 #29.csv | 10/1/2019 | 4:17:18 PM | #29 | 45 | 12 | 13193 | 103 | ND | | 16 | 5 | 10 | 3 | 9 | 2 | 5.5 | | 1 | | 134 | 2 | 37.8 | 1.2 | 15.7 | 1.3 | 104 | 2 | 8.3 | 1.7 | ND | | | | 40 | 8 |
| Res_543158_10_01_19 #30.csv | 10/1/2019 | 4:18:24 PM | #30 | 88 | 16 | 35108 | 253 | ND | | ND | | 34 | 4 | 30 | 3 | 11.7 | | 1 | | 110 | 2 | 21.6 | 1.2 | 8.9 | 1.4 | 50 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #4.csv | 10/1/2019 | 11:55:30 AM | #4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #7.csv | 10/1/2019 | 12:24:37 PM | #7 | 68 | 10 | 8385 | 60 | ND | | ND | | ND | | 10.1 | 1.6 | ND | | | | 60.7 | 1.3 | 247 | 2 | 12.9 | 0.9 | 143 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #8.csv | 10/1/2019 | 12:25:27 PM | #8 | 109 | 14 | 36618 | 222 | ND | | ND | | 12 | 3 | 8 | 2 | 2.9 | | 1 | | 89.0 | 1.8 | 393 | 4 | 11.8 | 1.2 | 151 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_01_19 #9.csv | 10/1/2019 | 12:26:57 PM | #9 | ND | | 9939 | 79 | ND | | ND | | ND | | ND | | 4.4 | | 1 | | 123 | 2 | 25.5 | 1 | 10.7 | 1.2 | 122 | 2 | 6.5 | 1.5 | ND | | | | 24 | 7 |
| Res_543158_10_02_19 #1.csv | 10/2/2019 | 7:52:35 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #10.csv | 10/2/2019 | 10:58:56 AM | #10 | 44 | 10 | 11129 | 80 | ND | | ND | | 13 | 3 | 6.3 | 1.6 | 4.1 | | 1 | | 81.9 | 1.5 | 56.3 | 1.2 | 21.9 | 1.1 | 43.2 | 1.7 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #11.csv | 10/2/2019 | 10:59:37 AM | #11 | ND | | 1318 | 24 | ND | | ND | | ND | | 5.2 | 1.7 | ND | | | | 84.3 | 1.7 | 17.6 | 0.9 | 5.6 | 1 | 71 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #12.csv | 10/2/2019 | 11:00:26 AM | #12 | 44 | 10 | 9442 | 73 | ND | | ND | | 15 | 3 | ND | | 4.3 | | 1 | | 103.4 | 1.8 | 37.2 | 1.1 | 6.7 | 1 | 57.8 | 1.9 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #13.csv | 10/2/2019 | 11:03:57 AM | #13 | 90 | 29 | 166963 | 1217 | ND | | ND | | ND | | ND | | 28.1 | 2 | | | 61 | 2 | 98 | 2 | ND | 8 | | 3 | ND | | ND | | | | 94 | 11 |
| Res_543158_10_02_19 #14.csv | 10/2/2019 | 11:05:19 AM | #14 | 75 | 12 | 11345 | 86 | ND | | ND | | 9 | 3 | 12.1 | 1.9 | ND | | | | 139 | 2 | 184 | 2 | 13.5 | 1.2 | 109 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #15.csv | 10/2/2019 | 2:18:44 PM | #15 | 83 | 12 | 15624 | 111 | ND | | ND | | 9 | 3 | 6.8 | 1.9 | ND | | | | 105.4 | 1.9 | 99.7 | 1.7 | 10.8 | 1.2 | 67 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #16.csv | 10/2/2019 | 2:19:37 PM | #16 | 45 | 11 | 14908 | 100 | ND | | 18 | 5 | 8 | 3 | ND | | 4.1 | | 1 | | 133.8 | 2 | 64.2 | 1.3 | 14.3 | 1.2 | 65.2 | 1.9 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #17.csv | 10/2/2019 | 2:20:17 PM | #17 | 34 | 10 | 10657 | 80 | ND | | ND | | ND | | ND | | 2.9 | | 1 | | 76.1 | 1.5 | 40.1 | 1.1 | 7.0 | 1 | 71.0 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #18.csv | 10/2/2019 | 2:20:31 PM | #18 | ND | | 2624 | 71 | ND | | ND | | ND | | ND | | ND | | | | 95 | | 4 | 19.1 | 1.9 | 14 | 2 | 60 | 4 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #19.csv | 10/2/2019 | 2:29:05 PM | #19 | 51 | 12 | 8755 | 78 | ND | | ND | | ND | | 6.0 | 1.9 | 4.0 | | 1 | | 125 | 2 | 22.5 | 1 | 9.4 | 1.2 | 66 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #2.csv | 10/2/2019 | 9:28:04 AM | #2 | 64 | 10 | 5219 | 47 | ND | | 36 | 5 | 22 | 3 | ND | | 4.1 | | 1 | | 61.4 | 1.3 | 38.8 | 1 | 5.7 | 0.9 | 74.6 | 1.9 | ND | | ND | | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_02_19 #20.csv | 10/2/2019 | 2:30:34 PM | #20 | ND | | 17823 | 379 | ND | | ND | | 45 | 12 | 23 | 7 | ND | | | | 67 | | 5 | 120 | 6 | ND | 53 | 7 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #21.csv | 10/2/2019 | 2:30:59 PM | #21 | 124 | 31 | 20791 | 313 | ND | | ND | | ND | | ND | | ND | | | | 110 | | 4 | 153 | 5 | ND | 76 | 5 | 11 | 4 | ND | | | | ND | |
| Res_543158_10_02_19 #22.csv | 10/2/2019 | 2:34:54 PM | #22 | 87 | 13 | 9192 | 83 | ND | | ND | | 12 | 3 | 15 | 2 | ND | | | | 127 | | 2 | 164 | 2 | 7.9 | 1.4 | 119 | 3 | 5.6 | 1.7 | ND | | | ND | |
| Res_543158_10_02_19 #23.csv | 10/2/2019 | 2:35:38 PM | #23 | 200 | 13 | 15893 | 97 | ND | | 14 | 4 | 12 | 2 | 28 | 2 | ND | | | | 61.5 | 1.3 | 315 | | 3 | 6.5 | 0.9 | 139 | 2 | ND | | | | | ND | |
| Res_543158_10_02_19 #24.csv | 10/2/2019 | 2:36:22 PM | #24 | 56 | 11 | 3089 | 41 | ND | | ND | | ND | | 5.6 | 1.8 | ND | | | | 127 | | 2 | 153 | 2 | ND | 60 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #25.csv | 10/2/2019 | 2:37:43 PM | #25 | 93 | 14 | 14462 | 121 | ND | | ND | | 15 | 3 | ND | 5.0 | | 1 | | | 157 | | 3 | 174 | 3 | 10.1 | 1.4 | 94 | 3 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #26.csv | 10/2/2019 | 2:38:30 PM | #26 | 42 | 11 | 1711 | 29 | ND | | ND | | ND | | ND | | ND | | | | 108.3 | | 2 | 67.3 | 1.5 | 8.7 | 1.2 | 71 | 2 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #27.csv | 10/2/2019 | 2:39:12 PM | #27 | 53 | 11 | 2917 | 39 | ND | | ND | | 13 | 3 | ND | 2.6 | | 1 | | | 139 | | 2 | 34.0 | 1.1 | 10.1 | 1.2 | 82 | 2 | 6.1 | 1.6 | 9.7 | 2 | | ND | |
| Res_543158_10_02_19 #28.csv | 10/2/2019 | 2:40:07 PM | #28 | 46 | 11 | 5022 | 52 | ND | | ND | | 9 | 3 | ND | | ND | | | | 112.6 | | 2 | 41.2 | 1.2 | 6.5 | 1.1 | 71 | 2 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #29.csv | 10/2/2019 | 2:40:56 PM | #29 | 58 | 11 | 7001 | 62 | ND | | ND | | ND | | ND | | ND | | | | 126 | | 2 | 34.1 | 1.1 | 6.9 | 1.1 | 78 | 2 | ND | | ND | | | 22 | 7 |
| Res_543158_10_02_19 #3.csv | 10/2/2019 | 9:28:49 AM | #3 | 48 | 10 | 5358 | 51 | ND | | ND | | ND | | ND | 2.6 | | 1 | | | 73.5 | 1.5 | 25.1 | | 0.9 | 3.5 | 1 | 55.7 | 1.8 | ND | | ND | | | 36 | 7 |
| Res_543158_10_02_19 #30.csv | 10/2/2019 | 2:41:44 PM | #30 | 45 | 12 | 2917 | 43 | ND | | ND | | ND | | ND | | ND | | | | 112 | | 2 | 61.9 | 1.6 | 11.9 | 1.3 | 131 | 3 | 6.4 | 1.8 | ND | | | ND | |
| Res_543158_10_02_19 #31.csv | 10/2/2019 | 3:49:44 PM | #31 | 572 | 20 | 34546 | 188 | ND | | 55 | 5 | 29 | 3 | 69 | 3 | ND | | | | 69.6 | 1.5 | 426 | | 3 | 14.2 | 1 | 251 | 3 | 4.9 | 1.4 | ND | | | ND | |
| Res_543158_10_02_19 #32.csv | 10/2/2019 | 3:49:54 PM | #32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #33.csv | 10/2/2019 | 3:50:31 PM | #33 | 427 | 18 | 23387 | 142 | ND | | 26 | 5 | 20 | 3 | 52 | 3 | 2.7 | 1 | | | 68.1 | 1.5 | 354 | | 3 | 14.1 | 1.1 | 239 | 3 | 6.6 | 1.5 | ND | | | ND | |
| Res_543158_10_02_19 #34.csv | 10/2/2019 | 3:51:11 PM | #34 | 739 | 26 | 20325 | 151 | ND | | ND | | ND | | 62 | 3 | ND | | | | 69.4 | 1.8 | 357 | | 4 | 8.5 | 1.2 | 139 | 3 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #35.csv | 10/2/2019 | 4:27:05 PM | #35 | 43 | 11 | 6420 | 63 | ND | | ND | | 12 | 3 | ND | | ND | | | | 113 | | 2 | 40.9 | 1.2 | 4.5 | 1.2 | 43 | 2 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #36.csv | 10/2/2019 | 4:27:47 PM | #36 | ND | | 1883 | 26 | ND | | ND | | 8 | 2 | ND | | ND | | | | 111.3 | 1.7 | 22.6 | | 0.9 | 6.3 | 1 | 55.3 | 1.7 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #37.csv | 10/2/2019 | 4:28:43 PM | #37 | ND | | 45963 | 465 | ND | | ND | | ND | | ND | 5.1 | | 2 | | | 83 | | 3 | 17.5 | 1.6 | 9.5 | 1.9 | 57 | 3 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #38.csv | 10/2/2019 | 4:28:59 PM | #38 | ND | | 22547 | 519 | ND | | ND | | ND | | ND | | ND | | | | 78 | | 6 | 43 | 4 | ND | 38 | 7 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #39.csv | 10/2/2019 | 4:29:25 PM | #39 | ND | | 29231 | 464 | ND | | ND | | ND | | ND | | ND | | | | 84 | | 4 | 53 | 3 | ND | 62 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #4.csv | 10/2/2019 | 9:29:34 AM | #4 | 58 | 11 | 10485 | 80 | ND | | 18 | 5 | 10 | 3 | 9.4 | 1.8 | 2.2 | 1 | | | 78.4 | 1.6 | 50.9 | | 1.2 | 15.2 | 1.1 | 82 | 2 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #40.csv | 10/2/2019 | 4:29:29 PM | #40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #41.csv | 10/2/2019 | 4:30:02 PM | #41 | 158 | 18 | 37066 | 260 | ND | | ND | | 29 | 4 | 23 | 3 | 6.3 | 1 | | | 115 | | 2 | 69.5 | 1.7 | 4.5 | 1.3 | 45 | 2 | ND | | ND | | | 35 | 9 |
| Res_543158_10_02_19 #42.csv | 10/2/2019 | 4:31:38 PM | #42 | 523 | 36 | 18480 | 218 | ND | | 59 | 10 | 39 | 6 | 62 | 5 | ND | | | | 97 | | 3 | 165 | 4 | 8.8 | 2 | 283 | 6 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #43.csv | 10/2/2019 | 4:31:59 PM | #43 | 546 | 64 | 35057 | 628 | ND | | ND | | ND | | 124 | 12 | ND | | | | 108 | | 6 | 17 | 3 | ND | 198 | 8 | ND | | ND | | | | ND | |
| Res_543158_10_02_19 #5.csv | 10/2/2019 | 9:30:09 AM | #5 | 54 | 12 | 7791 | 75 | ND | | ND | | 14 | 3 | ND | | ND | | | | 85.2 | 1.9 | 31.9 | | 1.2 | 8.6 | 1.2 | 62 | 2 | ND | | ND | | | 31 | 8 |
| Res_543158_10_02_19 #6.csv | 10/2/2019 | 9:30:54 AM | #6 | 56 | 10 | 12719 | 87 | ND | | ND | | 10 | 3 | 5.2 | 1.6 | ND | | | | 91.4 | 1.6 | 61.8 | | 1.3 | 6.8 | 1 | 76.1 | 1.9 | ND | | ND | | | 24 | 7 |
| Res_543158_10_02_19 #7.csv | 10/2/2019 | 9:31:38 AM | #7 | 114 | 15 | 39765 | 245 | ND | | ND | | 11 | 3 | 18 | 2 | 8.6 | 1 | | | 97.7 | 1.9 | 175 | | 2 | 11.4 | 1.2 | 98 | 3 | ND | | ND | | | ND | |
| Res_543158_10_02_19 #8.csv | 10/2/2019 | 9:32:34 AM | #8 | ND | | 39121 | 246 | ND | | ND | | 14 | 3 | ND | 8.5 | | 1 | | | 72.0 | 1.7 | 55.2 | | 1.4 | 7.0 | 1.1 | 41 | 2 | ND | | ND | | | 171 | 9 |
| Res_543158_10_02_19 #9.csv | 10/2/2019 | 10:58:15 AM | #9 | 39 | 10 | 15944 | 103 | ND | | ND | | ND | | ND | 4.4 | | 1 | | | 95.7 | 1.6 | 40.2 | | 1.1 | 4.4 | 1 | 57.0 | 1.8 | ND | | ND | | | 67 | 7 |
| Res_543158_10_03_19 #1.csv | 10/3/2019 | 7:56:23 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #10.csv | 10/3/2019 | 8:11:44 AM | #10 | ND | | 2165 | 29 | ND | | ND | | 7 | 2 | ND | | ND | | | | 82.9 | 1.5 | 18.7 | | 0.8 | 14.1 | 1 | 52.6 | 1.7 | ND | | ND | | | 29 | 6 |
| Res_543158_10_03_19 #11.csv | 10/3/2019 | 8:12:28 AM | #11 | ND | | 2085 | 27 | ND | | ND | | 9 | 2 | ND | | ND | | | | 59.7 | 1.3 | 33.1 | | 0.9 | 14.2 | 0.9 | 45.8 | 1.6 | ND | | ND | | | 36 | 6 |
| Res_543158_10_03_19 #12.csv | 10/3/2019 | 8:14:01 AM | #12 | 63 | 14 | 2845 | 47 | ND | | ND | | ND | | ND | | ND | | | | 123 | 3 | 12.8 | | 1.1 | 10.2 | 1.5 | 86 | 3 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #13.csv | 10/3/2019 | 8:14:55 AM | #13 | 49 | 11 | 6815 | 64 | ND | | ND | | 10 | 3 | ND | 3.1 | | 1 | | | 112.9 | 2 | 31.1 | | 1.1 | 8.5 | 1.2 | 104 | 2 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #14.csv | 10/3/2019 | 8:15:50 AM | #14 | 36 | 10 | 3227 | 39 | ND | | ND | | ND | | 5.6 | 1.7 | 2.8 | 1 | | | 92.2 | 1.7 | 22.5 | | 0.9 | 7.6 | 1.1 | 67.5 | 2 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #15.csv | 10/3/2019 | 8:19:12 AM | #15 | 51 | 9 | 5298 | 49 | ND | | ND | | ND | | ND | 11.2 | | 1 | | | 96.3 | 1.6 | 23.5 | | 0.9 | 5.9 | 1 | 90 | 2 | ND | | ND | | | 28 | 7 |
| Res_543158_10_03_19 #16.csv | 10/3/2019 | 8:22:47 AM | #16 | ND | | 2459 | 38 | ND | | ND | | ND | | ND | | ND | | | | 105 | | 2 | 30.9 | 1.2 | 9.7 | 1.3 | 67 | 2 | 7.4 | 1.7 | 11 | 2 | | 40 | 8 |
| Res_543158_10_03_19 #17.csv | 10/3/2019 | 8:23:13 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #18.csv | 10/3/2019 | 8:23:24 AM | #18 | ND | | 34309 | 477 | ND | | ND | | ND | | ND | | ND | | | | 112 | | 4 | 112 | 4 | ND | 42 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #19.csv | 10/3/2019 | 8:23:50 AM | #19 | ND | | 17070 | 242 | ND | | ND | | ND | | ND | | ND | | | | 135 | | 4 | 90 | 3 | 15 | 3 | 98 | 5 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #2.csv | 10/3/2019 | 8:06:15 AM | #2 | 57 | 14 | 33587 | 222 | ND | | ND | | 17 | 3 | 7 | 2 | ND | | | | 107 | | 2 | 58.8 | 1.5 | 6.8 | 1.2 | 57 | 2 | ND | | ND | | | 36 | 8 |
| Res_543158_10_03_19 #20.csv | 10/3/2019 | 8:26:44 AM | #20 | 77 | 11 | 5920 | 53 | ND | | ND | | 12 | 3 | ND | | ND | | | | 120.7 | 1.9 | 29.6 | | 1 | ND | 103 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #21.csv | 10/3/2019 | 8:40:30 AM | #21 | ND | | 6901 | 58 | ND | | ND | | ND | | ND | | ND | | | | 82.9 | 1.5 | 17.6 | | 0.8 | 8.8 | 1 | 68.1 | 1.9 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #22.csv | 10/3/2019 | 8:41:27 AM | #22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #23.csv | 10/3/2019 | 8:41:41 AM | #23 | 60 | 19 | 8675 | 127 | ND | | ND | | ND | | ND | | ND | | | | 139 | | 4 | 43 | 2 | 14 | 2 | 119 | 4 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #24.csv | 10/3/2019 | 8:41:48 AM | #24 | ND | | 22130 | 510 | ND | | ND | | ND | | ND | 17 | | 4 | | | 119 | | 7 | 43 | 4 | 15 | 4 | 125 | 9 | 21 | 6 | ND | | | 91 | 28 |
| Res_543158_10_03_19 #25.csv | 10/3/2019 | 8:41:52 AM | #25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #26.csv | 10/3/2019 | 9:59:53 AM | #26 | 74 | 9 | 1897 | 25 | ND | | ND | | 7 | 2 | ND | | ND | | | | 151.4 | 1.9 | 32.6 | | 0.9 | 6.6 | 1 | 72.8 | 1.7 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #27.csv | 10/3/2019 | 10:00:34 AM | #27 | 78 | 11 | 7275 | 65 | ND | | ND | | 10 | 3 | 5.8 | 1.8 | ND | | | | 182 | | 2 | 204 | 2 | 5.1 | 1.2 | 78 | 2 | 4.9 | 1.5 | ND | | | ND | |
| Res_543158_10_03_19 #28.csv | 10/3/2019 | 10:01:18 AM | #28 | 55 | 10 | 2824 | 34 | ND | | ND | | 10 | 3 | ND | | ND | | | | 137.4 | 2 | 34.7 | | 1 | 7.4 | 1.1 | 70.5 | 1.9 | ND | | ND | | | 22 | 7 |
| Res_543158_10_03_19 #29.csv | 10/3/2019 | 11:13:08 AM | #29 | ND | | 3054 | 39 | ND | | ND | | 10 | 3 | ND | | ND | | | | 140 | 2 | 132.3 | | 2 | 8.9 | 1.2 | 72 | 2 | 4.7 | 1.6 | ND | | | ND | |
| Res_543158_10_03_19 #3.csv | 10/3/2019 | 8:06:58 AM | #3 | 79 | 19 | 46306 | 350 | ND | | ND | | ND | | ND | | ND | | | | 105 | 2 | 163 | | 3 | 6.5 | 1.5 | 42 | 3 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #30.csv | 10/3/2019 | 11:28:11 AM | #30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #31.csv | 10/3/2019 | 11:28:50 AM | #31 | 74 | 11 | 7136 | 60 | ND | | ND | | 14 | 3 | 5.7 | 1.6 | ND | | | | 108.5 | 1.8 | 24.5 | | 0.9 | 9.4 | 1.1 | 71.4 | 1.9 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #32.csv | 10/3/2019 | 11:29:32 AM | #32 | 94 | 11 | 7419 | 61 | ND | | ND | | 11 | 3 | ND | | ND | | | | 177 | 2 | 155.4 | | 2 | 9.3 | 1.1 | 92 | 2 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #34.csv | 10/3/2019 | 2:30:53 PM | #34 | 62 | 19 | 12724 | 153 | ND | | ND | | ND | | 9 | 3 | ND | | | | 117 | 3 | 41.7 | | 1.9 | 8.6 | 1.9 | 67 | 3 | 8 | 3 | 12 | 3 | | 56 | 12 |
| Res_543158_10_03_19 #35.csv | 10/3/2019 | 2:31:38 PM | #35 | 46 | 9 | 2380 | 30 | ND | | ND | | ND | | ND | | ND | | | | 82.7 | 1.5 | 21.0 | | 0.8 | 17.3 | 1 | 75.2 | 1.8 | ND | | ND | | | 26 | 6 |
| Res_543158_10_03_19 #36.csv | 10/3/2019 | 2:32:24 PM | #36 | 49 | 10 | 9660 | 75 | ND | | ND | | 9 | 3 | ND | 5.3 | | 1 | | | 99.4 | 1.7 | 44.7 | | 1.2 | 4.0 | 1 | 41.3 | 1.8 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #37.csv | 10/3/2019 | 2:33:15 PM | #37 | ND | | 35744 | 241 | ND | | ND | | 15 | 3 | 11 | 2 | 7.2 | 1 | | | 169 | 3 | 240 | | 3 | 15.3 | 1.5 | 91 | 3 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #38.csv | 10/3/2019 | 2:34:04 PM | #38 | 34 | 11 | 5103 | 54 | ND | | ND | | 13 | 3 | ND | | ND | | | | 85.5 | 1.8 | 49.6 | | 1.3 | 6.0 | 1.1 | 30.4 | 1.9 | 9.6 | 1.6 | 6.6 | 2 | | 28 | 8 |
| Res_543158_10_03_19 #39.csv | 10/3/2019 | 2:34:35 PM | #39 | ND | | 12620 | 230 | ND | | ND | | ND | | ND | | ND | | | | 93 | 4 | 50 | | 3 | ND | 45 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #4.csv | 10/3/2019 | 8:07:19 AM | #4 | ND | | 54057 | 635 | ND | | ND | | ND | | ND | 8.5 | | 2 | | | 76 | 3 | 40 | | 2 | ND | 63 | 4 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #40.csv | 10/3/2019 | 2:35:52 PM | #40 | 85 | 10 | 5621 | 47 | ND | | ND | | 9 | 2 | 7.2 | 1.5 | ND | | | | 176 | 2 | 52.4 | | 1.1 | 18.2 | 1.1 | 94.6 | 1.9 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #41.csv | 10/3/2019 | 2:36:34 PM | #41 | 275 | 16 | 18303 | 123 | ND | | 19 | 5 | 11 | 3 | 26 | 2 | ND | | | | 63.6 | 1.5 | 318 | | 3 | 9.9 | 1.1 | 159 | 3 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #42.csv | 10/3/2019 | 2:37:18 PM | #42 | 185 | 14 | 18740 | 118 | ND | | ND | | 17 | 3 | 23 | 2 | ND | | | | 87.3 | 1.6 | 279 | | 3 | 11.8 | 1.1 | 142 | 3 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #43.csv | 10/3/2019 | 2:37:35 PM | #43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #44.csv | 10/3/2019 | 2:38:14 PM | #44 | 259 | 15 | 15395 | 103 | ND | | 20 | 5 | 19 | 3 | 27 | 2 | ND | | | | 69.6 | 1.5 | 228 | | 2 | 6.2 | 1 | 142 | 3 | ND | | ND | | | ND | |
| Res_543158_10_03_19 #46.csv | 10/3/2019 | 2:39:01 PM | #46 | 261 | 15 | 16608 | 111 | ND | | 26 | 5 | 16 | 3 | 29 | 2 | ND | | | | 98.0 | 1.8 | 307 | | 3 | 13.2 | 1.1 | 176 | 3 | 6.2 | 1.5 | ND | | | ND | |
| Res_543158_10_03_19 #47.csv | 10/3/2019 | 2:41:49 PM | #47 | 212 | 25 | 17724 | 197 | ND | | ND | | ND | | 31 | 4 | ND | | | | 86 | | 3 | 271 | 5 | 13.2 | 1.9 | 170 | 5 | ND | | ND | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_03_19 #48.csv | 10/3/2019 | 2:42:26 PM | #48 | 297 | 16 | 19632 | 125 | ND | | 21 | 5 | 16 | | 3 | 32 | 2 | ND | | | | 91.1 | 1.7 | 278 | 3 | 9.6 | 1.1 | 197 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #49.csv | 10/3/2019 | 2:55:42 PM | #49 | 246 | 14 | 15865 | 103 | ND | | 15 | 4 | 21 | | 3 | 20 | 2 | ND | | | | 75.5 | 1.5 | 253 | 3 | 12.2 | 1 | 166 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #5.csv | 10/3/2019 | 8:08:02 AM | #5 | ND | | 4768 | 48 | ND | | ND | | 10 | | 3 | 5.4 | 1.7 | ND | | | | 97.6 | 1.8 | 27.7 | 1 | 6.7 | 1.1 | 46.4 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #50.csv | 10/3/2019 | 2:55:51 PM | #50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #51.csv | 10/3/2019 | 2:56:29 PM | #51 | 316 | 17 | 19803 | 129 | ND | | ND | | 13 | | 3 | 34 | 2 | ND | | | | 82.3 | 1.7 | 299 | 3 | 11.0 | 1.1 | 186 | 3 | 5.8 | 1.5 | ND | | | | ND | |
| Res_543158_10_03_19 #52.csv | 10/3/2019 | 2:56:41 PM | #52 | 267 | 30 | 18293 | 231 | ND | | ND | | 23 | | 6 | 26 | 4 | ND | | | | 78 | 3 | 332 | 6 | 12 | 2 | 161 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #53.csv | 10/3/2019 | 2:56:53 PM | #53 | 289 | 41 | 15109 | 271 | ND | | 43 | 14 | ND | | 26 | | 6 | ND | | | | 85 | 4 | 301 | 8 | ND | | 166 | 7 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #54.csv | 10/3/2019 | 2:57:16 PM | #54 | 187 | 26 | 16979 | 209 | ND | | 31 | 9 | 20 | | 5 | 25 | 4 | ND | | | | 94 | 3 | 248 | 5 | ND | | 170 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #55.csv | 10/3/2019 | 3:18:38 PM | #55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #56.csv | 10/3/2019 | 3:18:43 PM | #56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #57.csv | 10/3/2019 | 3:19:18 PM | #57 | 237 | 16 | 22262 | 145 | ND | | ND | | 15 | | 3 | 31 | 2 | ND | | | | 58.1 | 1.5 | 385 | 4 | 11.9 | 1.1 | 153 | 3 | 6.3 | 1.6 | ND | | | | ND | |
| Res_543158_10_03_19 #58.csv | 10/3/2019 | 3:19:55 PM | #58 | 251 | 15 | 18107 | 121 | ND | | ND | | 16 | | 3 | 35 | 2 | ND | | | | 53.5 | 1.4 | 383 | 3 | 10.6 | 1.1 | 154 | 3 | 5.4 | 1.5 | ND | | | | ND | |
| Res_543158_10_03_19 #59.csv | 10/3/2019 | 3:20:19 PM | #59 | 350 | 29 | 16953 | 196 | ND | | 29 | 9 | ND | | 32 | | 4 | ND | | | | 79 | 3 | 288 | 5 | 9.7 | 1.8 | 151 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #6.csv | 10/3/2019 | 8:08:44 AM | #6 | 47 | 11 | 8950 | 77 | ND | | ND | | ND | | ND | | ND | | | | | 107.6 | 2 | 19.7 | 1 | 8.0 | 1.2 | 55 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #60.csv | 10/3/2019 | 3:21:53 PM | #60 | 326 | 20 | 16288 | 132 | ND | | 21 | 6 | 24 | | 4 | 30 | 3 | ND | | | | 95 | 2 | 260 | 3 | 13.5 | 1.4 | 138 | 3 | 7.2 | 1.8 | 8 | | 2 | | ND | |
| Res_543158_10_03_19 #61.csv | 10/3/2019 | 3:22:06 PM | #61 | 376 | 43 | 17638 | 293 | ND | | ND | | 28 | | 8 | 50 | 7 | ND | | | | 78 | 4 | 308 | 8 | 15 | 3 | 178 | 7 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #62.csv | 10/3/2019 | 3:23:01 PM | #62 | 340 | 16 | 19552 | 119 | ND | | 37 | 5 | 28 | | 3 | 41 | 2 | ND | | | | 108.6 | 1.8 | 329 | 3 | 12.8 | 1.1 | 204 | 3 | 5.4 | 1.4 | ND | | | | ND | |
| Res_543158_10_03_19 #63.csv | 10/3/2019 | 3:37:08 PM | #63 | 332 | 16 | 19693 | 125 | ND | | 21 | 5 | 21 | | 3 | 38 | 2 | ND | | | | 81.4 | 1.6 | 273 | 3 | 11.8 | 1.1 | 180 | 3 | 5.2 | 1.5 | ND | | | | ND | |
| Res_543158_10_03_19 #65.csv | 10/3/2019 | 3:37:55 PM | #65 | 314 | 18 | 19744 | 136 | ND | | 15 | 5 | 24 | | 3 | 33 | 3 | ND | | | | 79.4 | 1.7 | 231 | 3 | 9.0 | 1.1 | 152 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #66.csv | 10/3/2019 | 3:38:40 PM | #66 | 202 | 15 | 41234 | 230 | ND | | 14 | 5 | 22 | | 3 | 18 | 2 | ND | | | | 97.7 | 1.8 | 318 | 3 | 8.8 | 1.1 | 142 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #67.csv | 10/3/2019 | 4:22:42 PM | #67 | 388 | 22 | 21633 | 172 | ND | | 40 | 7 | 17 | | 4 | 41 | 3 | ND | | | | 59.3 | 1.8 | 264 | 3 | 12.8 | 1.4 | 182 | 4 | 12.0 | 2 | ND | | | | 33 | 9 |
| Res_543158_10_03_19 #68.csv | 10/3/2019 | 4:23:23 PM | #68 | 343 | 17 | 24283 | 147 | ND | | 42 | 5 | 21 | | 3 | 51 | 3 | ND | | | | 85.3 | 1.6 | 344 | 3 | 15.8 | 1.1 | 244 | 3 | 5.1 | 1.5 | ND | | | | ND | |
| Res_543158_10_03_19 #69.csv | 10/3/2019 | 4:24:05 PM | #69 | 260 | 15 | 15992 | 107 | ND | | 17 | 5 | 18 | | 3 | 34 | 2 | ND | | | | 96.5 | 1.7 | 234 | 3 | 13.1 | 1.1 | 142 | 3 | 4.6 | 1.5 | ND | | | | 25 | 7 |
| Res_543158_10_03_19 #7.csv | 10/3/2019 | 8:09:31 AM | #7 | 52 | 13 | 12354 | 110 | ND | | 29 | 6 | ND | | ND | | 2.8 | | 1 | | | 37.4 | 1.5 | 54.2 | 1.5 | 4.5 | 1.1 | 15 | 2 | ND | | 12 | | 2 | | 158 | 9 |
| Res_543158_10_03_19 #70.csv | 10/3/2019 | 4:24:44 PM | #70 | 255 | 13 | 13723 | 87 | ND | | 21 | 4 | 10 | | 2 | 32 | 2 | ND | | | | 52.1 | 1.2 | 171.8 | 1.9 | 8.8 | 0.9 | 122 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #72.csv | 10/3/2019 | 4:26:43 PM | #72 | 872 | 30 | 23062 | 179 | ND | | 34 | 7 | 27 | | 4 | 49 | 3 | ND | | | | 38.9 | 1.5 | 317 | 4 | 8.7 | 1.3 | 175 | 4 | 7.2 | 1.9 | ND | | | | ND | |
| Res_543158_10_03_19 #73.csv | 10/3/2019 | 4:27:23 PM | #73 | 523 | 19 | 20788 | 129 | ND | | 50 | 5 | 22 | | 3 | 41 | 3 | ND | | | | 71.3 | 1.5 | 412 | 3 | 10.0 | 1 | 168 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #74.csv | 10/3/2019 | 4:28:11 PM | #74 | 421 | 20 | 25067 | 166 | ND | | 23 | 5 | 17 | | 3 | 45 | 3 | ND | | | | 51.6 | 1.5 | 367 | 4 | 16.4 | 1.2 | 232 | 3 | 13.8 | 1.7 | ND | | | | ND | |
| Res_543158_10_03_19 #75.csv | 10/3/2019 | 4:32:55 PM | #75 | 230 | 15 | 15896 | 108 | ND | | 16 | 5 | 10 | | 3 | 30 | 2 | ND | | | | 63.1 | 1.5 | 239 | 3 | 13.8 | 1.1 | 151 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #76.csv | 10/3/2019 | 4:33:02 PM | #76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #77.csv | 10/3/2019 | 4:33:36 PM | #77 | 356 | 16 | 21527 | 128 | ND | | 44 | 5 | 20 | | 3 | 38 | 2 | ND | | | | 62.4 | 1.4 | 357 | 3 | 16.6 | 1 | 234 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #78.csv | 10/3/2019 | 5:09:06 PM | #78 | 87 | 11 | 10514 | 73 | ND | | 17 | 4 | 9 | | 2 | 12.7 | 1.7 | 2.4 | | 1 | | 86.7 | 1.5 | 153.2 | 1.9 | 5.7 | 0.9 | 56.6 | 1.9 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #79.csv | 10/3/2019 | 5:09:48 PM | #79 | 106 | 12 | 9848 | 78 | ND | | ND | | 15 | | 3 | 10.8 | 1.9 | ND | | | | 90.2 | 1.7 | 157 | 2 | 8.0 | 1.1 | 102 | 2 | 5.5 | 1.5 | ND | | | | ND | |
| Res_543158_10_03_19 #8.csv | 10/3/2019 | 8:10:56 AM | #8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #80.csv | 10/3/2019 | 5:10:28 PM | #80 | 275 | 20 | 24549 | 184 | ND | | 27 | 6 | 21 | | 4 | 23 | 3 | ND | | | | 62.0 | 1.8 | 254 | 3 | 13.5 | 1.3 | 139 | 3 | 7.8 | 1.9 | ND | | | | ND | |
| Res_543158_10_03_19 #81.csv | 10/3/2019 | 5:11:08 PM | #81 | 72 | 11 | 20227 | 125 | ND | | ND | | 19 | | 3 | 7.3 | 1.7 | 2.9 | | 1 | | 112.8 | 1.8 | 90.6 | 1.5 | 4.4 | 1 | 47.0 | 1.8 | ND | | ND | | | | 29 | 7 |
| Res_543158_10_03_19 #82.csv | 10/3/2019 | 5:11:55 PM | #82 | 47 | 9 | 5100 | 47 | ND | | ND | | 9 | | 2 | ND | | ND | | | | 112.3 | 1.7 | 63.1 | 1.2 | 6.3 | 1 | 67.4 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #83.csv | 10/3/2019 | 5:34:13 PM | #83 | 352 | 46 | 49673 | 677 | ND | | ND | | 49 | | 9 | 27 | 6 | ND | | | | 82 | 4 | 266 | 7 | 11 | 3 | 122 | 6 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #84.csv | 10/3/2019 | 5:34:47 PM | #84 | 94 | 13 | 9213 | 82 | ND | | ND | | 20 | | 3 | 12 | 2 | ND | | | | 112 | 2 | 77.1 | 1.6 | 8.8 | 1.2 | 84 | 2 | 5.2 | 1.7 | 7 | | 2 | | ND | |
| Res_543158_10_03_19 #85.csv | 10/3/2019 | 5:35:38 PM | #85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #86.csv | 10/3/2019 | 5:35:51 PM | #86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #87.csv | 10/3/2019 | 5:40:44 PM | #87 | 51 | 10 | 11816 | 80 | ND | | ND | | 12 | | 3 | 6.7 | 1.6 | 3.3 | | 1 | | 128.1 | 1.8 | 120.9 | 1.7 | 7.2 | 1 | 101 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #88.csv | 10/3/2019 | 5:41:26 PM | #88 | 144 | 13 | 14342 | 97 | ND | | 24 | 5 | 16 | | 3 | 18 | 2 | 2.5 | | 1 | | 167 | 2 | 190 | 2 | 8.0 | 1.1 | 75 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #89.csv | 10/3/2019 | 5:41:47 PM | #89 | ND | | 3067 | 75 | ND | | ND | | ND | | ND | | ND | | | | | 143 | 4 | 85 | 3 | 13 | 2 | 100 | 5 | ND | | ND | | | | ND | |
| Res_543158_10_03_19 #9.csv | 10/3/2019 | 8:11:08 AM | #9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #90.csv | 10/3/2019 | 5:42:45 PM | #90 | 46 | 9 | 5582 | 49 | ND | | 14 | 4 | 14 | | 3 | 5.5 | 1.6 | ND | | | | 108.5 | 1.7 | 25.9 | 0.9 | 5.4 | 1 | 75.1 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #1.csv | 10/4/2019 | 8:31:10 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #10.csv | 10/4/2019 | 9:12:34 AM | #10 | 278 | 47 | 18970 | 372 | ND | | ND | | ND | | 30 | | 7 | ND | | | | 76 | 5 | 189 | 7 | 12 | 3 | 138 | 8 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #11.csv | 10/4/2019 | 9:15:33 AM | #11 | 218 | 4 | 12191 | 71 | ND | | 15 | 4 | 13 | | 2 | 20.3 | 1.7 | ND | | | | 68.6 | 1.2 | 129.8 | 1.5 | 9.2 | 0.8 | 101.2 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #12.csv | 10/4/2019 | 9:23:38 AM | #12 | ND | | 14012 | 232 | ND | | ND | | ND | | ND | | 7.1 | | 2 | | | 76 | 4 | 32 | 2 | ND | | 42 | 4 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #13.csv | 10/4/2019 | 9:24:30 AM | #13 | 49 | 10 | 8997 | 70 | ND | | ND | | 12 | | 3 | ND | | ND | | | | 110.1 | 1.8 | 37.7 | 1.1 | 7.8 | 1.1 | 52.9 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #14.csv | 10/4/2019 | 9:27:23 AM | #14 | ND | | 16538 | 210 | ND | | ND | | ND | | ND | | 5.8 | | 2 | | | 93 | 3 | 64 | 3 | 9 | 2 | 66 | 4 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #15.csv | 10/4/2019 | 9:28:14 AM | #15 | 35 | 9 | 2794 | 33 | ND | | ND | | 10 | | 2 | 5.6 | 1.6 | 2.1 | | 1 | | 121.1 | 1.8 | 47.5 | 1.1 | 5.5 | 1 | 39.8 | 1.7 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #16.csv | 10/4/2019 | 9:29:03 AM | #16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #17.csv | 10/4/2019 | 9:29:10 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #18.csv | 10/4/2019 | 9:30:36 AM | #18 | 60 | 3 | 5716 | 42 | ND | | ND | | 6.2 | | 2 | ND | 2.2 | | 1 | | | 82.5 | 1.3 | 18.2 | 0.7 | 7.0 | 0.8 | 73.0 | 1.6 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #19.csv | 10/4/2019 | 10:13:04 AM | #19 | 202 | 14 | 15872 | 105 | ND | | ND | | 15 | | 3 | 24 | 2 | ND | | | | 79.5 | 1.6 | 315 | 3 | 12.0 | 1.1 | 148 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #2.csv | 10/4/2019 | 8:40:31 AM | #2 | 333 | 5 | 14026 | 80 | ND | | 17 | 4 | 17 | | 2 | 33.1 | 1.9 | ND | | | | 92.9 | 1.4 | 248 | 2 | 10.1 | 0.9 | 150 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #20.csv | 10/4/2019 | 10:13:22 AM | #20 | 256 | 39 | 17014 | 292 | ND | | ND | | ND | | 23 | | 6 | ND | | | | 67 | 4 | 345 | 8 | 12 | 3 | 165 | 7 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #21.csv | 10/4/2019 | 10:14:58 AM | #21 | 378 | 6 | 13460 | 79 | ND | | 12 | 4 | 19 | | 2 | 28.7 | 1.9 | ND | | | | 58.1 | 1.2 | 168.0 | 1.7 | 7.5 | 0.8 | 89.3 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #22.csv | 10/4/2019 | 10:17:09 AM | #22 | 356 | 6 | 12340 | 80 | ND | | 19 | 4 | 18 | | 3 | 24.8 | 2 | ND | | | | 86.6 | 1.5 | 150.1 | 1.8 | 5.4 | 0.9 | 79.8 | 1.9 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #24.csv | 10/4/2019 | 10:19:17 AM | #24 | 293 | 44 | 17557 | 325 | ND | | ND | | ND | | 32 | | 7 | ND | | | | 54 | 4 | 369 | 9 | 16 | 3 | 189 | 8 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #25.csv | 10/4/2019 | 10:20:08 AM | #25 | 253 | 14 | 14133 | 90 | ND | | ND | | 12 | | 2 | 24 | 2 | ND | | | | 59.7 | 1.3 | 287 | 3 | 12.3 | 1 | 138 | 2 | 5.5 | 1.4 | ND | | | | ND | |
| Res_543158_10_04_19 #26.csv | 10/4/2019 | 10:21:34 AM | #26 | 334 | 6 | 13174 | 96 | ND | | ND | | 11 | | 3 | 27 | 2 | ND | | | | 54.5 | 1.4 | 267 | 3 | 12.8 | 1.1 | 128 | 3 | 9.5 | 1.6 | 6.7 | | 1.9 | | ND | |
| Res_543158_10_04_19 #27.csv | 10/4/2019 | 10:23:40 AM | #27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #28.csv | 10/4/2019 | 10:24:28 AM | #28 | 332 | 25 | 21453 | 203 | ND | | 26 | 8 | 16 | | 4 | 42 | 4 | ND | | | | 69 | 2 | 314 | 5 | 14.9 | 1.7 | 203 | 4 | 12 | 2 | ND | | | | ND | |
| Res_543158_10_04_19 #29.csv | 10/4/2019 | 10:24:32 AM | #29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #30.csv | 10/4/2019 | 10:25:57 AM | #30 | 349 | 7 | 21116 | 139 | ND | | 35 | 5 | 20 | | 3 | 38 | 3 | ND | | | | 73.0 | 1.6 | 304 | 3 | 17.7 | 1.2 | 210 | 3 | 12.1 | 1.6 | ND | | | | ND | |
| Res_543158_10_04_19 #31.csv | 10/4/2019 | 10:45:32 AM | #31 | 192 | 6 | 15287 | 103 | ND | | 19 | 5 | 18 | | 3 | 14.4 | 1.9 | ND | | | | 98.0 | 1.7 | 271 | 3 | 10.6 | 1.1 | 130 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #32.csv | 10/4/2019 | 10:47:40 AM | #32 | 150 | 5 | 19260 | 114 | ND | | ND | | 26 | | 3 | 11.8 | 1.7 | ND | | | | 91.6 | 1.6 | 178 | 2 | 6.7 | 1 | 107 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_04_19 #33.csv | 10/4/2019 | 10:50:22 AM | #33 | 96 | 22 | 6403 | 110 | ND | | ND | | ND | | ND | | ND | | | | | 136 | 4 | 110 | 3 | 8 | 2 | 123 | 5 | ND | | ND | | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_04_19 #34.csv | 10/4/2019 | 10:51:03 AM | #34 | ND | | 15104 | 300 | ND | | ND | | ND | | ND | | ND | | | | 116 | | 5 | 136 | 6 | ND | 80 | | 6 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #35.csv | 10/4/2019 | 10:53:56 AM | #35 | 86 | | 4 9701 | 64 | ND | | 15 | | 4 22 | | 3 5.9 | 1.5 | ND | | | | 152.4 | | 1.8 | 133.2 | 1.6 | ND | 89.4 | | 1.9 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #36.csv | 10/4/2019 | 10:56:25 AM | #36 | 108 | | 5 11616 | 83 | ND | | ND | | 21 | | 3 ND | | ND | | | | 85.9 | | 1.6 | 90.2 | 1.5 | 3.1 | 1 | 54.3 | 1.9 | ND | 6.0 | | 1.8 | | 50 | 7 |
| Res_543158_10_04_19 #37.csv | 10/4/2019 | 10:59:43 AM | #37 | 73 | | 4 6316 | 53 | ND | | ND | | 14 | | 3 7.8 | 1.6 | ND | | | | 157 | | 2 | 88.8 | 1.4 | 8.3 | 1.1 | 86 | 2 | ND | ND | | | | 21 | 7 |
| Res_543158_10_04_19 #39.csv | 10/4/2019 | 11:03:47 AM | #39 | 85 | | 4 5092 | 42 | ND | | ND | | 7 | | 2 ND | | ND | | | | 125.2 | | 1.6 | 27.0 | 0.8 | 6.7 | 0.9 | 72.6 | 1.7 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #4.csv | 10/4/2019 | 8:53:56 AM | #4 | 366 | | 6 23755 | 124 | ND | | 30 | | 4 20 | | 3 42 | | 2 ND | | | | 85.2 | | 1.4 | 296 | 2 | 12.7 | 0.9 | 191 | 2 | 4.6 | 1.3 | ND | | | ND | |
| Res_543158_10_04_19 #40.csv | 10/4/2019 | 11:07:15 AM | #40 | 170 | | 5 14406 | 103 | ND | | ND | | ND | | ND | | 4.0 | | 1 | | 96.3 | | 1.8 | 71.7 | 1.5 | 11.1 | 1.1 | 55 | 2 | 6.4 | 1.6 | ND | | | 38 | 7 |
| Res_543158_10_04_19 #41.csv | 10/4/2019 | 11:14:04 AM | #41 | 49 | | 4 14494 | 84 | ND | | ND | | ND | | ND | | 2.0 | | 1 | | 110.8 | | 1.6 | 47.1 | 1 | 4.9 | 0.9 | 58.6 | 1.6 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #42.csv | 10/4/2019 | 11:17:12 AM | #42 | 88 | | 4 5262 | 48 | ND | | ND | | 8 | | 2 ND | | ND | | | | 141.7 | | 2 | 57.0 | 1.2 | 7.6 | 1.1 | 76.1 | 1.9 | 5.9 | 1.4 | ND | | | ND | |
| Res_543158_10_04_19 #43.csv | 10/4/2019 | 11:21:16 AM | #43 | 77 | | 3 7315 | 50 | ND | | 11 | | 4 10 | | 2 7.8 | 1.4 | ND | | | | 152.8 | | 1.7 | 93.8 | 1.3 | ND | 79.0 | | 1.7 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #44.csv | 10/4/2019 | 11:22:41 AM | #44 | 78 | | 3 7988 | 54 | ND | | ND | | 10 | | 2 5.7 | 1.4 | ND | | | | 161.1 | | 1.8 | 107.0 | 1.4 | ND | 93.1 | | 1.8 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #45.csv | 10/4/2019 | 11:26:45 AM | #45 | 100 | | 4 10877 | 68 | ND | | 12 | | 4 13 | | 2 5.2 | 1.4 | 2.9 | | 1 | | 115.9 | | 1.6 | 78.6 | 1.2 | 4.6 | 0.9 | 92.8 | 1.8 | ND | ND | | | | 28 | 6 |
| Res_543158_10_04_19 #46.csv | 10/4/2019 | 11:28:53 AM | #46 | 41 | | 12 3996 | 53 | ND | | ND | | ND | | ND | | 3.6 | | 1 | | 160 | | 3 | 121 | 2 | ND | 80 | | 3 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #47.csv | 10/4/2019 | 11:30:18 AM | #47 | 125 | | 4 3663 | 34 | ND | | ND | | 10 | | 2 4.2 | 1.3 | 2.6 | | 1 | | 158.5 | | 1.8 | 120.9 | 1.5 | 4.2 | 0.9 | 75.9 | 1.7 | ND | ND | | | | 18 | 6 |
| Res_543158_10_04_19 #48.csv | 10/4/2019 | 11:32:53 AM | #48 | 76 | | 4 3114 | 33 | ND | | ND | | 7 | | 2 ND | | ND | | | | 135.6 | | 1.8 | 51.2 | 1.1 | 7.3 | 1 | 65.4 | 1.7 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #49.csv | 10/4/2019 | 11:35:48 AM | #49 | 156 | | 5 15569 | 102 | ND | | 14 | | 5 43 | | 3 11.1 | 1.9 | 4.5 | | 1 | | 97.4 | | 1.7 | 77.1 | 1.4 | 6.0 | 1 | 48.9 | 1.9 | 4.4 | 1.4 | ND | | | 37 | 7 |
| Res_543158_10_04_19 #5.csv | 10/4/2019 | 8:56:02 AM | #5 | 343 | | 50 19734 | 375 | ND | | ND | | ND | | 39 | | 8 | ND | | | 59 | | 4 | 291 | 8 | 14 | 3 | 205 | 9 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #50.csv | 10/4/2019 | 11:39:36 AM | #50 | 144 | | 4 8903 | 61 | ND | | 12 | | 4 13 | | 2 13.9 | 1.6 | ND | | | | 93.5 | | 1.5 | 84.0 | 1.3 | 5.5 | 0.9 | 141 | 2 | 4.6 | 1.3 | ND | | | ND | |
| Res_543158_10_04_19 #51.csv | 10/4/2019 | 11:45:01 AM | #51 | 229 | | 4 11839 | 70 | ND | | ND | | 16 | | 2 18.2 | 1.6 | ND | | | | 62.0 | | 1.2 | 138.1 | 1.5 | 8.6 | 0.8 | 86.3 | 1.8 | ND | ND | | | | 19 | 6 |
| Res_543158_10_04_19 #52.csv | 10/4/2019 | 11:48:12 AM | #52 | 277 | | 6 11518 | 91 | ND | | ND | | 11 | | 3 27 | | 2 ND | | | | 57.7 | | 1.5 | 154 | 2 | 17.9 | 1.2 | 108 | 3 | 7.1 | 1.6 | 6.5 | 2 | | ND | |
| Res_543158_10_04_19 #53.csv | 10/4/2019 | 11:51:05 AM | #53 | 259 | | 5 12344 | 75 | ND | | ND | | 11 | | 2 23.1 | 1.8 | ND | | | | 66.5 | | 1.2 | 137.7 | 1.6 | 9.8 | 0.9 | 104.1 | 1.9 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #6.csv | 10/4/2019 | 9:10:22 AM | #6 | 120 | | 12 14304 | 96 | ND | | ND | | 8 | | 3 20 | | 2 ND | | | | 63.0 | | 1.4 | 184 | 2 | 10.2 | 1 | 133 | 2 | 4.5 | 1.4 | ND | | | 26 | 7 |
| Res_543158_10_04_19 #7.csv | 10/4/2019 | 9:11:38 AM | #7 | 212 | | 20 16961 | 157 | ND | | ND | | 17 | | 4 27 | | 3 ND | | | | 83 | | 2 | 211 | 3 | 9.1 | 1.5 | 116 | 3 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #8.csv | 10/4/2019 | 9:12:05 AM | #8 | 151 | | 30 12811 | 213 | ND | | ND | | ND | | 23 | | 5 ND | | | | 80 | | 4 | 134 | 4 | 15 | 3 | 117 | 5 | ND | ND | | | | ND | |
| Res_543158_10_04_19 #9.csv | 10/4/2019 | 9:12:24 AM | #9 | 274 | | 28 15433 | 188 | ND | | ND | | 26 | | 5 36 | | 4 ND | | | | 88 | | 3 | 189 | 4 | 10.3 | 1.9 | 148 | 5 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #1.csv | 10/7/2019 | 7:50:11 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #10.csv | 10/7/2019 | 8:57:55 AM | #10 | 48 | | 6 7554 | 60 | ND | | ND | | ND | | ND | | ND | | | | 88.7 | | 1.6 | 57.2 | 1.2 | 6.3 | 1 | 34.2 | 1.7 | ND | 5.8 | | 1.7 | | 101 | 7 |
| Res_543158_10_07_19 #100.csv | 10/7/2019 | 4:23:32 PM | #100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #101.csv | 10/7/2019 | 4:25:04 PM | #101 | 331 | | 6 19635 | 122 | ND | | 24 | | 5 18 | | 3 36 | | 2 ND | | | | 57.2 | | 1.4 | 299 | 3 | 11.7 | 1 | 168 | 3 | 5.1 | 1.4 | ND | | | ND | |
| Res_543158_10_07_19 #102.csv | 10/7/2019 | 4:31:16 PM | #102 | 407 | | 7 22418 | 134 | ND | | 15 | | 5 20 | | 3 48 | | 3 ND | | | | 50.2 | | 1.3 | 437 | 4 | 10.2 | 1 | 185 | 3 | 9.0 | 1.5 | ND | | | ND | |
| Res_543158_10_07_19 #103.csv | 10/7/2019 | 4:35:04 PM | #103 | 339 | | 6 20758 | 118 | ND | | 15 | | 4 17 | | 3 47 | | 2 ND | | | | 37.0 | | 1.1 | 509 | 4 | 10.3 | 0.9 | 173 | 3 | 5.3 | 1.3 | ND | | | ND | |
| Res_543158_10_07_19 #104.csv | 10/7/2019 | 4:40:42 PM | #104 | 415 | | 8 21535 | 146 | ND | | 29 | | 6 19 | | 3 58 | | 3 ND | | | | 45.7 | | 1.4 | 433 | 4 | 14.4 | 1.1 | 189 | 3 | 10.6 | 1.7 | ND | | | ND | |
| Res_543158_10_07_19 #105.csv | 10/7/2019 | 4:44:09 PM | #105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #106.csv | 10/7/2019 | 4:44:47 PM | #106 | 360 | | 16 22750 | 135 | ND | | 28 | | 5 16 | | 3 65 | | 3 ND | | | | 51.7 | | 1.3 | 429 | 3 | 10.0 | 1 | 220 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #107.csv | 10/7/2019 | 4:45:05 PM | #107 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #108.csv | 10/7/2019 | 4:45:41 PM | #108 | 333 | | 17 24820 | 150 | ND | | 17 | | 5 22 | | 3 49 | | 3 ND | | | | 85.5 | | 1.7 | 337 | 3 | 15.1 | 1.1 | 203 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #109.csv | 10/7/2019 | 4:46:23 PM | #109 | 313 | | 17 22138 | 141 | ND | | 30 | | 5 24 | | 3 44 | | 3 ND | | | | 57.4 | | 1.5 | 403 | 4 | 12.8 | 1.1 | 201 | 3 | 7.0 | 1.5 | ND | | | ND | |
| Res_543158_10_07_19 #11.csv | 10/7/2019 | 8:59:32 AM | #11 | 43 | | 4 10000 | 74 | ND | | ND | | 10 | | 3 ND | | 2.9 | | 1 | | 66.9 | | 1.4 | 41.9 | 1.1 | 5.9 | 1 | 37.1 | 1.7 | ND | ND | | | | 74 | 7 |
| Res_543158_10_07_19 #110.csv | 10/7/2019 | 4:47:11 PM | #110 | 344 | | 17 24597 | 152 | ND | | 21 | | 5 17 | | 3 56 | | 3 ND | | | | 50.6 | | 1.4 | 413 | 4 | 10.8 | 1 | 202 | 3 | 6.5 | 1.5 | ND | | | ND | |
| Res_543158_10_07_19 #111.csv | 10/7/2019 | 4:48:29 PM | #111 | 346 | | 17 24647 | 152 | ND | | 20 | | 5 24 | | 3 54 | | 3 ND | | | | 55.4 | | 1.4 | 366 | 3 | 11.4 | 1.1 | 195 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #112.csv | 10/7/2019 | 4:49:20 PM | #112 | 302 | | 17 21646 | 141 | ND | | 20 | | 5 19 | | 3 41 | | 3 ND | | | | 72.3 | | 1.6 | 243 | 3 | 10.6 | 1.1 | 167 | 3 | 5.9 | 1.6 | ND | | | ND | |
| Res_543158_10_07_19 #113.csv | 10/7/2019 | 4:50:03 PM | #113 | 315 | | 18 20715 | 141 | ND | | ND | | 15 | | 3 45 | | 3 ND | | | | 50.5 | | 1.5 | 461 | 4 | 11.5 | 1.1 | 197 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #114.csv | 10/7/2019 | 4:53:38 PM | #114 | 342 | | 17 22202 | 142 | ND | | ND | | 9 | | 3 48 | | 3 ND | | | | 48.0 | | 1.4 | 381 | 3 | 7.4 | 1 | 160 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #115.csv | 10/7/2019 | 4:54:19 PM | #115 | 281 | | 15 22056 | 131 | ND | | 23 | | 5 13 | | 3 54 | | 3 ND | | | | 50.5 | | 1.3 | 394 | 3 | 8.5 | 1 | 204 | 3 | 6.2 | 1.4 | ND | | | ND | |
| Res_543158_10_07_19 #12.csv | 10/7/2019 | 9:03:44 AM | #12 | 433 | | 7 20083 | 119 | ND | | 26 | | 5 22 | | 3 40 | | 2 ND | | | | 53.2 | | 1.3 | 262 | 3 | 9.1 | 0.9 | 134 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #13.csv | 10/7/2019 | 9:06:33 AM | #13 | 294 | | 5 14351 | 85 | ND | | 25 | | 4 16 | | 2 32 | | 2 ND | | | | 71.9 | | 1.3 | 184.0 | 1.9 | 11.4 | 0.9 | 125 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #14.csv | 10/7/2019 | 9:10:01 AM | #14 | 191 | | 13 12955 | 86 | ND | | ND | | 12 | | 2 25 | | 2 ND | | | | 74.9 | | 1.4 | 182 | 2 | 17.9 | 1 | 115 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #15.csv | 10/7/2019 | 9:11:37 AM | #15 | 210 | | 13 12943 | 86 | ND | | ND | | 18 | | 3 28 | | 2 ND | | | | 67.2 | | 1.4 | 168.2 | 2 | 12.6 | 1 | 109 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #16.csv | 10/7/2019 | 9:15:55 AM | #16 | 127 | | 4 9285 | 59 | ND | | ND | | 13 | | 2 11.1 | 1.5 | ND | | | | 126.2 | | 1.6 | 54.2 | 1 | 13.2 | 0.9 | 73.8 | 1.6 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #17.csv | 10/7/2019 | 9:17:32 AM | #17 | 116 | | 4 9285 | 60 | ND | | ND | | 15 | | 2 7.7 | 1.5 | 2.0 | | 1 | | 124.7 | | 1.6 | 51.5 | 1 | 12.9 | 0.9 | 73.2 | 1.7 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #18.csv | 10/7/2019 | 9:20:25 AM | #18 | 284 | | 14 18184 | 108 | ND | | 28 | | 4 19 | | 3 34 | | 2 2.2 | | 1 | | 61.4 | | 1.3 | 309 | 3 | 13.2 | 1 | 175 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #19.csv | 10/7/2019 | 9:21:03 AM | #19 | 154 | | 21 12662 | 148 | ND | | ND | | ND | | 29 | | 4 ND | | | | 59 | | 2 | 167 | 3 | 7.1 | 1.6 | 142 | 4 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #2.csv | 10/7/2019 | 8:46:49 AM | #2 | 411 | | 6 21585 | 114 | ND | | 19 | | 4 19 | | 2 48 | | 2 ND | | | | 50.7 | | 1.1 | 219 | 2 | 9.7 | 0.9 | 134 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #20.csv | 10/7/2019 | 9:22:34 AM | #20 | 243 | | 5 12622 | 76 | ND | | 21 | | 4 12 | | 2 24.9 | 1.9 | ND | | | | 59.8 | | 1.2 | 168.1 | 1.8 | 10.4 | 0.9 | 143 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #21.csv | 10/7/2019 | 9:24:03 AM | #21 | 66 | | 13 14195 | 118 | ND | | ND | | ND | | ND | | 3.3 | | 1 | | 110 | | 2 | 35.4 | 1.3 | 19.1 | 1.4 | 113 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #22.csv | 10/7/2019 | 9:25:27 AM | #22 | 69 | | 3 14335 | 80 | ND | | ND | | 9 | | 2 ND | | 3.1 | | 1 | | 112.1 | | 1.5 | 35.2 | 0.9 | 16.9 | 0.9 | 114.9 | 1.8 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #23.csv | 10/7/2019 | 9:29:38 AM | #23 | 86 | | 4 2437 | 30 | ND | | 15 | | 4 10 | | 2 ND | | ND | | | | 140.5 | | 1.9 | 56.9 | 1.2 | 5.9 | 1 | 69.7 | 1.8 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #24.csv | 10/7/2019 | 9:31:43 AM | #24 | 342 | | 8 23754 | 137 | ND | | 16 | | 4 21 | | 3 45 | | 2 ND | | | | 70.3 | | 1.4 | 343 | 3 | 10.0 | 1 | 169 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #25.csv | 10/7/2019 | 9:36:10 AM | #25 | 310 | | 5 21795 | 117 | ND | | 18 | | 4 16 | | 2 42 | | 2 ND | | | | 80.0 | | 1.4 | 327 | 3 | 7.8 | 0.9 | 185 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #26.csv | 10/7/2019 | 9:42:51 AM | #26 | 459 | | 7 23750 | 139 | ND | | 21 | | 5 17 | | 3 59 | | 3 ND | | | | 63.7 | | 1.4 | 324 | 3 | 12.7 | 1 | 180 | 3 | 6.5 | 1.4 | ND | | | ND | |
| Res_543158_10_07_19 #27.csv | 10/7/2019 | 9:45:10 AM | #27 | 73 | | 3 4446 | 38 | ND | | ND | | ND | | ND | | 2.1 | | 1 | | 129.8 | | 1.6 | 48.9 | 1 | 8.0 | 0.9 | 73.0 | 1.7 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #28.csv | 10/7/2019 | 9:47:29 AM | #28 | 34 | | 9 11630 | 78 | ND | | ND | | ND | | ND | | ND | | | | 104.7 | | 1.6 | 20.2 | 0.8 | 6.8 | 1 | 83.8 | 1.9 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #29.csv | 10/7/2019 | 9:47:55 AM | #29 | ND | | 10046 | 137 | ND | | ND | | ND | | ND | | ND | | | | 121 | | 3 | 21.3 | 1.6 | 9.3 | 2 | 88 | 4 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #30.csv | 10/7/2019 | 9:49:19 AM | #30 | 87 | | 4 9930 | 65 | ND | | ND | | 10 | | 2 ND | | ND | | | | 120.9 | | 1.6 | 17.1 | 0.7 | 10.2 | 0.9 | 90.8 | 1.8 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #31.csv | 10/7/2019 | 9:50:56 AM | #31 | 369 | | 24 21302 | 188 | ND | | ND | | 16 | | 4 47 | | 4 ND | | | | 51.3 | | 1.9 | 403 | 5 | 11.8 | 1.5 | 168 | 4 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #32.csv | 10/7/2019 | 9:51:21 AM | #32 | 328 | | 18 21306 | 149 | ND | | 25 | | 5 14 | | 3 44 | | 3 ND | | | | 50.2 | | 1.5 | 413 | 4 | 11.6 | 1.2 | 178 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #33.csv | 10/7/2019 | 9:52:47 AM | #33 | 353 | | 6 20980 | 109 | ND | | 18 | | 4 18 | | 2 37 | | 2 ND | | | | 51.4 | | 1.1 | 409 | 3 | 13.3 | 0.9 | 171 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #34.csv | 10/7/2019 | 9:59:41 AM | #34 | 179 | | 12 13717 | 86 | ND | | 12 | | 4 9 | | 2 23.7 | 1.9 | ND | | | | 63.0 | | 1.3 | 260 | 2 | 11.6 | 0.9 | 135 | 2 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #35.csv | 10/7/2019 | 10:00:39 AM | #35 | 255 | | 14 18953 | 115 | ND | | ND | | 18 | | 3 36 | | 2 ND | | | | 50.9 | | 1.3 | 381 | 3 | 11.8 | 1 | 186 | 3 | ND | ND | | | | ND | |
| Res_543158_10_07_19 #36.csv | 10/7/2019 | 10:02:26 AM | #36 | 269 | | 14 18626 | 110 | ND | | 13 | | 4 13 | | 3 37 | | 2 ND | | | | 47.8 | | 1.2 | 378 | 3 | 13.8 | 1 | 185 | 3 | 5.6 | 1.4 | ND | | | ND | |
| Res_543158_10_07_19 #37.csv | 10/7/2019 | 10:06:30 AM | #37 | 272 | | 5 16659 | 94 | ND | | 19 | | 4 15 | | 2 40 | | 2 ND | | | | 34.5 | | 1 | 344 | 3 | 8.3 | 0.8 | 143 | 2 | ND | ND | | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_07_19 #38.csv | 10/7/2019 | 10:10:20 AM | #38 | 339 | 6 | 20274 | 114 | ND | | ND | | 9 | 2 | 47 | 2 | ND | | | | 38.5 | 1.1 | 440 | 3 | 10.1 | 0.9 | 169 | 3 | 4.9 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #39.csv | 10/7/2019 | 10:13:35 AM | #39 | 69 | 3 | 3559 | 33 | ND | | ND | | ND | | ND | | 2.1 | | 1 | | 112.2 | 1.5 | 31.9 | 0.8 | 6.5 | 0.9 | 68.6 | 1.6 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #4.csv | 10/7/2019 | 8:49:44 AM | #4 | 173 | 16 | 35659 | 219 | ND | | 24 | 5 | 15 | 3 | 17 | 2 | 4.2 | | 1 | | 93.2 | 1.8 | 142 | 2 | 6.2 | 1.1 | 69 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #40.csv | 10/7/2019 | 10:15:06 AM | #40 | 82 | 3 | 3753 | 33 | ND | | ND | | 9 | 2 | 4.0 | 1.3 | 1.7 | | 1 | | 115.9 | 1.5 | 32.2 | 0.8 | 6.0 | 0.9 | 68.0 | 1.6 | ND | | ND | | | | 21 | 6 |
| Res_543158_10_07_19 #41.csv | 10/7/2019 | 10:24:05 AM | #41 | 406 | 7 | 20184 | 117 | ND | | 17 | 4 | 18 | 3 | 42 | 2 | ND | | | | 64.5 | 1.4 | 286 | 3 | 14.9 | 1 | 178 | 3 | 5.0 | 1.4 | ND | | | | ND | |
| Res_543158_10_07_19 #42.csv | 10/7/2019 | 10:27:48 AM | #42 | 246 | 5 | 10680 | 71 | ND | | ND | | 16 | 2 | 18.0 | 1.8 | ND | | | | 64.0 | 1.3 | 151.5 | 1.8 | 11.1 | 0.9 | 107 | 2 | 4.3 | 1.3 | ND | | | | 20 | 6 |
| Res_543158_10_07_19 #43.csv | 10/7/2019 | 10:33:40 AM | #43 | 77 | 3 | 8961 | 59 | ND | | ND | | 19 | 2 | 4.7 | 1.4 | 2.5 | | 1 | | 150.4 | 1.8 | 93.7 | 1.3 | 9.9 | 1 | 81.0 | 1.7 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #44.csv | 10/7/2019 | 10:36:38 AM | #44 | 38 | 10 | 12814 | 86 | ND | | ND | | 10 | 2 | 5.3 | 1.6 | 2.4 | | 1 | | 123.2 | 1.8 | 57.8 | 1.2 | 6.6 | 1 | 56.1 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #45.csv | 10/7/2019 | 10:38:18 AM | #45 | 94 | 4 | 8929 | 59 | ND | | 12 | 4 | 14 | 2 | 5.1 | 1.4 | 2.2 | | 1 | | 129.5 | 1.7 | 52.4 | 1 | 14.2 | 1 | 80.3 | 1.7 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #46.csv | 10/7/2019 | 10:41:10 AM | #46 | 553 | 9 | 32471 | 192 | ND | | 41 | 5 | 22 | 3 | 50 | 3 | ND | | | | 63.4 | 1.5 | 341 | 3 | 18.0 | 1.1 | 255 | 3 | 11.4 | 1.6 | ND | | | | ND | |
| Res_543158_10_07_19 #47.csv | 10/7/2019 | 10:45:08 AM | #47 | 501 | 7 | 28168 | 150 | ND | | 39 | 5 | 25 | 3 | 45 | 2 | ND | | | | 64.9 | 1.3 | 331 | 3 | 17.8 | 1 | 232 | 3 | 6.3 | 1.4 | ND | | | | ND | |
| Res_543158_10_07_19 #48.csv | 10/7/2019 | 10:50:22 AM | #48 | 469 | 7 | 29336 | 150 | ND | | 31 | 4 | 26 | 3 | 54 | 2 | ND | | | | 59.1 | 1.3 | 402 | 3 | 14.4 | 0.9 | 244 | 3 | 7.2 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #49.csv | 10/7/2019 | 10:56:29 AM | #49 | 522 | 7 | 26421 | 136 | ND | | 27 | 4 | 20 | 3 | 51 | 2 | ND | | | | 54.7 | 1.2 | 334 | 3 | 12.1 | 0.9 | 188 | 2 | 7.0 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #5.csv | 10/7/2019 | 8:49:58 AM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #50.csv | 10/7/2019 | 11:02:37 AM | #50 | 402 | 6 | 21876 | 120 | ND | | 24 | 4 | 10 | 2 | 50 | 2 | ND | | | | 41.7 | 1.1 | 470 | 3 | 11.5 | 0.9 | 150 | 2 | 4.0 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #52.csv | 10/7/2019 | 11:04:52 AM | #52 | 410 | 6 | 24958 | 128 | ND | | 43 | 4 | 19 | 2 | 55 | 2 | ND | | | | 53.3 | 1.2 | 433 | 3 | 13.3 | 0.9 | 234 | 3 | 4.5 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #53.csv | 10/7/2019 | 11:06:57 AM | #53 | 196 | 5 | 18449 | 104 | ND | | ND | | 12 | 2 | 48 | 2 | ND | | | | 36.2 | 1 | 351 | 3 | 5.8 | 0.8 | 140 | 2 | 5.4 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #54.csv | 10/7/2019 | 11:31:04 AM | #54 | 402 | 7 | 17785 | 112 | ND | | 17 | 5 | 14 | 3 | 45 | 3 | ND | | | | 82.0 | 1.6 | 193 | 2 | 8.7 | 1 | 159 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #55.csv | 10/7/2019 | 11:35:15 AM | #55 | 394 | 7 | 25100 | 146 | ND | | 27 | 5 | 22 | 3 | 40 | 2 | ND | | | | 65.4 | 1.4 | 281 | 3 | 9.9 | 1 | 200 | 3 | 5.3 | 1.4 | ND | | | | ND | |
| Res_543158_10_07_19 #56.csv | 10/7/2019 | 11:38:09 AM | #56 | 102 | 5 | 11632 | 85 | ND | | ND | | 21 | 3 | 13.4 | 1.9 | ND | | | | 72.1 | 1.5 | 44.9 | 1.2 | 4.6 | 1 | 33.9 | 1.7 | ND | | ND | | | | 40 | 7 |
| Res_543158_10_07_19 #57.csv | 10/7/2019 | 11:48:36 AM | #57 | 378 | 18 | 24229 | 152 | ND | | 31 | 5 | 34 | 3 | 28 | 2 | ND | | | | 83.6 | 1.7 | 187 | 2 | 10.9 | 1.1 | 152 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #58.csv | 10/7/2019 | 11:49:37 AM | #58 | 431 | 21 | 26064 | 176 | ND | | 34 | 6 | 26 | 3 | 52 | 3 | ND | | | | 61.6 | 1.6 | 367 | 4 | 16.5 | 1.2 | 197 | 3 | 7.2 | 1.7 | ND | | | | ND | |
| Res_543158_10_07_19 #59.csv | 10/7/2019 | 11:50:16 AM | #59 | 439 | 18 | 24530 | 148 | ND | | 45 | 5 | 25 | 3 | 58 | 3 | ND | | | | 55.1 | 1.4 | 424 | 4 | 11.3 | 1 | 227 | 3 | 5.2 | 1.5 | ND | | | | ND | |
| Res_543158_10_07_19 #6.csv | 10/7/2019 | 8:51:31 AM | #6 | 283 | 5 | 16966 | 95 | ND | | 24 | 4 | 10 | 2 | 32 | 2 | ND | | | | 73.8 | 1.3 | 212 | 2 | 13.8 | 0.9 | 137 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #60.csv | 10/7/2019 | 11:51:24 AM | #60 | 379 | 18 | 22591 | 141 | ND | | 27 | 5 | 25 | 3 | 57 | 3 | ND | | | | 56.6 | 1.4 | 471 | 4 | 11.8 | 1.1 | 186 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #61.csv | 10/7/2019 | 11:52:14 AM | #61 | 285 | 15 | 23588 | 139 | ND | | 37 | 5 | 34 | 3 | 35 | 2 | 3.3 | | 1 | | 68.8 | 1.4 | 199 | 2 | 9.9 | 1 | 170 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #62.csv | 10/7/2019 | 11:53:00 AM | #62 | 332 | 16 | 21301 | 130 | ND | | 28 | 5 | 20 | 3 | 48 | 3 | ND | | | | 50.1 | 1.3 | 479 | 4 | 10.2 | 1 | 157 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #63.csv | 10/7/2019 | 11:54:30 AM | #63 | 304 | 18 | 23807 | 157 | ND | | ND | | 21 | 3 | 46 | 3 | ND | | | | 57.7 | 1.5 | 422 | 4 | 10.6 | 1.1 | 224 | 3 | 6.4 | 1.6 | ND | | | | ND | |
| Res_543158_10_07_19 #64.csv | 10/7/2019 | 11:55:20 AM | #64 | 367 | 18 | 22927 | 144 | ND | | 24 | 5 | 18 | 3 | 45 | 3 | ND | | | | 66.5 | 1.5 | 359 | 3 | 12.0 | 1.1 | 178 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #65.csv | 10/7/2019 | 11:57:20 AM | #65 | 440 | 20 | 26582 | 170 | ND | | 28 | 5 | 32 | 3 | 48 | 3 | ND | | | | 76.9 | 1.7 | 390 | 4 | 12.0 | 1.2 | 240 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #66.csv | 10/7/2019 | 12:03:20 PM | #66 | 67 | 12 | 3334 | 44 | ND | | ND | | 95 | 5 | 19 | 2 | ND | | | | 148 | 2 | 185 | 3 | 13.7 | 1.4 | 99 | 3 | ND | | 9 | | 2 | | ND | |
| Res_543158_10_07_19 #67.csv | 10/7/2019 | 2:12:24 PM | #67 | 430 | 19 | 21698 | 139 | ND | | ND | | 13 | 3 | 62 | 3 | ND | | | | 30.4 | 1.2 | 433 | 4 | 9.4 | 1 | 118 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #68.csv | 10/7/2019 | 2:13:09 PM | #68 | 352 | 18 | 23504 | 153 | ND | | ND | | 11 | 3 | 48 | 3 | ND | | | | 34.3 | 1.3 | 573 | 5 | 7.4 | 1 | 176 | 3 | 9.2 | 1.6 | ND | | | | ND | |
| Res_543158_10_07_19 #69.csv | 10/7/2019 | 2:13:51 PM | #69 | 321 | 18 | 38912 | 223 | ND | | ND | | 23 | 3 | 18 | 2 | ND | | | | 37.4 | 1.2 | 328 | 3 | 5.3 | 1 | 190 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #7.csv | 10/7/2019 | 8:53:49 AM | #7 | 271 | 5 | 14717 | 85 | ND | | 20 | 4 | 14 | 2 | 33 | 2 | 2.8 | | 1 | | 68.1 | 1.3 | 208.0 | 2 | 12.0 | 0.9 | 153 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #70.csv | 10/7/2019 | 2:14:58 PM | #70 | 436 | 18 | 23872 | 143 | ND | | 34 | 5 | 23 | 3 | 54 | 3 | ND | | | | 60.3 | 1.4 | 465 | 4 | 14.3 | 1.1 | 190 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #71.csv | 10/7/2019 | 2:15:41 PM | #71 | 349 | 18 | 22436 | 150 | ND | | 18 | 5 | 12 | 3 | 50 | 3 | ND | | | | 72.9 | 1.7 | 344 | 3 | 14.0 | 1.2 | 146 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #72.csv | 10/7/2019 | 2:16:48 PM | #72 | 371 | 18 | 23429 | 151 | ND | | ND | | 13 | 3 | 54 | 3 | ND | | | | 47.9 | 1.4 | 433 | 4 | 11.3 | 1.1 | 202 | 3 | 7.1 | 1.6 | ND | | | | ND | |
| Res_543158_10_07_19 #73.csv | 10/7/2019 | 2:18:14 PM | #73 | 270 | 15 | 19441 | 123 | ND | | 22 | 5 | 26 | 3 | 26 | 2 | ND | | | | 79.8 | 1.6 | 180 | 2 | 16.2 | 1.1 | 164 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #74.csv | 10/7/2019 | 2:18:37 PM | #74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #75.csv | 10/7/2019 | 2:19:15 PM | #75 | 293 | 16 | 18467 | 118 | ND | | 43 | 5 | 38 | 3 | 31 | 2 | 4.7 | 1 | | | 85.6 | 1.6 | 254 | 3 | 15.3 | 1.1 | 193 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #76.csv | 10/7/2019 | 2:32:16 PM | #76 | 170 | 4 | 12487 | 73 | ND | | 20 | 4 | 14 | 2 | 10.1 | 1.5 | 2.4 | 1 | | | 120.2 | 1.6 | 139.7 | 1.6 | 3.9 | 0.9 | 44.9 | 1.5 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #77.csv | 10/7/2019 | 2:34:27 PM | #77 | 190 | 4 | 18279 | 96 | ND | | 55 | 4 | 21 | 2 | 16.9 | 1.6 | 5.5 | 1 | | | 88.0 | 1.3 | 116.4 | 1.4 | ND | 39.7 | | 1.5 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #78.csv | 10/7/2019 | 2:40:41 PM | #78 | 62 | 11 | 15206 | 102 | ND | | ND | | 16 | 3 | 6.0 | 1.7 | 3.5 | 1 | | | 144 | 2 | 160 | 2 | 5.8 | 1.1 | 63 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #79.csv | 10/7/2019 | 2:40:48 PM | #79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #8.csv | 10/7/2019 | 8:56:15 AM | #8 | 45 | 9 | 8646 | 65 | ND | | ND | | 10 | 2 | ND | | 2.5 | 1 | | | 65.2 | 1.4 | 37.9 | 1 | 7.8 | 0.9 | 47.6 | 1.7 | ND | | 5.2 | | 1.7 | | 59 | 7 |
| Res_543158_10_07_19 #80.csv | 10/7/2019 | 2:41:27 PM | #80 | 143 | 21 | 113773 | 678 | ND | | ND | | 167 | 6 | 28 | 3 | 2.9 | 1 | | | 57.9 | 1.7 | 101.2 | 1.9 | 5.1 | 1.2 | 159 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #81.csv | 10/7/2019 | 2:43:00 PM | #81 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #82.csv | 10/7/2019 | 2:43:20 PM | #82 | 467 | 31 | 24218 | 243 | ND | | ND | | 30 | 5 | 59 | 5 | ND | | | | 51 | 2 | 485 | 6 | 11.7 | 1.7 | 269 | 6 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #83.csv | 10/7/2019 | 2:43:55 PM | #83 | 455 | 19 | 24514 | 155 | ND | | 33 | 5 | 21 | 3 | 55 | 3 | ND | | | | 48.5 | 1.4 | 488 | 4 | 12.6 | 1.1 | 265 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #84.csv | 10/7/2019 | 3:14:53 PM | #84 | 351 | 17 | 26713 | 158 | ND | | 34 | 5 | 21 | 3 | 45 | 3 | ND | | | | 43.5 | 1.3 | 432 | 4 | 9.2 | 1 | 173 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #85.csv | 10/7/2019 | 3:15:39 PM | #85 | 534 | 20 | 27628 | 167 | ND | | 26 | 5 | 24 | 3 | 62 | 3 | ND | | | | 52.6 | 1.4 | 496 | 4 | 14.5 | 1.1 | 229 | 3 | 5.6 | 1.5 | ND | | | | ND | |
| Res_543158_10_07_19 #86.csv | 10/7/2019 | 3:16:27 PM | #86 | 422 | 18 | 32263 | 184 | ND | | 19 | 5 | 15 | 3 | 60 | 3 | ND | | | | 36.2 | 1.2 | 523 | 4 | 7.5 | 1 | 192 | 3 | 6.0 | 1.5 | ND | | | | ND | |
| Res_543158_10_07_19 #87.csv | 10/7/2019 | 3:33:49 PM | #87 | 357 | 18 | 27095 | 166 | ND | | 31 | 5 | 19 | 3 | 51 | 3 | ND | | | | 59.6 | 1.5 | 417 | 4 | 7.7 | 1 | 186 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #88.csv | 10/7/2019 | 3:34:31 PM | #88 | 287 | 16 | 23831 | 149 | ND | | ND | | 14 | 3 | 39 | 3 | ND | | | | 28.0 | 1.2 | 492 | 4 | 6.8 | 1 | 149 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #89.csv | 10/7/2019 | 3:48:51 PM | #89 | ND | | 9432 | 48 | 389 | 15 | ND | | 68 | 3 | 9057 | 34 | ND | | | | 4.3 | 0.5 | 17.7 | 0.6 | 9.4 | 0.6 | 13.2 | 1 | ND | | ND | | | | 43 | 4 |
| Res_543158_10_07_19 #9.csv | 10/7/2019 | 8:56:43 AM | #9 | ND | | 8430 | 113 | ND | | ND | | ND | | ND | | ND | | | | 67 | 2 | 37.8 | 1.8 | 7.8 | 1.7 | 56 | 3 | ND | | ND | | | | 47 | 12 |
| Res_543158_10_07_19 #90.csv | 10/7/2019 | 3:50:17 PM | #90 | 63.0 | 1.9 | 9656 | 46 | 437 | 14 | ND | | 70 | 3 | 9301 | 32 | ND | | | | 4.2 | 0.5 | 18.6 | 0.5 | 8.9 | 0.6 | 11.9 | 1 | ND | | ND | | | | 49 | 3 |
| Res_543158_10_07_19 #91.csv | 10/7/2019 | 3:53:12 PM | #91 | 76 | 3 | 5393 | 46 | 52 | 14 | ND | | 65 | 3 | 1813 | 14 | ND | | | | 13.3 | 0.8 | 85.5 | 1.4 | 10.0 | 0.9 | 42.4 | 1.7 | 4.5 | 1.3 | ND | | | | 57 | 5 |
| Res_543158_10_07_19 #92.csv | 10/7/2019 | 3:57:14 PM | #92 | 446 | 7 | 27723 | 159 | ND | | 16 | 5 | 28 | 3 | 58 | 3 | ND | | | | 52.7 | 1.3 | 408 | 3 | 12.7 | 1 | 179 | 3 | 8.9 | 1.5 | ND | | | | ND | |
| Res_543158_10_07_19 #93.csv | 10/7/2019 | 4:03:41 PM | #93 | 471 | 7 | 23006 | 125 | ND | | 28 | 4 | 16 | 3 | 53 | 2 | ND | | | | 32.6 | 1.1 | 485 | 3 | 8.3 | 0.9 | 167 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #94.csv | 10/7/2019 | 4:09:24 PM | #94 | 350 | 6 | 26150 | 143 | ND | | ND | | 17 | 3 | 67 | 3 | ND | | | | 32.5 | 1.1 | 263 | 2 | 22.0 | 1 | 194 | 3 | 5.9 | 1.4 | ND | | | | ND | |
| Res_543158_10_07_19 #95.csv | 10/7/2019 | 4:13:34 PM | #95 | 430 | 17 | 26566 | 143 | ND | | 19 | 4 | 17 | 3 | 57 | 3 | ND | | | | 41.6 | 1.2 | 544 | 4 | 10.2 | 0.9 | 245 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #96.csv | 10/7/2019 | 4:15:11 PM | #96 | 387 | 6 | 25013 | 134 | ND | | 22 | 4 | 21 | 3 | 53 | 2 | ND | | | | 50.7 | 1.2 | 385 | 3 | 8.7 | 0.9 | 181 | 3 | 3.9 | 1.3 | ND | | | | ND | |
| Res_543158_10_07_19 #97.csv | 10/7/2019 | 4:15:56 PM | #97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #98.csv | 10/7/2019 | 4:17:26 PM | #98 | 413 | 6 | 24475 | 130 | ND | | 27 | 4 | 22 | 3 | 50 | 2 | ND | | | | 53.8 | 1.2 | 366 | 3 | 8.5 | 0.9 | 165 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_07_19 #99.csv | 10/7/2019 | 4:23:16 PM | #99 | 555 | 7 | 19846 | 113 | ND | | 21 | 4 | 19 | 3 | 33 | 2 | ND | | | | 52.5 | 1.2 | 357 | 3 | 11.0 | 0.9 | 170 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_08_19 #1.csv | 10/8/2019 | 7:22:48 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #10.csv | 10/8/2019 | 9:01:20 AM | #10 | 284 | 5 | 11449 | 73 | ND | | 64 | 5 | 26 | 3 | 27.4 | 2 | 5.3 | 1 | | | 59.3 | 1.2 | 100.1 | 1.4 | 5.8 | 0.8 | 105.9 | 1.9 | ND | | ND | | | | ND | |
| Res_543158_10_08_19 #11.csv | 10/8/2019 | 9:05:55 AM | #11 | 352 | 18 | 20012 | 133 | ND | | ND | | 16 | 3 | 49 | 3 | ND | | | | 44.1 | 1.4 | 402 | 4 | 11.5 | 1.1 | 210 | 3 | 5.5 | 1.6 | ND | | | | ND | |
| Res_543158_10_08_19 #12.csv | 10/8/2019 | 9:09:33 AM | #12 | 277 | 16 | 26863 | 158 | ND | | 18 | 5 | 22 | 3 | 29 | 2 | 2.4 | 1 | | | 52.1 | 1.3 | 300 | 3 | 9.5 | 1 | 129 | 3 | ND | | ND | | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_08_19 #13.csv | 10/8/2019 | 9:11:11 AM | #13 | 531 | | 8 36425 | | 210 | ND | 43 | | 5 37 | | 3 59 | | 3 ND | | | | 62.1 | | 1.5 436 | | 4 19.8 | | 1.2 343 | | 4 9.6 | | 1.6 | ND | | | ND | |
| Res_543158_10_08_19 #14.csv | 10/8/2019 | 9:13:59 AM | #14 | 518 | | 8 32431 | | 182 | ND | 29 | | 5 32 | | 3 59 | | 3 ND | | | | 69.4 | | 1.5 397 | | 3 18.5 | | 1.1 222 | | 3 8.3 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #15.csv | 10/8/2019 | 9:17:19 AM | #15 | 538 | | 7 30815 | | 171 | ND | 39 | | 5 28 | | 3 53 | | 3 ND | | | | 63.1 | | 1.4 386 | | 3 16.7 | | 1.1 236 | | 3 8.0 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #16.csv | 10/8/2019 | 9:19:44 AM | #16 | 471 | | 7 30912 | | 160 | ND | 31 | | 4 24 | | 3 57 | | 3 ND | | | | 59.5 | | 1.3 447 | | 3 12.1 | | 0.9 224 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #17.csv | 10/8/2019 | 9:23:23 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #18.csv | 10/8/2019 | 9:24:03 AM | #18 | 399 | | 18 26337 | | 157 | ND | 36 | | 5 30 | | 3 48 | | 3 ND | | | | 63.4 | | 1.5 408 | | 3 15.9 | | 1.1 220 | | 3 6.6 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #19.csv | 10/8/2019 | 9:36:21 AM | #19 | 352 | | 19 29884 | | 192 | ND | 42 | | 6 20 | | 3 47 | | 3 ND | | | | 67.8 | | 1.7 364 | | 4 12.3 | | 1.2 185 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #2.csv | 10/8/2019 | 8:07:31 AM | #2 | 320 | | 17 21926 | | 141 | ND | ND | | 19 | | 3 55 | | 3 ND | | | | 40.3 | | 1.3 481 | | 4 11.3 | | 1.1 191 | | 3 6.8 | | 1.6 | ND | | | ND | |
| Res_543158_10_08_19 #20.csv | 10/8/2019 | 9:38:09 AM | #20 | 391 | | 6 23265 | | 125 | ND | 23 | | 4 15 | | 2 51 | | 2 ND | | | | 48.5 | | 1.2 389 | | 3 11.0 | | 0.9 221 | | 3 4.3 | | 1.3 | ND | | | ND | |
| Res_543158_10_08_19 #21.csv | 10/8/2019 | 9:41:45 AM | #21 | 358 | | 6 21716 | | 114 | ND | 21 | | 4 17 | | 2 58 | | 2 ND | | | | 60.8 | | 1.2 342 | | 3 11.6 | | 0.9 200 | | 2 4.5 | | 1.2 | ND | | | ND | |
| Res_543158_10_08_19 #22.csv | 10/8/2019 | 9:43:10 AM | #22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #23.csv | 10/8/2019 | 9:44:37 AM | #23 | 293 | | 5 22935 | | 123 | ND | 18 | | 4 17 | | 2 56 | | 2 ND | | | | 45.1 | | 1.1 454 | | 3 10.0 | | 0.9 269 | | 3 6.0 | | 1.3 | ND | | | ND | |
| Res_543158_10_08_19 #24.csv | 10/8/2019 | 9:48:12 AM | #24 | 331 | | 5 20711 | | 114 | ND | 16 | | 4 21 | | 3 49 | | 2 ND | | | | 52.1 | | 1.2 372 | | 3 11.2 | | 0.9 180 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #25.csv | 10/8/2019 | 9:53:04 AM | #25 | 372 | | 6 25605 | | 136 | ND | 33 | | 4 21 | | 3 58 | | 3 ND | | | | 49.5 | | 1.2 464 | | 3 10.8 | | 0.9 211 | | 3 5.9 | | 1.3 | ND | | | ND | |
| Res_543158_10_08_19 #26.csv | 10/8/2019 | 9:56:31 AM | #26 | 334 | | 6 21659 | | 118 | ND | 36 | | 4 14 | | 2 49 | | 2 ND | | | | 47.5 | | 1.2 514 | | 4 8.6 | | 0.9 174 | | 3 4.2 | | 1.3 | ND | | | ND | |
| Res_543158_10_08_19 #27.csv | 10/8/2019 | 9:59:10 AM | #27 | 414 | | 6 25730 | | 131 | ND | 34 | | 4 21 | | 3 64 | | 3 ND | | | | 47.8 | | 1.1 492 | | 3 10.1 | | 0.9 203 | | 3 5.1 | | 1.3 | ND | | | ND | |
| Res_543158_10_08_19 #28.csv | 10/8/2019 | 10:01:35 AM | #28 | 354 | | 6 23003 | | 123 | ND | 43 | | 5 21 | | 3 56 | | 2 ND | | | | 47.8 | | 1.2 576 | | 4 9.1 | | 0.9 281 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #29.csv | 10/8/2019 | 10:04:27 AM | #29 | 462 | | 7 28306 | | 159 | ND | 37 | | 5 32 | | 3 52 | | 3 ND | | | | 68.7 | | 1.4 386 | | 3 17.0 | | 1.1 223 | | 3 5.6 | | 1.4 | ND | | | ND | |
| Res_543158_10_08_19 #3.csv | 10/8/2019 | 8:21:14 AM | #3 | 458 | | 19 30577 | | 181 | ND | 37 | | 5 24 | | 3 50 | | 3 ND | | | | 68.3 | | 1.5 429 | | 4 16.7 | | 1.1 212 | | 3 6.6 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #30.csv | 10/8/2019 | 10:08:04 AM | #30 | 420 | | 6 20472 | | 111 | ND | 23 | | 4 22 | | 3 86 | | 3 ND | | | | 47.8 | | 1.1 405 | | 3 10.8 | | 0.9 212 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #31.csv | 10/8/2019 | 12:46:14 PM | #31 | 324 | | 23 15321 | | 145 | ND | ND | | 51 | | 5 64 | | 4 ND | | | | 61 | | 2 410 | | 5 17.1 | | 1.6 172 | | 4 16 | | 2 16 | | 3 | | ND | |
| Res_543158_10_08_19 #32.csv | 10/8/2019 | 12:47:19 PM | #32 | 276 | | 19 14674 | | 122 | ND | 26 | | 6 42 | | 4 80 | | 4 ND | | | | 61.9 | | 1.8 399 | | 4 11.8 | | 1.3 141 | | 3 8.3 | | 1.8 | ND | | | ND | |
| Res_543158_10_08_19 #33.csv | 10/8/2019 | 12:48:15 PM | #33 | 291 | | 17 15673 | | 118 | ND | 19 | | 5 47 | | 4 78 | | 4 ND | | | | 58.5 | | 1.6 350 | | 4 11.9 | | 1.2 151 | | 3 8.2 | | 1.7 | ND | | | ND | |
| Res_543158_10_08_19 #34.csv | 10/8/2019 | 12:49:06 PM | #34 | 66 | | 12 5304 | | 56 | ND | ND | | 35 | | 4 23 | | 2 2.6 | | 1 | | 59.7 | | 1.5 46.2 | | 1.3 4.2 | | 1.1 92 | | 2 8.6 | | 1.6 8.2 | | 2 | | ND | |
| Res_543158_10_08_19 #35.csv | 10/8/2019 | 1:05:48 PM | #35 | 731 | | 26 24155 | | 174 | ND | 53 | | 7 33 | | 4 70 | | 4 ND | | | | 75.1 | | 1.8 291 | | 3 16.2 | | 1.4 230 | | 4 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #36.csv | 10/8/2019 | 1:06:31 PM | #36 | 1822 | | 38 49448 | | 304 | ND | 44 | | 6 33 | | 4 80 | | 4 ND | | | | 80.3 | | 1.8 245 | | 3 19.5 | | 1.3 175 | | 3 7.5 | | 1.7 | ND | | | ND | |
| Res_543158_10_08_19 #37.csv | 10/8/2019 | 1:07:29 PM | #37 | 608 | | 23 22710 | | 158 | ND | 35 | | 6 35 | | 4 47 | | 3 ND | | | | 65.4 | | 1.7 250 | | 3 13.6 | | 1.2 182 | | 3 7.3 | | 1.7 | ND | | | 27 | 8 |
| Res_543158_10_08_19 #38.csv | 10/8/2019 | 1:07:38 PM | #38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #39.csv | 10/8/2019 | 1:08:15 PM | #39 | 376 | | 19 16456 | | 122 | ND | 26 | | 5 20 | | 3 38 | | 3 ND | | | | 60.0 | | 1.6 190 | | 2 7.1 | | 1.1 109 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #4.csv | 10/8/2019 | 8:22:53 AM | #4 | 466 | | 7 29131 | | 162 | ND | 40 | | 5 26 | | 3 57 | | 3 ND | | | | 55.4 | | 1.3 470 | | 4 15.5 | | 1 239 | | 3 6.4 | | 1.4 | ND | | | ND | |
| Res_543158_10_08_19 #40.csv | 10/8/2019 | 1:08:55 PM | #40 | 509 | | 20 24647 | | 155 | ND | 38 | | 5 31 | | 3 62 | | 3 ND | | | | 77.4 | | 1.6 320 | | 3 16.9 | | 1.2 191 | | 3 5.9 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #41.csv | 10/8/2019 | 1:09:35 PM | #41 | 343 | | 18 28703 | | 179 | ND | 24 | | 5 56 | | 4 55 | | 3 ND | | | | 74.8 | | 1.7 297 | | 3 14.5 | | 1.2 201 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #42.csv | 10/8/2019 | 1:10:18 PM | #42 | 276 | | 18 29495 | | 193 | ND | 19 | | 5 46 | | 4 50 | | 3 ND | | | | 58.4 | | 1.6 221 | | 3 12.8 | | 1.2 160 | | 3 7.1 | | 1.7 | ND | | | ND | |
| Res_543158_10_08_19 #43.csv | 10/8/2019 | 1:11:08 PM | #43 | 142 | | 15 11589 | | 98 | ND | 33 | | 6 28 | | 4 16 | | 2 ND | | | | 60.0 | | 1.6 154 | | 2 8.5 | | 1.2 161 | | 3 ND | | 9 | | 2 | | ND | |
| Res_543158_10_08_19 #44.csv | 10/8/2019 | 1:11:58 PM | #44 | 1047 | | 25 18314 | | 117 | ND | 21 | | 5 32 | | 3 51 | | 3 ND | | | | 79.2 | | 1.6 213 | | 2 12.6 | | 1.1 166 | | 3 7.4 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #45.csv | 10/8/2019 | 1:15:09 PM | #45 | 445 | | 21 26585 | | 177 | ND | ND | | 44 | | 4 56 | | 3 ND | | | | 74.6 | | 1.7 222 | | 3 14.5 | | 1.2 196 | | 3 8.4 | | 1.7 | ND | | | ND | |
| Res_543158_10_08_19 #46.csv | 10/8/2019 | 1:15:58 PM | #46 | 423 | | 19 31964 | | 189 | ND | 22 | | 5 39 | | 3 56 | | 3 ND | | | | 70.8 | | 1.6 292 | | 3 13.9 | | 1.1 247 | | 3 13.0 | | 1.6 | ND | | | ND | |
| Res_543158_10_08_19 #47.csv | 10/8/2019 | 2:30:17 PM | #47 | 366 | | 19 26901 | | 173 | ND | ND | | 44 | | 4 52 | | 3 ND | | | | 134 | | 2 197 | | 2 7.1 | | 1.2 208 | | 3 9.7 | | 1.6 | ND | | | ND | |
| Res_543158_10_08_19 #48.csv | 10/8/2019 | 2:31:03 PM | #48 | 907 | | 28 22328 | | 161 | ND | 23 | | 6 15 | | 3 67 | | 3 ND | | | | 30.6 | | 1.4 512 | | 5 24.6 | | 1.3 71 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #49.csv | 10/8/2019 | 2:31:54 PM | #49 | 447 | | 22 28523 | | 200 | ND | 17 | | 6 21 | | 4 28 | | 3 ND | | | | 136 | | 2 150 | | 2 8.9 | | 1.3 151 | | 3 11.7 | | 1.8 | ND | | | ND | |
| Res_543158_10_08_19 #5.csv | 10/8/2019 | 8:27:37 AM | #5 | 483 | | 20 30263 | | 185 | ND | 23 | | 5 22 | | 3 53 | | 3 ND | | | | 55.3 | | 1.5 452 | | 4 17.0 | | 1.1 217 | | 3 5.7 | | 1.6 | ND | | | ND | |
| Res_543158_10_08_19 #51.csv | 10/8/2019 | 2:32:58 PM | #51 | 504 | | 21 34122 | | 210 | ND | ND | | 65 | | 4 50 | | 3 ND | | | | 126 | | 2 112.3 | | 1.8 7.2 | | 1.2 156 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #52.csv | 10/8/2019 | 3:19:09 PM | #52 | 332 | | 18 35400 | | 210 | ND | 15 | | 5 81 | | 4 57 | | 3 ND | | | | 72.9 | | 1.6 111.8 | | 1.8 8.7 | | 1.1 103 | | 2 12.8 | | 1.6 | ND | | | ND | |
| Res_543158_10_08_19 #53.csv | 10/8/2019 | 3:19:18 PM | #53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #54.csv | 10/8/2019 | 3:19:56 PM | #54 | 321 | | 20 38475 | | 251 | ND | 21 | | 6 46 | | 4 34 | | 3 ND | | | | 43.5 | | 1.5 256 | | 3 5.6 | | 1.1 150 | | 3 9.6 | | 1.8 | ND | | | ND | |
| Res_543158_10_08_19 #55.csv | 10/8/2019 | 3:20:38 PM | #55 | 161 | | 18 66803 | | 383 | ND | 43 | | 6 69 | | 4 39 | | 3 ND | | | | 46.0 | | 1.4 209 | | 3 5.3 | | 1.1 155 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #56.csv | 10/8/2019 | 3:21:46 PM | #56 | 341 | | 16 38141 | | 202 | ND | ND | | 29 | | 3 73 | | 3 ND | | | | 52.8 | | 1.3 190 | | 2 9.3 | | 0.9 180 | | 3 9.0 | | 1.4 | ND | | | ND | |
| Res_543158_10_08_19 #57.csv | 10/8/2019 | 3:22:25 PM | #57 | 197 | | 14 20908 | | 126 | ND | ND | | 37 | | 3 51 | | 3 ND | | | | 42.4 | | 1.2 238 | | 2 3.7 | | 0.9 145 | | 2 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #58.csv | 10/8/2019 | 3:23:15 PM | #58 | 369 | | 17 24239 | | 146 | ND | 30 | | 5 46 | | 3 57 | | 3 ND | | | | 67.4 | | 1.5 244 | | 3 18.5 | | 1.1 226 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #59.csv | 10/8/2019 | 3:23:54 PM | #59 | 458 | | 18 26065 | | 151 | ND | 35 | | 5 43 | | 3 58 | | 3 2.3 | | 1 | | 70.7 | | 1.5 256 | | 3 13.5 | | 1.1 215 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #6.csv | 10/8/2019 | 8:35:14 AM | #6 | 406 | | 7 27067 | | 153 | ND | 29 | | 5 24 | | 3 49 | | 3 ND | | | | 47.4 | | 1.3 427 | | 3 12.4 | | 1 186 | | 3 4.8 | | 1.4 | ND | | | ND | |
| Res_543158_10_08_19 #60.csv | 10/8/2019 | 3:24:51 PM | #60 | 403 | | 18 29440 | | 170 | ND | 25 | | 5 33 | | 3 31 | | 2 4.1 | | 1 | | 83.9 | | 1.6 242 | | 3 4.5 | | 1 111 | | 2 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #61.csv | 10/8/2019 | 3:25:38 PM | #61 | 582 | | 24 30402 | | 209 | ND | 29 | | 6 39 | | 4 59 | | 3 ND | | | | 63.3 | | 1.7 208 | | 3 14.0 | | 1.3 164 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #62.csv | 10/8/2019 | 3:26:45 PM | #62 | 174 | | 13 9833 | | 76 | ND | ND | | 23 | | 3 27 | | 2 ND | | | | 26.4 | | 1.1 162 | | 2 4.7 | | 0.9 124 | | 2 4.5 | | 1.5 | ND | | | ND | |
| Res_543158_10_08_19 #63.csv | 10/8/2019 | 3:27:43 PM | #63 | 104 | | 12 12248 | | 88 | ND | 27 | | 5 36 | | 3 18 | | 2 6.6 | | 1 | | 163 | | 2 161 | | 2 11.8 | | 1.2 253 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #64.csv | 10/8/2019 | 4:29:46 PM | #64 | 221 | | 14 18874 | | 113 | ND | ND | | 47 | | 3 36 | | 2 ND | | | | 55.2 | | 1.3 216 | | 2 12.5 | | 1 155 | | 2 4.3 | | 1.4 | ND | | | ND | |
| Res_543158_10_08_19 #65.csv | 10/8/2019 | 4:30:39 PM | #65 | 52 | | 10 9974 | | 76 | ND | 14 | | 5 24 | | 3 16.0 | | 1.9 ND | | | | 76.4 | | 1.6 135.6 | | 1.9 7.6 | | 1 194 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #7.csv | 10/8/2019 | 8:38:01 AM | #7 | 308 | | 16 23841 | | 143 | ND | 18 | | 5 16 | | 3 52 | | 3 ND | | | | 43.3 | | 1.3 490 | | 4 13.1 | | 1 190 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #8.csv | 10/8/2019 | 8:47:02 AM | #8 | 370 | | 7 24736 | | 145 | ND | 25 | | 5 17 | | 3 61 | | 3 ND | | | | 48.2 | | 1.3 415 | | 3 9.4 | | 1 232 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_08_19 #9.csv | 10/8/2019 | 8:49:50 AM | #9 | 316 | | 16 20627 | | 124 | ND | ND | | 12 | | 3 50 | | 3 ND | | | | 45.4 | | 1.3 418 | | 3 10.3 | | 1 196 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_09_19 #1.csv | 10/9/2019 | 7:53:45 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #10.csv | 10/9/2019 | 10:23:08 AM | #10 | 47 | | 12 21705 | | 147 | ND | ND | | 30 | | 3 25 | | 2 ND | | | | 33.5 | | 1.3 249 | | 3 6.2 | | 1 152 | | 3 6.8 | | 1.6 | ND | | | ND | |
| Res_543158_10_09_19 #11.csv | 10/9/2019 | 10:23:56 AM | #11 | 110 | | 13 26991 | | 164 | ND | 16 | | 5 50 | | 4 34 | | 3 ND | | | | 46.0 | | 1.3 321 | | 3 7.2 | | 1 110 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_09_19 #12.csv | 10/9/2019 | 10:24:02 AM | #12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #13.csv | 10/9/2019 | 10:24:39 AM | #13 | 121 | | 15 40305 | | 236 | ND | ND | | 35 | | 3 32 | | 3 ND | | | | 38.0 | | 1.3 480 | | 4 ND | | 136 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_09_19 #14.csv | 10/9/2019 | 10:37:03 AM | #14 | 94 | | 13 16050 | | 114 | ND | ND | | 30 | | 3 38 | | 3 ND | | | | 45.8 | | 1.4 216 | | 3 6.5 | | 1 144 | | 3 9.5 | | 1.6 | ND | | | ND | |
| Res_543158_10_09_19 #15.csv | 10/9/2019 | 10:37:42 AM | #15 | 92 | | 13 23989 | | 148 | ND | ND | | 58 | | 4 36 | | 2 ND | | | | 41.3 | | 1.3 314 | | 3 6.8 | | 1 182 | | 3 6.8 | | 1.5 | ND | | | ND | |
| Res_543158_10_09_19 #16.csv | 10/9/2019 | 10:38:18 AM | #16 | 64 | | 13 18603 | | 139 | ND | ND | | 20 | | 3 25 | | 3 ND | | | | 31.9 | | 1.3 275 | | 3 3.4 | | 1.1 119 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_09_19 #17.csv | 10/9/2019 | 10:39:06 AM | #17 | 119 | | 16 14946 | | 126 | ND | ND | | 35 | | 4 33 | | 3 ND | | | | 32.8 | | 1.4 211 | | 3 5.3 | | 1.2 124 | | 3 7.4 | | 1.9 | ND | | | ND | |
| Res_543158_10_09_19 #18.csv | 10/9/2019 | 10:39:43 AM | #18 | 180 | | 21 81394 | | 524 | ND | ND | | 49 | | 5 40 | | 3 ND | | | | 25.7 | | 1.4 189 | | 3 4.2 | | 1.1 102 | | 3 ND | | ND | | | | ND | |
| Res_543158_10_09_19 #19.csv | 10/9/2019 | 10:40:24 AM | #19 | 43 | | 11 17771 | | 113 | ND | ND | | 22 | | 3 14.6 | | 1.9 ND | | | | 28.0 | | 1.1 342 | | 3 4.0 | | 0.9 83 | | 2 4.5 | | 1.4 | ND | | | ND | |

| Source.Name | Date | Time | Reading | Mn | Mn +/ | Fe | Fe +/ | Co | Co +/ | Ni | Ni +/ | Cu | Cu +/ | Zn | Zn +/ | Se | Se +/ | Br | Br +/ | Rb | Rb +/ | Sr | Sr +/ | Y | Y +/ | Zr | Zr +/ | Nb | Nb +/ | Mo | Mo +/ | Pd | Pd +/ | Ag | Ag +/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_09_19 #2.csv | 10/9/2019 | 8:36:54 AM | #2 | 128 | 15 | 34229 | 209 | ND | | ND | | 59 | 4 | 43 | 3 | ND | | | | 47.5 | 1.4 | 162 | | 2 | 4.8 | 1 | 141 | 3 | 8.9 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #20.csv | 10/9/2019 | 10:41:04 AM | #20 | 92 | 13 | 25748 | 165 | ND | | ND | | 40 | 4 | 16 | 2 | ND | | | | 43.0 | 1.4 | 307 | | 3 | 4.3 | 1 | 138 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #21.csv | 10/9/2019 | 10:43:51 AM | #21 | 65 | 10 | 12580 | 82 | ND | | ND | | 37 | 3 | 22.2 | 1.9 | ND | | | | 26.8 | 1 | 189 | | 2 | 3.7 | 0.8 | 112 | 2 | 5.6 | 1.3 | ND | | | | ND | |
| Res_543158_10_09_19 #22.csv | 10/9/2019 | 10:46:04 AM | #22 | 70 | 10 | 9555 | 67 | ND | | ND | | 72 | 4 | 23.2 | 2 | ND | | | | 63.2 | 1.3 | 220 | | 2 | 17.1 | 1 | 185 | 3 | 11.3 | 1.4 | ND | | | | ND | |
| Res_543158_10_09_19 #23.csv | 10/9/2019 | 10:46:46 AM | #23 | 141 | 13 | 28386 | 164 | ND | | 21 | 5 | 59 | 4 | 27 | 2 | ND | | | | 45.6 | 1.3 | 222 | | 2 | 8.4 | 1 | 146 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #24.csv | 10/9/2019 | 10:46:55 AM | #24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #25.csv | 10/9/2019 | 10:47:32 AM | #25 | 374 | 21 | 53682 | 329 | ND | | ND | | 73 | 5 | 55 | 3 | ND | | | | 35.4 | 1.3 | 105.6 | 1.9 | 6.6 | 1.1 | 115 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #26.csv | 10/9/2019 | 12:03:29 PM | #26 | 258 | 17 | 32890 | 203 | ND | | ND | | 37 | 4 | 36 | 3 | ND | | | | 47.0 | 1.4 | 169 | | 2 | 6.9 | 1.1 | 135 | 3 | 7.4 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #27.csv | 10/9/2019 | 12:36:49 PM | #27 | 93 | 16 | 55505 | 323 | ND | | ND | | 29 | 3 | 19 | 2 | ND | | | | 31.6 | 1.4 | 936 | | 7 | 4.5 | 1 | 120 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #28.csv | 10/9/2019 | 12:37:29 PM | #28 | 340 | 18 | 28155 | 174 | ND | | 34 | 5 | 55 | 4 | 65 | 3 | ND | | | | 67.4 | 1.6 | 361 | | 3 | 13.3 | 1.1 | 236 | 3 | 6.1 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #29.csv | 10/9/2019 | 12:38:13 PM | #29 | 85 | 10 | 12771 | 78 | ND | | 14 | 4 | 93 | 4 | 34 | 2 | ND | | | | 75.9 | 1.4 | 198.9 | | 2 | 9.2 | 0.9 | 208 | 2 | 7.4 | 1.3 | ND | | | | ND | |
| Res_543158_10_09_19 #3.csv | 10/9/2019 | 8:37:31 AM | #3 | 201 | 17 | 37150 | 231 | ND | | ND | | 42 | 4 | 44 | 3 | 2.9 | | 1 | | 53.5 | 1.5 | 212 | | 3 | 8.2 | 1.1 | 151 | 3 | 5.2 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #30.csv | 10/9/2019 | 2:42:59 PM | #30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #31.csv | 10/9/2019 | 2:43:37 PM | #31 | 42 | 11 | 11873 | 93 | ND | | ND | | 15 | 3 | ND | 2.4 | | | 1 | | 68.1 | 1.6 | 65.8 | 1.5 | 4.9 | 1.1 | 75 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #32.csv | 10/9/2019 | 2:44:17 PM | #32 | ND | | 17985 | 107 | ND | | ND | | 23 | 3 | 6.9 | 1.6 | 2.4 | | 1 | | 70.6 | 1.4 | 47.7 | 1.1 | 4.0 | 0.9 | 38.9 | 1.6 | ND | | ND | | | | 35 | 7 |
| Res_543158_10_09_19 #33.csv | 10/9/2019 | 2:44:58 PM | #33 | 48 | 10 | 14077 | 92 | ND | | ND | | 11 | 3 | ND | 2.1 | | | 1 | | 75.1 | 1.5 | 46.6 | 1.1 | 4.4 | 0.9 | 63.2 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #34.csv | 10/9/2019 | 2:45:38 PM | #34 | 46 | 10 | 16568 | 104 | ND | | ND | | 15 | 3 | ND | 2.4 | | | 1 | | 107.0 | 1.7 | 70.0 | 1.3 | 4.0 | 1 | 50.3 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #35.csv | 10/9/2019 | 2:46:23 PM | #35 | 55 | 11 | 15156 | 106 | ND | | ND | | 17 | 3 | 8.8 | 1.8 | ND | | | | 93.4 | 1.8 | 88.2 | 1.6 | 7.9 | 1.1 | 77 | 2 | 4.6 | 1.5 | ND | | | | ND | |
| Res_543158_10_09_19 #36.csv | 10/9/2019 | 2:50:06 PM | #36 | ND | | 585 | 9 | ND | | ND | | 44.2 | 1.9 | 132 | 2 | ND | | | | 2.6 | 0.4 | 19.9 | 0.5 | 9.0 | 0.6 | 19.3 | 1 | 2.6 | 0.8 | ND | | | | 46 | 3 |
| Res_543158_10_09_19 #37.csv | 10/9/2019 | 2:51:28 PM | #37 | 505 | 21 | 25442 | 167 | ND | | 25 | 5 | 26 | 3 | 55 | 3 | ND | | | | 91.2 | 1.9 | 339 | | 3 | 12.9 | 1.2 | 219 | 3 | 5.5 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #38.csv | 10/9/2019 | 2:55:04 PM | #38 | 293 | 17 | 9624 | 81 | ND | | ND | | 29 | 3 | 102 | 4 | ND | | | | 37.8 | 1.3 | 230 | | 3 | 12.0 | 1.1 | 110 | 3 | 11.2 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #39.csv | 10/9/2019 | 2:55:57 PM | #39 | 154 | 13 | 5208 | 51 | ND | | ND | | 16 | 3 | 27 | 2 | ND | | | | 58.6 | 1.4 | 137.1 | 1.9 | 8.4 | 1 | 128 | 2 | ND | | ND | | | | 36 | 7 |
| Res_543158_10_09_19 #4.csv | 10/9/2019 | 8:38:11 AM | #4 | 76 | 12 | 28089 | 160 | ND | | ND | | 41 | 3 | 21 | 2 | ND | | | | 50.2 | 1.3 | 310 | | 3 | 6.6 | 0.9 | 123 | 2 | 5.0 | 1.4 | ND | | | | ND | |
| Res_543158_10_09_19 #40.csv | 10/9/2019 | 2:57:19 PM | #40 | 300 | 19 | 17882 | 137 | ND | | 26 | 6 | 40 | 4 | 59 | 3 | ND | | | | 56.4 | 1.7 | 297 | | 3 | 14.6 | 1.3 | 167 | 3 | 8.3 | 1.8 | ND | | | | ND | |
| Res_543158_10_09_19 #41.csv | 10/9/2019 | 2:58:34 PM | #41 | 405 | 18 | 26707 | 160 | ND | | 17 | 5 | 36 | 3 | 52 | 3 | ND | | | | 68.9 | 1.5 | 292 | | 3 | 11.9 | 1.1 | 218 | 3 | 5.0 | 1.5 | ND | | | | ND | |
| Res_543158_10_09_19 #42.csv | 10/9/2019 | 2:59:08 PM | #42 | 85 | 11 | 8596 | 66 | ND | | ND | | 19 | 3 | 9.0 | 1.7 | ND | | | | 68.5 | 1.4 | 147.1 | 1.9 | 3.2 | 0.9 | 35.7 | 1.8 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #43.csv | 10/9/2019 | 2:59:46 PM | #43 | 39 | 10 | 7601 | 63 | ND | | ND | | 23 | 3 | 6.3 | 1.6 | ND | | | | 51.5 | 1.3 | 107.2 | 1.6 | ND | | 15.9 | 1.7 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #44.csv | 10/9/2019 | 3:00:31 PM | #44 | ND | | 9613 | 87 | ND | | ND | | 11 | 3 | ND | 3.8 | | | 1 | | 48.2 | 1.5 | 88.1 | 1.8 | ND | | 17 | 2 | ND | | 9 | | 2 | | 51 | 9 |
| Res_543158_10_09_19 #45.csv | 10/9/2019 | 3:02:43 PM | #45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #46.csv | 10/9/2019 | 3:03:19 PM | #46 | 397 | 19 | 21465 | 143 | ND | | 19 | 5 | 34 | 3 | 53 | 3 | ND | | | | 63.0 | 1.6 | 265 | | 3 | 12.6 | 1.1 | 141 | 3 | ND | | ND | | | | 83 | 8 |
| Res_543158_10_09_19 #47.csv | 10/9/2019 | 3:04:18 PM | #47 | 328 | 19 | 12438 | 106 | ND | | ND | | 16 | 3 | 36 | 3 | ND | | | | 60.6 | 1.7 | 249 | | 3 | 11.1 | 1.2 | 177 | 3 | ND | | 9 | | 2 | | ND | |
| Res_543158_10_09_19 #48.csv | 10/9/2019 | 3:05:29 PM | #48 | 167 | 15 | 17218 | 126 | ND | | ND | | 54 | 4 | 47 | 3 | ND | | | | 50.0 | 1.5 | 179 | | 2 | 13.1 | 1.2 | 132 | 3 | 7.6 | 1.7 | ND | | | | 28 | 7 |
| Res_543158_10_09_19 #5.csv | 10/9/2019 | 8:38:52 AM | #5 | 125 | 13 | 22870 | 142 | ND | | ND | | 24 | 3 | 21 | 2 | 3.9 | | 1 | | 114.3 | 1.9 | 175 | | 2 | 11.9 | 1.1 | 106 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #50.csv | 10/9/2019 | 3:07:48 PM | #50 | 335 | 22 | 21515 | 180 | ND | | ND | | 27 | 4 | 39 | 3 | ND | | | | 65.3 | 2 | 249 | | 3 | 13.2 | 1.4 | 142 | 3 | 9 | 2 | ND | | | | 41 | 9 |
| Res_543158_10_09_19 #51.csv | 10/9/2019 | 3:32:25 PM | #51 | 416 | 20 | 27780 | 182 | ND | | 21 | 5 | 30 | 4 | 57 | 3 | ND | | | | 69.7 | 1.7 | 363 | | 4 | 13.9 | 1.2 | 206 | 3 | 8.0 | 1.7 | ND | | | | ND | |
| Res_543158_10_09_19 #52.csv | 10/9/2019 | 3:33:21 PM | #52 | 441 | 21 | 23967 | 167 | ND | | 39 | 6 | 31 | 4 | 53 | 3 | ND | | | | 69.8 | 1.7 | 335 | | 4 | 14.3 | 1.2 | 190 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #53.csv | 10/9/2019 | 3:34:15 PM | #53 | 262 | 20 | 32678 | 231 | ND | | 19 | 6 | 61 | 5 | 46 | 3 | ND | | | | 64.7 | 1.8 | 299 | | 4 | 10.0 | 1.3 | 161 | 3 | 8.8 | 1.9 | ND | | | | ND | |
| Res_543158_10_09_19 #54.csv | 10/9/2019 | 3:34:56 PM | #54 | 467 | 21 | 27313 | 184 | ND | | 20 | 5 | 29 | 4 | 62 | 3 | ND | | | | 62.6 | 1.7 | 363 | | 4 | 13.5 | 1.2 | 217 | 3 | 11.2 | 1.8 | ND | | | | ND | |
| Res_543158_10_09_19 #55.csv | 10/9/2019 | 3:35:39 PM | #55 | 571 | 21 | 27595 | 170 | ND | | 35 | 5 | 31 | 3 | 66 | 3 | 2.6 | | 1 | | 91.4 | 1.8 | 343 | | 3 | 15.4 | 1.2 | 223 | 3 | 5.5 | 1.6 | ND | | | | ND | |
| Res_543158_10_09_19 #56.csv | 10/9/2019 | 4:00:38 PM | #56 | 489 | 19 | 25222 | 152 | ND | | 46 | 5 | 45 | 3 | 63 | 3 | 3.1 | | 1 | | 74.3 | 1.6 | 376 | | 3 | 13.8 | 1.1 | 220 | 3 | 6.8 | 1.5 | ND | | | | ND | |
| Res_543158_10_09_19 #57.csv | 10/9/2019 | 4:03:21 PM | #57 | 101 | 26 | 12664 | 198 | ND | | ND | | 24 | 7 | ND | ND | | | | | 71 | 3 | 56 | | 3 | 9 | 2 | 46 | 4 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #58.csv | 10/9/2019 | 4:03:58 PM | #58 | 58 | 11 | 12682 | 91 | ND | | ND | | 19 | 3 | 5.2 | 1.7 | ND | | | | 76.4 | 1.6 | 53.8 | 1.3 | 4.2 | 1 | 50.1 | 1.9 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #59.csv | 10/9/2019 | 4:06:57 PM | #59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #6.csv | 10/9/2019 | 8:39:27 AM | #6 | 187 | 15 | 28022 | 174 | ND | | ND | | 51 | 4 | 45 | 3 | ND | | | | 53.1 | 1.4 | 238 | | 3 | 6.1 | 1 | 218 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #60.csv | 10/9/2019 | 4:07:33 PM | #60 | ND | | 15910 | 114 | ND | | ND | | 17 | 3 | 5.6 | 1.8 | ND | | | | 67.7 | 1.6 | 130.0 | 2 | ND | | 51 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #61.csv | 10/9/2019 | 4:31:38 PM | #61 | 74 | 11 | 9647 | 73 | ND | | ND | | 20 | 3 | 8.6 | 1.7 | ND | | | | 96.7 | 1.7 | 115.5 | 1.7 | 3.4 | 1 | 84 | 2 | ND | | ND | | | | 25 | 7 |
| Res_543158_10_09_19 #62.csv | 10/9/2019 | 4:31:48 PM | #62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #63.csv | 10/9/2019 | 4:31:56 PM | #63 | ND | | 24844 | 508 | ND | | ND | | 38 | 11 | 26 | 7 | ND | | | | 99 | 6 | 220 | 8 | ND | | 149 | 9 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #64.csv | 10/9/2019 | 4:32:30 PM | #64 | 117 | 14 | 25376 | 164 | ND | | ND | | 33 | 3 | 31 | 3 | 3.7 | | 1 | | 105.7 | 1.9 | 215 | 3 | 9.1 | 1.2 | 157 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #65.csv | 10/9/2019 | 4:33:08 PM | #65 | 268 | 15 | 16714 | 112 | ND | | 25 | 5 | 30 | 3 | 33 | 2 | 2.2 | | 1 | | 85.9 | 1.7 | 195 | 2 | 6.9 | 1.1 | 102 | 2 | ND | | ND | | | | 27 | 7 |
| Res_543158_10_09_19 #66.csv | 10/9/2019 | 4:34:33 PM | #66 | 181 | 21 | 17226 | 175 | ND | | 26 | 8 | 37 | 5 | 30 | 4 | ND | | | | 74 | 2 | 208 | 4 | 10.0 | 1.6 | 130 | 4 | 11 | 2 | 14 | 3 | | | ND | |
| Res_543158_10_09_19 #67.csv | 10/9/2019 | 4:36:14 PM | #67 | 207 | 14 | 14032 | 97 | ND | | ND | | 20 | 3 | 44 | 3 | ND | | | | 73.7 | 1.5 | 100.5 | 1.6 | 2.9 | 1 | 66 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #68.csv | 10/9/2019 | 4:37:18 PM | #68 | 73 | 13 | 14456 | 111 | ND | | ND | | 24 | 3 | 10 | 2 | ND | | | | 81.8 | 1.8 | 103.6 | 1.8 | 4.7 | 1.1 | 90 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #7.csv | 10/9/2019 | 10:21:21 AM | #7 | 120 | 12 | 23488 | 137 | ND | | ND | | 19 | 3 | 19.2 | 2 | ND | | | | 33.3 | 1.1 | 427 | 3 | ND | | 128 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #8.csv | 10/9/2019 | 10:21:59 AM | #8 | 60 | 13 | 39260 | 227 | ND | | ND | | 25 | 3 | 16 | 2 | ND | | | | 23.5 | 1.1 | 472 | 4 | 3.2 | 0.9 | 79 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_09_19 #9.csv | 10/9/2019 | 10:22:28 AM | #9 | 119 | 16 | 20882 | 170 | ND | | ND | | 43 | 4 | 20 | 3 | ND | | | | 48.0 | 1.7 | 231 | 3 | 8.1 | 1.3 | 134 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_10_19 #1.csv | 10/10/2019 | 7:44:18 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #10.csv | 10/10/2019 | 9:10:15 AM | #10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #11.csv | 10/10/2019 | 9:12:05 AM | #11 | 103 | 13 | 28076 | 162 | ND | | ND | | 28 | 3 | 28 | 2 | ND | | | | 26.8 | 1.1 | 338 | 3 | ND | | 131 | 3 | ND | | ND | | | | ND | |
| Res_543158_10_10_19 #12.csv | 10/10/2019 | 9:12:43 AM | #12 | 79 | 12 | 28057 | 167 | ND | | ND | | 22 | 3 | 23 | 2 | ND | | | | 22.0 | 1.1 | 321 | 3 | ND | | 81 | 2 | ND | | ND | | | | ND | |
| Res_543158_10_10_19 #2.csv | 10/10/2019 | 9:09:34 AM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #3.csv | 10/10/2019 | 9:09:42 AM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #4.csv | 10/10/2019 | 9:09:46 AM | #4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #5.csv | 10/10/2019 | 9:09:51 AM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #6.csv | 10/10/2019 | 9:09:55 AM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #7.csv | 10/10/2019 | 9:10:03 AM | #7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #8.csv | 10/10/2019 | 9:10:08 AM | #8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #9.csv | 10/10/2019 | 9:10:12 AM | #9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Source.Name | Date | Time | Reading | Cd | Cd +/- | Sn | Sn +/- | Sb | Sb +/- | Ba | Ba +/- | Hf | Hf +/- | Ta | Ta +/- | W | W +/- | Re | Re +/- | Hg | Hg +/- | Bi | Bi +/- | Th | Th +/- | U | U +/- | LE | LE +/- | Pb | Pb +/- | As | As +/- | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_04_19 #1.csv | 9/4/2019 | 7:00:46 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19 #1.csv | 9/5/2019 | 1:38:26 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19 #2.csv | 9/5/2019 | 1:39:26 PM | #2 | ND | | ND | | 11412 | | 263 | 867 | 33 | | | | ND | | | | ND | | 44 | | 8 | ND | | ND | | | 22 | | 3 | ND | PASS |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:38:26 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:39:26 PM | #2 | ND | | ND | | 11412 | | 263 | 867 | 33 | | | | ND | | | | ND | | 44 | | 8 | ND | | ND | | | 22 | | 3 | ND | PASS |
| Res_543158_09_10_19 #1.csv | 9/10/2019 | 1:12:49 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19 #2.csv | 9/10/2019 | 1:16:22 PM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19 #3.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19 #5.csv | 9/10/2019 | 1:17:37 PM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19 #6.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19 #7.csv | 9/10/2019 | 1:18:19 PM | #7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19 #8.csv | 9/10/2019 | 1:20:07 PM | #8 | 31 | | 6 | ND | ND | | | | | | | | ND | | | | ND | | ND | | 67 | | 7 | 8.9 | 2 | | 15.2 | | 1.7 | ND | PASS |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:12:49 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:22 PM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:37 PM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:18:19 PM | #7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:20:07 PM | #8 | 31 | | 6 | ND | ND | | | | | | | | ND | | | | ND | | ND | | 67 | | 7 | 8.9 | 2 | | 15.2 | | 1.7 | ND | PASS |
| Res_543158_09_12_19 #10.csv | 9/12/2019 | 8:25:56 AM | #10 | ND | | ND | | 300 | | 85 | | | | | | ND | | | | 328 | | 28 | 156 | 44 | ND | | ND | | | 963 | | 60 | 168 | 47 PASS |
| Res_543158_09_12_19 #101.csv | 9/12/2019 | 1:53:37 PM | #101 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #102.csv | 9/12/2019 | 1:53:40 PM | #102 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #103.csv | 9/12/2019 | 1:54:13 PM | #103 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #104.csv | 9/12/2019 | 1:54:16 PM | #104 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #105.csv | 9/12/2019 | 1:54:41 PM | #105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #107.csv | 9/12/2019 | 1:56:15 PM | #107 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 31 | | 4 | 16 | 4 PASS |
| Res_543158_09_12_19 #108.csv | 9/12/2019 | 1:56:39 PM | #108 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 4 | 11 | 3 PASS |
| Res_543158_09_12_19 #109.csv | 9/12/2019 | 1:56:58 PM | #109 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 37 | | 4 | ND | PASS |
| Res_543158_09_12_19 #11.csv | 9/12/2019 | 8:26:49 AM | #11 | 201 | | 64 | ND | 13900 | | 510 | | | | | | ND | | | | 470 | | 63 | 7983 | 314 | ND | | ND | | | 2244 | | 126 | 2114 | 127 PASS |
| Res_543158_09_12_19 #110.csv | 9/12/2019 | 1:57:25 PM | #110 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 3 | 15 | 3 PASS |
| Res_543158_09_12_19 #111.csv | 9/12/2019 | 1:57:47 PM | #111 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 3 | 12 | 3 PASS |
| Res_543158_09_12_19 #112.csv | 9/12/2019 | 1:58:27 PM | #112 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 3 | 34 | 3 PASS |
| Res_543158_09_12_19 #114.csv | 9/12/2019 | 1:58:57 PM | #114 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | 15 | | 5 | | ND | | 19 | | 4 PASS |
| Res_543158_09_12_19 #115.csv | 9/12/2019 | 2:29:25 PM | #115 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 3 | 9 | 3 PASS |
| Res_543158_09_12_19 #116.csv | 9/12/2019 | 2:29:55 PM | #116 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 3 | ND | PASS |
| Res_543158_09_12_19 #117.csv | 9/12/2019 | 2:30:19 PM | #117 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 3 | ND | PASS |
| Res_543158_09_12_19 #118.csv | 9/12/2019 | 2:30:48 PM | #118 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 84 | | 14 | ND | | | 18 | | 4 | ND | PASS |
| Res_543158_09_12_19 #119.csv | 9/12/2019 | 3:04:32 PM | #119 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19 | | 3 | ND | PASS |
| Res_543158_09_12_19 #120.csv | 9/12/2019 | 3:05:06 PM | #120 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 58 | | 16 | ND | | | 12 | | 4 | ND | PASS |
| Res_543158_09_12_19 #121.csv | 9/12/2019 | 3:05:28 PM | #121 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10 | | 3 | ND | PASS |
| Res_543158_09_12_19 #122.csv | 9/12/2019 | 3:05:52 PM | #122 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 3 | 14 | 3 PASS |
| Res_543158_09_12_19 #123.csv | 9/12/2019 | 3:06:11 PM | #123 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 13 | | 3 PASS |
| Res_543158_09_12_19 #124.csv | 9/12/2019 | 3:06:34 PM | #124 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 4 | ND | PASS |
| Res_543158_09_12_19 #125.csv | 9/12/2019 | 3:06:56 PM | #125 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10 | | 3 | 14 | 3 PASS |
| Res_543158_09_12_19 #126.csv | 9/12/2019 | 3:16:06 PM | #126 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 25 | | 4 | ND | PASS |
| Res_543158_09_12_19 #127.csv | 9/12/2019 | 3:16:34 PM | #127 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | ND | | PASS |
| Res_543158_09_12_19 #128.csv | 9/12/2019 | 3:16:58 PM | #128 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 3 | 9 | 3 PASS |
| Res_543158_09_12_19 #129.csv | 9/12/2019 | 3:20:17 PM | #129 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 3 | 10 | 3 PASS |
| Res_543158_09_12_19 #13.csv | 9/12/2019 | 8:28:36 AM | #13 | ND | | ND | | 258 | | 36 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 783 | | 22 | ND | PASS |
| Res_543158_09_12_19 #130.csv | 9/12/2019 | 3:20:50 PM | #130 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | | 3 | 8 | 2 PASS |
| Res_543158_09_12_19 #131.csv | 9/12/2019 | 3:56:36 PM | #131 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 194 | | 6 | ND | PASS |
| Res_543158_09_12_19 #132.csv | 9/12/2019 | 3:57:07 PM | #132 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 126 | | 6 | 24 | 5 PASS |
| Res_543158_09_12_19 #133.csv | 9/12/2019 | 3:57:33 PM | #133 | ND | | ND | | 74 | | 22 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 62 | | 4 | 14 | 4 PASS |
| Res_543158_09_12_19 #134.csv | 9/12/2019 | 3:57:54 PM | #134 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 4 | 10 | 3 PASS |
| Res_543158_09_12_19 #135.csv | 9/12/2019 | 3:58:15 PM | #135 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | ND | | PASS |
| Res_543158_09_12_19 #136.csv | 9/12/2019 | 3:58:40 PM | #136 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 85 | | 19 | ND | | | ND | | 28 | | 4 PASS |
| Res_543158_09_12_19 #137.csv | 9/12/2019 | 3:59:05 PM | #137 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9 | | 3 | 21 | 3 PASS |
| Res_543158_09_12_19 #138.csv | 9/12/2019 | 4:09:19 PM | #138 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 4 | 13 | 4 PASS |
| Res_543158_09_12_19 #139.csv | 9/12/2019 | 4:09:42 PM | #139 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 4 | ND | PASS |
| Res_543158_09_12_19 #140.csv | 9/12/2019 | 4:10:06 PM | #140 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 36 | | 12 | ND | | | 14 | | 3 | ND | PASS |
| Res_543158_09_12_19 #141.csv | 9/12/2019 | 4:10:36 PM | #141 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 3 | 10 | 3 PASS |
| Res_543158_09_12_19 #142.csv | 9/12/2019 | 4:11:03 PM | #142 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 17 | | 3 PASS |
| Res_543158_09_12_19 #2.csv | 9/12/2019 | 7:21:20 AM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_12_19 #20.csv | 9/12/2019 | 9:51:50 AM | #20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #21.csv | 9/12/2019 | 9:52:06 AM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 35 | | 4 | 16 | 4 PASS |
| Res_543158_09_12_19 #22.csv | 9/12/2019 | 9:52:48 AM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 23 | | 4 | 13 | 3 PASS |
| Res_543158_09_12_19 #23.csv | 9/12/2019 | 9:53:21 AM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 46 | | 13 | ND | | | 26 | | 4 | 10 | 3 PASS |
| Res_543158_09_12_19 #24.csv | 9/12/2019 | 9:53:49 AM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 3 | 15 | 3 PASS |
| Res_543158_09_12_19 #25.csv | 9/12/2019 | 9:53:54 AM | #25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #27.csv | 9/12/2019 | 9:54:29 AM | #27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #28.csv | 9/12/2019 | 9:54:45 AM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 3 | ND | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #29.csv | 9/12/2019 | 9:55:12 AM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 36 | | 4 | ND | PASS |
| Res_543158_09_12_19 #3.csv | 9/12/2019 | 7:22:35 AM | #3 | ND | | ND | | 4558 | | 216 | | | | | | ND | | | | 156 | | 39 | 2231 | 127 | ND | ND | | | | 729 | | 64 | 449 | 59 PASS |
| Res_543158_09_12_19 #30.csv | 9/12/2019 | 9:55:39 AM | #30 | ND | | 73 | | 21 | ND | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 25 | | 4 | 12 | 3 PASS |
| Res_543158_09_12_19 #31.csv | 9/12/2019 | 9:56:01 AM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 28 | | 4 | ND | PASS |
| Res_543158_09_12_19 #32.csv | 9/12/2019 | 10:31:57 AM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 45 | | 5 | ND | PASS |
| Res_543158_09_12_19 #33.csv | 9/12/2019 | 10:32:21 AM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | ND | | PASS |
| Res_543158_09_12_19 #34.csv | 9/12/2019 | 10:32:46 AM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 88 | | 20 | ND | | | 39 | | 6 | ND | PASS |
| Res_543158_09_12_19 #35.csv | 9/12/2019 | 10:33:09 AM | #35 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 4 | 15 | 4 PASS |
| Res_543158_09_12_19 #36.csv | 9/12/2019 | 10:33:23 AM | #36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #37.csv | 9/12/2019 | 10:33:26 AM | #37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #38.csv | 9/12/2019 | 10:33:42 AM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 21 | | 4 | 11 | 3 PASS |
| Res_543158_09_12_19 #39.csv | 9/12/2019 | 10:34:08 AM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19 | | 4 | 17 | 3 PASS |
| Res_543158_09_12_19 #4.csv | 9/12/2019 | 7:22:48 AM | #4 | ND | | ND | | 274 | | 42 | | | | | | ND | | | | ND | | 168 | | 19 | ND | ND | | | | 118 | | 10 | 41 | 9 PASS |
| Res_543158_09_12_19 #40.csv | 9/12/2019 | 10:34:31 AM | #40 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 3 | ND | PASS |
| Res_543158_09_12_19 #41.csv | 9/12/2019 | 10:40:37 AM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19 | | 4 | ND | PASS |
| Res_543158_09_12_19 #42.csv | 9/12/2019 | 10:41:01 AM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 3 | 14 | 3 PASS |
| Res_543158_09_12_19 #43.csv | 9/12/2019 | 10:41:26 AM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | | 4 | ND | PASS |
| Res_543158_09_12_19 #44.csv | 9/12/2019 | 10:41:50 AM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | | 4 | 10 | 3 PASS |
| Res_543158_09_12_19 #45.csv | 9/12/2019 | 10:42:13 AM | #45 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 3 | 9 | 3 PASS |
| Res_543158_09_12_19 #46.csv | 9/12/2019 | 11:35:30 AM | #46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #47.csv | 9/12/2019 | 11:35:46 AM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 167 | | 7 | 20 | 6 PASS |
| Res_543158_09_12_19 #48.csv | 9/12/2019 | 11:36:28 AM | #48 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 32 | | 3 | 9 | 3 PASS |
| Res_543158_09_12_19 #49.csv | 9/12/2019 | 11:36:55 AM | #49 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 3 | 9 | 3 PASS |
| Res_543158_09_12_19 #50.csv | 9/12/2019 | 11:37:17 AM | #50 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | | 15 | 3 PASS |
| Res_543158_09_12_19 #51.csv | 9/12/2019 | 11:37:48 AM | #51 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 3 | 9 | 3 PASS |
| Res_543158_09_12_19 #52.csv | 9/12/2019 | 11:38:21 AM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 4 | 19 | 3 PASS |
| Res_543158_09_12_19 #53.csv | 9/12/2019 | 11:38:24 AM | #53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #54.csv | 9/12/2019 | 11:38:55 AM | #54 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | | 18 | 5 PASS |
| Res_543158_09_12_19 #55.csv | 9/12/2019 | 11:39:18 AM | #55 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | | 11 | 3 PASS |
| Res_543158_09_12_19 #56.csv | 9/12/2019 | 11:39:49 AM | #56 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 3 | 31 | 3 PASS |
| Res_543158_09_12_19 #57.csv | 9/12/2019 | 11:49:50 AM | #57 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 3 | 20 | 3 PASS |
| Res_543158_09_12_19 #58.csv | 9/12/2019 | 11:50:16 AM | #58 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 4 | 23 | 4 PASS |
| Res_543158_09_12_19 #59.csv | 9/12/2019 | 11:50:36 AM | #59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #6.csv | 9/12/2019 | 8:21:58 AM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #61.csv | 9/12/2019 | 11:50:56 AM | #61 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 4 | 27 | 3 PASS |
| Res_543158_09_12_19 #62.csv | 9/12/2019 | 11:51:19 AM | #62 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 21 | | 4 | 20 | 4 PASS |
| Res_543158_09_12_19 #63.csv | 9/12/2019 | 11:51:30 AM | #63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #64.csv | 9/12/2019 | 11:51:46 AM | #64 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 4 | 19 | 4 PASS |
| Res_543158_09_12_19 #65.csv | 9/12/2019 | 12:18:35 PM | #65 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 35 | | 4 | 23 | 4 PASS |
| Res_543158_09_12_19 #66.csv | 9/12/2019 | 12:19:10 PM | #66 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 4 | 19 | 3 PASS |
| Res_543158_09_12_19 #67.csv | 9/12/2019 | 12:19:34 PM | #67 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 56 | | 5 | 37 | 4 PASS |
| Res_543158_09_12_19 #68.csv | 9/12/2019 | 12:19:56 PM | #68 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 23 | | 4 | 22 | 3 PASS |
| Res_543158_09_12_19 #69.csv | 9/12/2019 | 12:20:20 PM | #69 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10 | | 3 | ND | PASS |
| Res_543158_09_12_19 #7.csv | 9/12/2019 | 8:22:12 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 536 | | 157 | ND | ND | | | | 669 | | 84 | 209 | 68 PASS |
| Res_543158_09_12_19 #70.csv | 9/12/2019 | 12:20:38 PM | #70 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | | 35 | 6 PASS |
| Res_543158_09_12_19 #71.csv | 9/12/2019 | 12:20:51 PM | #71 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 33 | 4 PASS |
| Res_543158_09_12_19 #72.csv | 9/12/2019 | 12:21:13 PM | #72 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 63 | | 16 | ND | | | 14 | | 4 | 27 | 4 PASS |
| Res_543158_09_12_19 #73.csv | 9/12/2019 | 12:27:38 PM | #73 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 31 | 4 PASS |
| Res_543158_09_12_19 #74.csv | 9/12/2019 | 12:28:02 PM | #74 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19 | | 4 | 21 | 4 PASS |
| Res_543158_09_12_19 #75.csv | 9/12/2019 | 12:28:23 PM | #75 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 10 | 3 PASS |
| Res_543158_09_12_19 #76.csv | 9/12/2019 | 12:28:45 PM | #76 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 10 | 3 PASS |
| Res_543158_09_12_19 #77.csv | 9/12/2019 | 12:29:04 PM | #77 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | | 4 | 15 | 3 PASS |
| Res_543158_09_12_19 #78.csv | 9/12/2019 | 12:59:23 PM | #78 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 88 | | 5 | 12 | 4 PASS |
| Res_543158_09_12_19 #79.csv | 9/12/2019 | 1:00:03 PM | #79 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 49 | | 4 | 25 | 4 PASS |
| Res_543158_09_12_19 #8.csv | 9/12/2019 | 8:24:01 AM | #8 | 550 | | 55 | ND | 31180 | | 806 | | | | | | ND | | | | 237 | | 48 | 7020 | 220 | ND | ND | | | | 22040 | | 577 | 1310 | 178 PASS |
| Res_543158_09_12_19 #80.csv | 9/12/2019 | 1:00:32 PM | #80 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 69 | | 5 | ND | PASS |
| Res_543158_09_12_19 #82.csv | 9/12/2019 | 1:01:04 PM | #82 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 4 | 10 | 3 PASS |
| Res_543158_09_12_19 #83.csv | 9/12/2019 | 1:01:24 PM | #83 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 4 | 16 | 4 PASS |
| Res_543158_09_12_19 #84.csv | 9/12/2019 | 1:01:41 PM | #84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #85.csv | 9/12/2019 | 1:01:58 PM | #85 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 3 | ND | PASS |
| Res_543158_09_12_19 #86.csv | 9/12/2019 | 1:02:22 PM | #86 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19 | | 4 | 14 | 3 PASS |
| Res_543158_09_12_19 #87.csv | 9/12/2019 | 1:06:51 PM | #87 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 34 | | 4 | 13 | 4 PASS |
| Res_543158_09_12_19 #89.csv | 9/12/2019 | 1:07:08 PM | #89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #9.csv | 9/12/2019 | 8:25:01 AM | #9 | ND | | ND | | 252 | | 42 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 67 | | 8 | 86 | 9 PASS |
| Res_543158_09_12_19 #90.csv | 9/12/2019 | 1:07:23 PM | #90 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 23 | | 4 | ND | PASS |
| Res_543158_09_12_19 #91.csv | 9/12/2019 | 1:07:51 PM | #91 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | | 11 | 3 PASS |
| Res_543158_09_12_19 #92.csv | 9/12/2019 | 1:08:16 PM | #92 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | | 3 | 13 | 3 PASS |
| Res_543158_09_12_19 #93.csv | 9/12/2019 | 1:08:39 PM | #93 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 3 | 18 | 3 PASS |
| Res_543158_09_12_19 #94.csv | 9/12/2019 | 1:52:38 PM | #94 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 74 | | 5 | ND | PASS |
| Res_543158_09_12_19 #95.csv | 9/12/2019 | 1:53:10 PM | #95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #96.csv | 9/12/2019 | 1:53:14 PM | #96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #97.csv | 9/12/2019 | 1:53:17 PM | #97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #98.csv | 9/12/2019 | 1:53:22 PM | #98 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_12_19 #99.csv | 9/12/2019 | 1:53:26 PM | #99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_13_19 #1.csv | 9/13/2019 | 8:54:57 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #10.csv | 9/13/2019 | 9:37:21 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 4 | 25 | 4 PASS |
| Res_543158_09_13_19 #11.csv | 9/13/2019 | 9:43:28 AM | #11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_13_19 #12.csv | 9/13/2019 | 9:43:46 AM | #12 | ND | | ND | | ND | | | | | | | | 43 | | 12 | | ND | | ND | | ND | | ND | | | | ND | | 14 | | 3 PASS |
| Res_543158_09_13_19 #13.csv | 9/13/2019 | 9:44:18 AM | #13 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 20 | | 4 | 18 | 3 PASS |
| Res_543158_09_13_19 #14.csv | 9/13/2019 | 9:44:41 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 31 | 4 PASS |
| Res_543158_09_13_19 #15.csv | 9/13/2019 | 9:45:01 AM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 4 | 17 | 3 PASS |
| Res_543158_09_13_19 #16.csv | 9/13/2019 | 9:45:21 AM | #16 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 25 | | 4 | 19 | 4 PASS |
| Res_543158_09_13_19 #17.csv | 9/13/2019 | 10:20:40 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_13_19 #18.csv | 9/13/2019 | 10:20:55 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 310 | | 9 | ND | PASS |
| Res_543158_09_13_19 #19.csv | 9/13/2019 | 10:21:42 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 40 | | 4 | 19 | 4 PASS |
| Res_543158_09_13_19 #2.csv | 9/13/2019 | 9:34:12 AM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #20.csv | 9/13/2019 | 10:22:09 AM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 312 | | 8 | 25 | 7 PASS |
| Res_543158_09_13_19 #21.csv | 9/13/2019 | 10:22:23 AM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 22 | | 4 | ND | PASS |
| Res_543158_09_13_19 #22.csv | 9/13/2019 | 10:22:48 AM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 13 | | 3 PASS |
| Res_543158_09_13_19 #23.csv | 9/13/2019 | 10:23:14 AM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | ND | | PASS |
| Res_543158_09_13_19 #24.csv | 9/13/2019 | 10:23:39 AM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 17 | | 3 PASS |
| Res_543158_09_13_19 #25.csv | 9/13/2019 | 10:24:02 AM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 4 | 29 | 4 PASS |
| Res_543158_09_13_19 #26.csv | 9/13/2019 | 10:35:02 AM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 13 | | 3 PASS |
| Res_543158_09_13_19 #27.csv | 9/13/2019 | 10:35:28 AM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | | 4 | 19 | 4 PASS |
| Res_543158_09_13_19 #28.csv | 9/13/2019 | 10:35:47 AM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 45 | 4 PASS |
| Res_543158_09_13_19 #29.csv | 9/13/2019 | 10:36:07 AM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 4 | 22 | 4 PASS |
| Res_543158_09_13_19 #3.csv | 9/13/2019 | 9:34:37 AM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_13_19 #30.csv | 9/13/2019 | 10:36:26 AM | #30 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 24 | | 4 | 20 | 4 PASS |
| Res_543158_09_13_19 #31.csv | 9/13/2019 | 11:27:15 AM | #31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_13_19 #32.csv | 9/13/2019 | 11:27:29 AM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 198 | | 8 | ND | PASS |
| Res_543158_09_13_19 #33.csv | 9/13/2019 | 11:27:57 AM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 161 | | 7 | 30 | 6 PASS |
| Res_543158_09_13_19 #34.csv | 9/13/2019 | 11:28:17 AM | #34 | ND | | ND | | 85 | | 27 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 4 | 21 | 3 PASS |
| Res_543158_09_13_19 #35.csv | 9/13/2019 | 11:28:36 AM | #35 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 3 | 25 | 3 PASS |
| Res_543158_09_13_19 #36.csv | 9/13/2019 | 11:28:58 AM | #36 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 21 | | 4 | 16 | 4 PASS |
| Res_543158_09_13_19 #37.csv | 9/13/2019 | 11:29:19 AM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | | 3 | 18 | 3 PASS |
| Res_543158_09_13_19 #38.csv | 9/13/2019 | 11:29:39 AM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 16 | | 4 | 12 | 3 PASS |
| Res_543158_09_13_19 #39.csv | 9/13/2019 | 11:37:32 AM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15 | | 4 | 21 | 4 PASS |
| Res_543158_09_13_19 #4.csv | 9/13/2019 | 9:34:57 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 33 | | 5 | 36 | 5 PASS |
| Res_543158_09_13_19 #40.csv | 9/13/2019 | 11:37:54 AM | #40 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 4 | 17 | 3 PASS |
| Res_543158_09_13_19 #41.csv | 9/13/2019 | 12:20:13 PM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 53 | | 4 | 25 | 4 PASS |
| Res_543158_09_13_19 #42.csv | 9/13/2019 | 12:20:35 PM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 24 | | 4 | 21 | 3 PASS |
| Res_543158_09_13_19 #43.csv | 9/13/2019 | 12:20:55 PM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 76 | | 5 | 20 | 5 PASS |
| Res_543158_09_13_19 #44.csv | 9/13/2019 | 12:21:19 PM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 41 | | 13 | ND | | | 45 | | 4 | 17 | 4 PASS |
| Res_543158_09_13_19 #45.csv | 9/13/2019 | 12:21:52 PM | #45 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 24 | | 3 | ND | PASS |
| Res_543158_09_13_19 #46.csv | 9/13/2019 | 12:22:21 PM | #46 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 21 | | 3 | 11 | 3 PASS |
| Res_543158_09_13_19 #47.csv | 9/13/2019 | 12:22:42 PM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 30 | | 4 | ND | PASS |
| Res_543158_09_13_19 #48.csv | 9/13/2019 | 12:29:49 PM | #48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_13_19 #49.csv | 9/13/2019 | 12:30:03 PM | #49 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 22 | | 4 | ND | PASS |
| Res_543158_09_13_19 #5.csv | 9/13/2019 | 9:35:28 AM | #5 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 90 | | 5 | 25 | 5 PASS |
| Res_543158_09_13_19 #50.csv | 9/13/2019 | 12:30:26 PM | #50 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | ND | | PASS |
| Res_543158_09_13_19 #51.csv | 9/13/2019 | 12:30:58 PM | #51 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 3 | ND | PASS |
| Res_543158_09_13_19 #52.csv | 9/13/2019 | 12:31:22 PM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | | 3 | ND | PASS |
| Res_543158_09_13_19 #53.csv | 9/13/2019 | 12:31:49 PM | #53 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | | 3 | 10 | 3 PASS |
| Res_543158_09_13_19 #6.csv | 9/13/2019 | 9:35:49 AM | #6 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 91 | | 6 | 19 | 5 PASS |
| Res_543158_09_13_19 #7.csv | 9/13/2019 | 9:36:08 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 74 | | 5 | 42 | 5 PASS |
| Res_543158_09_13_19 #8.csv | 9/13/2019 | 9:36:32 AM | #8 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | | 4 | 25 | 3 PASS |
| Res_543158_09_13_19 #9.csv | 9/13/2019 | 9:36:59 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 18 | | 3 PASS |
| Res_543158_09_17_19 #1.csv | 9/17/2019 | 1:24:02 PM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #1.csv | 9/18/2019 | 11:56:18 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #2.csv | 9/18/2019 | 11:58:20 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.2 | | 1.5 | 5.0 | 1 PASS |
| Res_543158_09_18_19 #3.csv | 9/18/2019 | 12:01:28 PM | #3 | ND | | 231 | | 74 | ND | | | | | | | 480 | | 83 | | ND | | 595 | | 53 | ND | ND | | | | ND | | ND | | PASS |
| Res_543158_09_18_19 #4.csv | 9/18/2019 | 12:02:09 PM | #4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_18_19 #5.csv | 9/18/2019 | 12:04:25 PM | #5 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.4 | | 1.3 | 6.9 | 1 PASS |
| Res_543158_09_25_19 #1.csv | 9/25/2019 | 8:52:36 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_09_25_19 #10.csv | 9/25/2019 | 10:09:30 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 128 | | 4 PASS |
| Res_543158_09_25_19 #11.csv | 9/25/2019 | 10:09:40 AM | #11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_25_19 #12.csv | 9/25/2019 | 10:10:02 AM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 23 | | 3 PASS |
| Res_543158_09_25_19 #14.csv | 9/25/2019 | 10:10:32 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 228 | | 5 PASS |
| Res_543158_09_25_19 #15.csv | 9/25/2019 | 10:10:51 AM | #15 | ND | | ND | | 155 | | 50 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 278 | | 15 PASS |
| Res_543158_09_25_19 #16.csv | 9/25/2019 | 11:18:08 AM | #16 | ND | | ND | | ND | | | | | | | | 17 | | 5 | | ND | | ND | | ND | | ND | | | | 12.9 | | 1.7 | 114 | 3 PASS |
| Res_543158_09_25_19 #17.csv | 9/25/2019 | 11:19:49 AM | #17 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.3 | | 1.7 | 136 | 3 PASS |
| Res_543158_09_25_19 #18.csv | 9/25/2019 | 11:20:55 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.6 | | 1.7 | 109 | 3 PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_25_19 #19.csv | 9/25/2019 | 11:22:49 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9 | 2 | 85 | 3 | PASS |
| Res_543158_09_25_19 #2.csv | 9/25/2019 | 8:55:56 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.4 | 1.6 | 192 | 3 | PASS |
| Res_543158_09_25_19 #20.csv | 9/25/2019 | 1:26:30 PM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 44 | | 11 | 10 | 3 | | 12 | 3 | ND | | PASS |
| Res_543158_09_25_19 #21.csv | 9/25/2019 | 1:29:13 PM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 124 | 5 | PASS |
| Res_543158_09_25_19 #22.csv | 9/25/2019 | 1:30:59 PM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 36 | | 10 | ND | | | ND | | 56 | 3 | PASS |
| Res_543158_09_25_19 #23.csv | 9/25/2019 | 1:31:23 PM | #23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_25_19 #24.csv | 9/25/2019 | 1:31:48 PM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | 11 | | 3 | ND | ND | | ND | | | | 7 | 2 | 82 | 3 | PASS |
| Res_543158_09_25_19 #25.csv | 9/25/2019 | 1:32:27 PM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 79 | 3 | PASS |
| Res_543158_09_25_19 #26.csv | 9/25/2019 | 1:34:05 PM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 49 | | 12 | ND | | | 9 | 3 | 121 | 5 | PASS |
| Res_543158_09_25_19 #27.csv | 9/25/2019 | 1:41:59 PM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 96 | 7 | PASS |
| Res_543158_09_25_19 #28.csv | 9/25/2019 | 1:42:19 PM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 91 | 3 | PASS |
| Res_543158_09_25_19 #29.csv | 9/25/2019 | 1:43:55 PM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8 | 3 | 106 | 4 | PASS |
| Res_543158_09_25_19 #3.csv | 9/25/2019 | 8:57:41 AM | #3 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.8 | 1.6 | 82 | 2 | PASS |
| Res_543158_09_25_19 #30.csv | 9/25/2019 | 1:44:16 PM | #30 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 112 | 6 | PASS |
| Res_543158_09_25_19 #31.csv | 9/25/2019 | 1:44:45 PM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 41 | 4 | PASS |
| Res_543158_09_25_19 #32.csv | 9/25/2019 | 1:48:46 PM | #32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_25_19 #33.csv | 9/25/2019 | 2:29:38 PM | #33 | ND | | ND | | 106 | | 21 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 281 | 6 | PASS |
| Res_543158_09_25_19 #34.csv | 9/25/2019 | 2:30:10 PM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 996 | 18 | PASS |
| Res_543158_09_25_19 #35.csv | 9/25/2019 | 2:31:27 PM | #35 | ND | | ND | | 75 | | 24 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 188 | 6 | PASS |
| Res_543158_09_25_19 #36.csv | 9/25/2019 | 2:31:44 PM | #36 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 307 | 12 | PASS |
| Res_543158_09_25_19 #37.csv | 9/25/2019 | 2:32:58 PM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 75 | 5 | PASS |
| Res_543158_09_25_19 #38.csv | 9/25/2019 | 2:33:29 PM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 82 | 5 | PASS |
| Res_543158_09_25_19 #39.csv | 9/25/2019 | 2:34:05 PM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 826 | 18 | PASS |
| Res_543158_09_25_19 #4.csv | 9/25/2019 | 8:59:48 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.8 | 1.8 | 71 | 2 | PASS |
| Res_543158_09_25_19 #40.csv | 9/25/2019 | 2:34:23 PM | #40 | ND | | ND | | 129 | | 39 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 531 | 16 | PASS |
| Res_543158_09_25_19 #41.csv | 9/25/2019 | 2:34:39 PM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 145 | 7 | PASS |
| Res_543158_09_25_19 #42.csv | 9/25/2019 | 2:35:01 PM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 464 | 8 | PASS |
| Res_543158_09_25_19 #43.csv | 9/25/2019 | 2:36:27 PM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10 | 3 | 60 | 3 | PASS |
| Res_543158_09_25_19 #44.csv | 9/25/2019 | 2:37:13 PM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | 17 | | 4 | ND | ND | | ND | | | | ND | | 44 | 3 | PASS |
| Res_543158_09_25_19 #45.csv | 9/25/2019 | 2:37:39 PM | #45 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 51 | 3 | PASS |
| Res_543158_09_25_19 #5.csv | 9/25/2019 | 9:20:11 AM | #5 | ND | | ND | | 72 | | 12 | | | | | | ND | | | | ND | | ND | | 23 | | 7 | ND | | | ND | | 428 | 5 | PASS |
| Res_543158_09_25_19 #6.csv | 9/25/2019 | 9:20:26 AM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_09_25_19 #7.csv | 9/25/2019 | 9:20:56 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 59 | 3 | PASS |
| Res_543158_09_25_19 #8.csv | 9/25/2019 | 9:21:28 AM | #8 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 83 | 3 | PASS |
| Res_543158_09_25_19 #9.csv | 9/25/2019 | 9:22:13 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 47 | | 12 | 11 | 4 | | ND | | 40 | 3 | PASS |
| Res_543158_10_01_19 #10.csv | 10/1/2019 | 12:27:38 PM | #10 | ND | | ND | | 51 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 339 | 4 | PASS |
| Res_543158_10_01_19 #11.csv | 10/1/2019 | 12:28:21 PM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 17 | 5 | ND | | ND | | | | 12.0 | 1.7 | 167 | 3 | PASS |
| Res_543158_10_01_19 #12.csv | 10/1/2019 | 2:23:53 PM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 58 | 2 | PASS |
| Res_543158_10_01_19 #13.csv | 10/1/2019 | 2:24:04 PM | #13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_01_19 #15.csv | 10/1/2019 | 2:24:43 PM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 91 | 2 | PASS |
| Res_543158_10_01_19 #16.csv | 10/1/2019 | 2:25:25 PM | #16 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 30 | | 9 | ND | | | ND | | 52 | 2 | PASS |
| Res_543158_10_01_19 #17.csv | 10/1/2019 | 2:26:15 PM | #17 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 45 | | 9 | ND | | | 13 | 2 | 166 | 4 | PASS |
| Res_543158_10_01_19 #18.csv | 10/1/2019 | 2:26:51 PM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 26.4 | 2 | PASS |
| Res_543158_10_01_19 #19.csv | 10/1/2019 | 2:27:33 PM | #19 | ND | | 39 | | 13 | ND | | | | | | | 15 | | 5 | | ND | | ND | | ND | | ND | | | | 4.9 | 1.6 | 137 | 3 | PASS |
| Res_543158_10_01_19 #20.csv | 10/1/2019 | 3:00:12 PM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14.0 | 1.5 | 4.5 | 1 | PASS |
| Res_543158_10_01_19 #21.csv | 10/1/2019 | 3:01:24 PM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 27 | | 7 | ND | | | 9.4 | 1.7 | 8.2 | 2 | PASS |
| Res_543158_10_01_19 #22.csv | 10/1/2019 | 4:10:30 PM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 63 | 2 | PASS |
| Res_543158_10_01_19 #23.csv | 10/1/2019 | 4:11:16 PM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.2 | 1.4 | 45.1 | 2 | PASS |
| Res_543158_10_01_19 #24.csv | 10/1/2019 | 4:11:28 PM | #24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_01_19 #25.csv | 10/1/2019 | 4:12:09 PM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.3 | 1.6 | 66 | 2 | PASS |
| Res_543158_10_01_19 #26.csv | 10/1/2019 | 4:12:53 PM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.1 | 1.5 | 95 | 2 | PASS |
| Res_543158_10_01_19 #27.csv | 10/1/2019 | 4:14:46 PM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 27 | | 7 | ND | | | 18 | 2 | 122 | 3 | PASS |
| Res_543158_10_01_19 #28.csv | 10/1/2019 | 4:16:36 PM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.7 | 1.6 | 204 | 3 | PASS |
| Res_543158_10_01_19 #29.csv | 10/1/2019 | 4:17:18 PM | #29 | ND | | ND | | 68 | | 15 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.3 | 1.9 | 440 | 6 | PASS |
| Res_543158_10_01_19 #30.csv | 10/1/2019 | 4:18:24 PM | #30 | ND | | ND | | 142 | | 18 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 913 | 10 | PASS |
| Res_543158_10_01_19 #4.csv | 10/1/2019 | 11:55:30 AM | #4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_01_19 #7.csv | 10/1/2019 | 12:24:37 PM | #7 | ND | | ND | | 66 | | 12 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 159 | 3 | PASS |
| Res_543158_10_01_19 #8.csv | 10/1/2019 | 12:25:27 PM | #8 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 1107 | 10 | PASS |
| Res_543158_10_01_19 #9.csv | 10/1/2019 | 12:26:57 PM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 236 | 4 | PASS |
| Res_543158_10_02_19 #1.csv | 10/2/2019 | 7:52:35 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_02_19 #10.csv | 10/2/2019 | 10:58:56 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 18 | 5 | ND | | ND | | | | 11.8 | 1.6 | 182 | 3 | PASS |
| Res_543158_10_02_19 #11.csv | 10/2/2019 | 10:59:37 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 77 | 2 | PASS |
| Res_543158_10_02_19 #12.csv | 10/2/2019 | 11:00:26 AM | #12 | ND | | ND | | 75 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.0 | 1.6 | 252 | 4 | PASS |
| Res_543158_10_02_19 #13.csv | 10/2/2019 | 11:03:57 AM | #13 | ND | | ND | | 97 | | 22 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 57 | 4 | 1174 | 14 | PASS |
| Res_543158_10_02_19 #14.csv | 10/2/2019 | 11:05:19 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.2 | 1.6 | 116 | 3 | PASS |
| Res_543158_10_02_19 #15.csv | 10/2/2019 | 2:18:44 PM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 243 | 4 | PASS |
| Res_543158_10_02_19 #16.csv | 10/2/2019 | 2:19:37 PM | #16 | ND | | ND | | ND | | | | | | | | 22 | | 5 | | ND | | ND | | ND | | ND | | | | 12.0 | 1.7 | 230 | 4 | PASS |
| Res_543158_10_02_19 #17.csv | 10/2/2019 | 2:20:17 PM | #17 | ND | | ND | | ND | | | | | | | | 20 | | 5 | | ND | | ND | | ND | | ND | | | | 7.9 | 1.6 | 305 | 4 | PASS |
| Res_543158_10_02_19 #18.csv | 10/2/2019 | 2:20:31 PM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 91 | 5 | PASS |
| Res_543158_10_02_19 #19.csv | 10/2/2019 | 2:29:05 PM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.7 | 1.8 | 304 | 5 | PASS |
| Res_543158_10_02_19 #2.csv | 10/2/2019 | 9:28:04 AM | #2 | ND | | ND | | ND | | | | | | | | 18 | | 5 | | 10 | | 2 | 21 | 5 | ND | | ND | | | 5.3 | 1.5 | 67 | 2 | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_02_19 #20.csv | 10/2/2019 | 2:30:34 PM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 162 | 10 | PASS |
| Res_543158_10_02_19 #21.csv | 10/2/2019 | 2:30:59 PM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 56 | | 18 ND | | | | ND | | 146 | 7 | PASS |
| Res_543158_10_02_19 #22.csv | 10/2/2019 | 2:34:54 PM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 518 | | 8 124 | 7 | PASS |
| Res_543158_10_02_19 #23.csv | 10/2/2019 | 2:35:38 PM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 19 | | 5 ND | | ND | | | | 8.4 | | 1.5 77 | 2 | PASS |
| Res_543158_10_02_19 #24.csv | 10/2/2019 | 2:36:22 PM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 29.9 | 2 | PASS |
| Res_543158_10_02_19 #25.csv | 10/2/2019 | 2:37:43 PM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9 | | 2 344 | 5 | PASS |
| Res_543158_10_02_19 #26.csv | 10/2/2019 | 2:38:30 PM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 95 | 3 | PASS |
| Res_543158_10_02_19 #27.csv | 10/2/2019 | 2:39:12 PM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 153 | 3 | PASS |
| Res_543158_10_02_19 #28.csv | 10/2/2019 | 2:40:07 PM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 56 | 2 | PASS |
| Res_543158_10_02_19 #29.csv | 10/2/2019 | 2:40:56 PM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.2 | | 1.6 329 | 5 | PASS |
| Res_543158_10_02_19 #3.csv | 10/2/2019 | 9:28:49 AM | #3 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.7 | | 1.5 81 | 2 | PASS |
| Res_543158_10_02_19 #30.csv | 10/2/2019 | 2:41:44 PM | #30 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 31 | | 8 ND | | | | 16 | | 2 82 | 3 | PASS |
| Res_543158_10_02_19 #31.csv | 10/2/2019 | 3:49:44 PM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | 7 | | 2 ND | | ND | | ND | | | | 17.4 | | 1.8 94 | 2 | PASS |
| Res_543158_10_02_19 #32.csv | 10/2/2019 | 3:49:54 PM | #32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_02_19 #33.csv | 10/2/2019 | 3:50:31 PM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15.2 | | 1.8 46 | 2 | PASS |
| Res_543158_10_02_19 #34.csv | 10/2/2019 | 3:51:11 PM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 48 | 2 | PASS |
| Res_543158_10_02_19 #35.csv | 10/2/2019 | 4:27:05 PM | #35 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 90 | 3 | PASS |
| Res_543158_10_02_19 #36.csv | 10/2/2019 | 4:27:47 PM | #36 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 57.8 | 2 | PASS |
| Res_543158_10_02_19 #37.csv | 10/2/2019 | 4:28:43 PM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 22 | | 4 134 | 6 | PASS |
| Res_543158_10_02_19 #38.csv | 10/2/2019 | 4:28:59 PM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 260 | 15 | PASS |
| Res_543158_10_02_19 #39.csv | 10/2/2019 | 4:29:25 PM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 283 | 11 | PASS |
| Res_543158_10_02_19 #4.csv | 10/2/2019 | 9:29:34 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 102 | 3 | PASS |
| Res_543158_10_02_19 #40.csv | 10/2/2019 | 4:29:29 PM | #40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_02_19 #41.csv | 10/2/2019 | 4:30:02 PM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 31 | | 9 ND | | | | 19 | | 2 499 | 7 | PASS |
| Res_543158_10_02_19 #42.csv | 10/2/2019 | 4:31:38 PM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 28 | 3 | PASS |
| Res_543158_10_02_19 #43.csv | 10/2/2019 | 4:31:59 PM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 213 | 11 | PASS |
| Res_543158_10_02_19 #5.csv | 10/2/2019 | 9:30:09 AM | #5 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 1046 | 10 | PASS |
| Res_543158_10_02_19 #6.csv | 10/2/2019 | 9:30:54 AM | #6 | ND | | ND | | 40 | | 13 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.3 | | 1.5 157 | 3 | PASS |
| Res_543158_10_02_19 #7.csv | 10/2/2019 | 9:31:38 AM | #7 | ND | | ND | | 48 | | 15 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 447 | 6 | PASS |
| Res_543158_10_02_19 #8.csv | 10/2/2019 | 9:32:34 AM | #8 | ND | | ND | | 57 | | 16 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | | 2 189 | 4 | PASS |
| Res_543158_10_02_19 #9.csv | 10/2/2019 | 10:58:15 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.9 | | 1.7 174 | 3 | PASS |
| Res_543158_10_03_19 #1.csv | 10/3/2019 | 7:56:23 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_03_19 #10.csv | 10/3/2019 | 8:11:44 AM | #10 | ND | | ND | | 48 | | 12 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 79 | 2 | PASS |
| Res_543158_10_03_19 #11.csv | 10/3/2019 | 8:12:28 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 88 | 2 | PASS |
| Res_543158_10_03_19 #12.csv | 10/3/2019 | 8:14:01 AM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 138 | 4 | PASS |
| Res_543158_10_03_19 #13.csv | 10/3/2019 | 8:14:55 AM | #13 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 153 | 3 | PASS |
| Res_543158_10_03_19 #14.csv | 10/3/2019 | 8:15:50 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 129 | 3 | PASS |
| Res_543158_10_03_19 #15.csv | 10/3/2019 | 8:19:12 AM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 1693 | 11 | PASS |
| Res_543158_10_03_19 #16.csv | 10/3/2019 | 8:22:47 AM | #16 | ND | | ND | | ND | | | | | | | | 20 | | 6 | | ND | | ND | | ND | | ND | | | | ND | | 34 | 2 | PASS |
| Res_543158_10_03_19 #17.csv | 10/3/2019 | 8:23:13 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #18.csv | 10/3/2019 | 8:23:24 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 305 | 10 | PASS |
| Res_543158_10_03_19 #19.csv | 10/3/2019 | 8:23:50 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 119 | 6 | PASS |
| Res_543158_10_03_19 #2.csv | 10/3/2019 | 8:06:15 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.7 | | 2 280 | 5 | PASS |
| Res_543158_10_03_19 #20.csv | 10/3/2019 | 8:26:44 AM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 64 | 2 | PASS |
| Res_543158_10_03_19 #21.csv | 10/3/2019 | 8:40:30 AM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 84 | 2 | PASS |
| Res_543158_10_03_19 #22.csv | 10/3/2019 | 8:41:27 AM | #22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #23.csv | 10/3/2019 | 8:41:41 AM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 167 | 6 | PASS |
| Res_543158_10_03_19 #24.csv | 10/3/2019 | 8:41:48 AM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 214 | 13 | PASS |
| Res_543158_10_03_19 #25.csv | 10/3/2019 | 8:41:52 AM | #25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #26.csv | 10/3/2019 | 9:59:53 AM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 16 | | 5 ND | | ND | | | | ND | | 60.0 | 2 | PASS |
| Res_543158_10_03_19 #27.csv | 10/3/2019 | 10:00:34 AM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 73 | 2 | PASS |
| Res_543158_10_03_19 #28.csv | 10/3/2019 | 10:01:18 AM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 21 | | 7 ND | | | | ND | | 77 | 2 | PASS |
| Res_543158_10_03_19 #29.csv | 10/3/2019 | 11:13:08 AM | #29 | ND | | ND | | 56 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 69 | 2 | PASS |
| Res_543158_10_03_19 #3.csv | 10/3/2019 | 8:06:58 AM | #3 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 395 | 7 | PASS |
| Res_543158_10_03_19 #30.csv | 10/3/2019 | 11:28:11 AM | #30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #31.csv | 10/3/2019 | 11:28:50 AM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 94 | 2 | PASS |
| Res_543158_10_03_19 #32.csv | 10/3/2019 | 11:29:32 AM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 83 | 2 | PASS |
| Res_543158_10_03_19 #34.csv | 10/3/2019 | 2:30:53 PM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 95 | 4 | PASS |
| Res_543158_10_03_19 #35.csv | 10/3/2019 | 2:31:38 PM | #35 | ND | | ND | | 43 | | 12 | | | | | | 15 | | 4 | | ND | | ND | | ND | | ND | | | | ND | | 55.5 | 2 | PASS |
| Res_543158_10_03_19 #36.csv | 10/3/2019 | 2:32:24 PM | #36 | ND | | ND | | 58 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 656 | 6 | PASS |
| Res_543158_10_03_19 #37.csv | 10/3/2019 | 2:33:15 PM | #37 | ND | | ND | | 55 | | 16 | | | | | | ND | | | | ND | | ND | | 26 | | 8 ND | | | | ND | | 463 | 6 | PASS |
| Res_543158_10_03_19 #38.csv | 10/3/2019 | 2:34:04 PM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 26 | | 8 ND | | | | 5.5 | | 1.8 165 | 3 | PASS |
| Res_543158_10_03_19 #39.csv | 10/3/2019 | 2:34:35 PM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 334 | 11 | PASS |
| Res_543158_10_03_19 #4.csv | 10/3/2019 | 8:07:19 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 23 | | 4 333 | 10 | PASS |
| Res_543158_10_03_19 #40.csv | 10/3/2019 | 2:35:52 PM | #40 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 57.3 | 2 | PASS |
| Res_543158_10_03_19 #41.csv | 10/3/2019 | 2:36:34 PM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.1 | | 1.8 138 | 3 | PASS |
| Res_543158_10_03_19 #42.csv | 10/3/2019 | 2:37:18 PM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | | 1.6 134 | 3 | PASS |
| Res_543158_10_03_19 #43.csv | 10/3/2019 | 2:37:35 PM | #43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #44.csv | 10/3/2019 | 2:38:14 PM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.8 | | 1.7 62 | 2 | PASS |
| Res_543158_10_03_19 #46.csv | 10/3/2019 | 2:39:01 PM | #46 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.5 | | 1.8 93 | 3 | PASS |
| Res_543158_10_03_19 #47.csv | 10/3/2019 | 2:41:49 PM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 103 | 4 | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_03_19 #48.csv | 10/3/2019 | 2:42:26 PM | #48 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.7 | 1.7 | 162 | 3 | PASS |
| Res_543158_10_03_19 #49.csv | 10/3/2019 | 2:55:42 PM | #49 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.1 | 1.7 | 113 | 3 | PASS |
| Res_543158_10_03_19 #5.csv | 10/3/2019 | 8:08:02 AM | #5 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.1 | 1.7 | 109 | 3 | PASS |
| Res_543158_10_03_19 #50.csv | 10/3/2019 | 2:55:51 PM | #50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #51.csv | 10/3/2019 | 2:56:29 PM | #51 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15.0 | 1.9 | 72 | 2 | PASS |
| Res_543158_10_03_19 #52.csv | 10/3/2019 | 2:56:41 PM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 95 | 5 | PASS |
| Res_543158_10_03_19 #53.csv | 10/3/2019 | 2:56:53 PM | #53 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 23 | 5 | 60 | 6 | PASS |
| Res_543158_10_03_19 #54.csv | 10/3/2019 | 2:57:16 PM | #54 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 75 | 4 | PASS |
| Res_543158_10_03_19 #55.csv | 10/3/2019 | 3:18:38 PM | #55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #56.csv | 10/3/2019 | 3:18:43 PM | #56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #57.csv | 10/3/2019 | 3:19:18 PM | #57 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.1 | 1.9 | 196 | 4 | PASS |
| Res_543158_10_03_19 #58.csv | 10/3/2019 | 3:19:55 PM | #58 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.6 | 1.8 | 114 | 3 | PASS |
| Res_543158_10_03_19 #59.csv | 10/3/2019 | 3:20:19 PM | #59 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13 | 3 | 50 | 4 | PASS |
| Res_543158_10_03_19 #6.csv | 10/3/2019 | 8:08:44 AM | #6 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.1 | 1.8 | 74 | 2 | PASS |
| Res_543158_10_03_19 #60.csv | 10/3/2019 | 3:21:53 PM | #60 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 31 | | 9 | ND | | | ND | | 30 | 2 | PASS |
| Res_543158_10_03_19 #61.csv | 10/3/2019 | 3:22:06 PM | #61 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 35 | 4 | PASS |
| Res_543158_10_03_19 #62.csv | 10/3/2019 | 3:23:01 PM | #62 | ND | | ND | | ND | | | | | | | | ND | | | | 8 | | 2 | ND | ND | | ND | | | | 20.3 | 1.9 | 52 | 2 | PASS |
| Res_543158_10_03_19 #63.csv | 10/3/2019 | 3:37:08 PM | #63 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.9 | 1.7 | 32.8 | 2 | PASS |
| Res_543158_10_03_19 #65.csv | 10/3/2019 | 3:37:55 PM | #65 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.9 | 1.9 | 59 | 2 | PASS |
| Res_543158_10_03_19 #66.csv | 10/3/2019 | 3:38:40 PM | #66 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.8 | 1.8 | 177 | 3 | PASS |
| Res_543158_10_03_19 #67.csv | 10/3/2019 | 4:22:42 PM | #67 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7 | 2 | 35 | 2 | PASS |
| Res_543158_10_03_19 #68.csv | 10/3/2019 | 4:23:23 PM | #68 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.4 | 1.7 | 26.8 | 2 | PASS |
| Res_543158_10_03_19 #69.csv | 10/3/2019 | 4:24:05 PM | #69 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.3 | 1.7 | 51 | 2 | PASS |
| Res_543158_10_03_19 #7.csv | 10/3/2019 | 8:09:31 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 108 | 3 | PASS |
| Res_543158_10_03_19 #70.csv | 10/3/2019 | 4:24:44 PM | #70 | ND | | ND | | 41 | | 13 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.6 | 1.5 | 39.0 | 2 | PASS |
| Res_543158_10_03_19 #72.csv | 10/3/2019 | 4:26:43 PM | #72 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 46 | | 9 | ND | | | 7 | 2 | 57 | 3 | PASS |
| Res_543158_10_03_19 #73.csv | 10/3/2019 | 4:27:23 PM | #73 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.6 | 1.7 | 86 | 2 | PASS |
| Res_543158_10_03_19 #74.csv | 10/3/2019 | 4:28:11 PM | #74 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 40 | | 8 | ND | | | 9.7 | 1.9 | 52 | 2 | PASS |
| Res_543158_10_03_19 #75.csv | 10/3/2019 | 4:32:55 PM | #75 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.8 | 1.7 | 41.4 | 2 | PASS |
| Res_543158_10_03_19 #76.csv | 10/3/2019 | 4:33:02 PM | #76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #77.csv | 10/3/2019 | 4:33:36 PM | #77 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | 1.6 | 51.0 | 2 | PASS |
| Res_543158_10_03_19 #78.csv | 10/3/2019 | 5:09:06 PM | #78 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.9 | 1.6 | 99 | 2 | PASS |
| Res_543158_10_03_19 #79.csv | 10/3/2019 | 5:09:48 PM | #79 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | 1.7 | 92 | 3 | PASS |
| Res_543158_10_03_19 #8.csv | 10/3/2019 | 8:10:56 AM | #8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #80.csv | 10/3/2019 | 5:10:28 PM | #80 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 28 | | 9 | ND | | | 8 | 2 | 152 | 4 | PASS |
| Res_543158_10_03_19 #81.csv | 10/3/2019 | 5:11:08 PM | #81 | ND | | ND | | 41 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.6 | 1.6 | 182 | 3 | PASS |
| Res_543158_10_03_19 #82.csv | 10/3/2019 | 5:11:55 PM | #82 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 36.3 | 2 | PASS |
| Res_543158_10_03_19 #83.csv | 10/3/2019 | 5:34:13 PM | #83 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 371 | 12 | PASS |
| Res_543158_10_03_19 #84.csv | 10/3/2019 | 5:34:47 PM | #84 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 100 | 3 | PASS |
| Res_543158_10_03_19 #85.csv | 10/3/2019 | 5:35:38 PM | #85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #86.csv | 10/3/2019 | 5:35:51 PM | #86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #87.csv | 10/3/2019 | 5:40:44 PM | #87 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 112 | 2 | PASS |
| Res_543158_10_03_19 #88.csv | 10/3/2019 | 5:41:26 PM | #88 | ND | | ND | | 49 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.3 | 1.6 | 124 | 3 | PASS |
| Res_543158_10_03_19 #89.csv | 10/3/2019 | 5:41:47 PM | #89 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 49 | 4 | PASS |
| Res_543158_10_03_19 #9.csv | 10/3/2019 | 8:11:08 AM | #9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_03_19 #90.csv | 10/3/2019 | 5:42:45 PM | #90 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 66 | 2 | PASS |
| Res_543158_10_04_19 #1.csv | 10/4/2019 | 8:31:10 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_04_19 #10.csv | 10/4/2019 | 9:12:34 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 85 | 7 | PASS |
| Res_543158_10_04_19 #11.csv | 10/4/2019 | 9:15:33 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | 1.3 | 66.5 | 2 | PASS |
| Res_543158_10_04_19 #12.csv | 10/4/2019 | 9:23:38 AM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 151 | 7 | PASS |
| Res_543158_10_04_19 #13.csv | 10/4/2019 | 9:24:30 AM | #13 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 79 | 2 | PASS |
| Res_543158_10_04_19 #14.csv | 10/4/2019 | 9:27:23 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 168 | 6 | PASS |
| Res_543158_10_04_19 #15.csv | 10/4/2019 | 9:28:14 AM | #15 | ND | | ND | | 40 | | 13 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 32.5 | 2 | PASS |
| Res_543158_10_04_19 #16.csv | 10/4/2019 | 9:29:03 AM | #16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_04_19 #17.csv | 10/4/2019 | 9:29:10 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_04_19 #18.csv | 10/4/2019 | 9:30:36 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.5 | 1.2 | 60.0 | 2 | PASS |
| Res_543158_10_04_19 #19.csv | 10/4/2019 | 10:13:04 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 170 | 3 | PASS |
| Res_543158_10_04_19 #2.csv | 10/4/2019 | 8:40:31 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.2 | 1.4 | 41.9 | 2 | PASS |
| Res_543158_10_04_19 #20.csv | 10/4/2019 | 10:13:22 AM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 213 | 9 | PASS |
| Res_543158_10_04_19 #21.csv | 10/4/2019 | 10:14:58 AM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.0 | 1.3 | 28.4 | 1 | PASS |
| Res_543158_10_04_19 #22.csv | 10/4/2019 | 10:17:09 AM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.3 | 1.5 | 36.1 | 2 | PASS |
| Res_543158_10_04_19 #24.csv | 10/4/2019 | 10:19:17 AM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 132 | 8 | PASS |
| Res_543158_10_04_19 #25.csv | 10/4/2019 | 10:20:08 AM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.7 | 1.6 | 87 | 2 | PASS |
| Res_543158_10_04_19 #26.csv | 10/4/2019 | 10:21:34 AM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 46 | | 8 | ND | | | 15.4 | 1.9 | 79 | 2 | PASS |
| Res_543158_10_04_19 #27.csv | 10/4/2019 | 10:23:40 AM | #27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_04_19 #28.csv | 10/4/2019 | 10:24:28 AM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 34 | | 11 | ND | | | ND | | 83 | 4 | PASS |
| Res_543158_10_04_19 #29.csv | 10/4/2019 | 10:24:32 AM | #29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_04_19 #30.csv | 10/4/2019 | 10:25:57 AM | #30 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 29 | | 8 | 7 | 2 | | 9.6 | 1.9 | 72 | 2 | PASS |
| Res_543158_10_04_19 #31.csv | 10/4/2019 | 10:45:32 AM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.1 | 1.7 | 89 | 2 | PASS |
| Res_543158_10_04_19 #32.csv | 10/4/2019 | 10:47:40 AM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.3 | 1.5 | 147 | 3 | PASS |
| Res_543158_10_04_19 #33.csv | 10/4/2019 | 10:50:22 AM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 33 | 3 | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_04_19 #34.csv | 10/4/2019 | 10:51:03 AM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 168 | 9 | PASS |
| Res_543158_10_04_19 #35.csv | 10/4/2019 | 10:53:56 AM | #35 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.0 | | 1.4 | 45.7 | 2 PASS |
| Res_543158_10_04_19 #36.csv | 10/4/2019 | 10:56:25 AM | #36 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.8 | | 1.7 | 67 | 2 PASS |
| Res_543158_10_04_19 #37.csv | 10/4/2019 | 10:59:43 AM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 21 | | 6 | ND | | | ND | | 251 | 4 | PASS |
| Res_543158_10_04_19 #39.csv | 10/4/2019 | 11:03:47 AM | #39 | ND | | ND | | ND | | | | | | | | 15 | | 4 | | ND | | ND | | ND | | ND | | | | ND | | 109 | 2 | PASS |
| Res_543158_10_04_19 #4.csv | 10/4/2019 | 8:53:56 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.5 | | 1.4 | 40.1 | 2 PASS |
| Res_543158_10_04_19 #40.csv | 10/4/2019 | 11:07:15 AM | #40 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 29 | | 7 | 9 | | 2 | ND | | 237 | 4 | PASS |
| Res_543158_10_04_19 #41.csv | 10/4/2019 | 11:14:04 AM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 236 | 3 | PASS |
| Res_543158_10_04_19 #42.csv | 10/4/2019 | 11:17:12 AM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.2 | | 1.5 | 72 | 2 PASS |
| Res_543158_10_04_19 #43.csv | 10/4/2019 | 11:21:16 AM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.7 | | 1.3 | 124 | 2 PASS |
| Res_543158_10_04_19 #44.csv | 10/4/2019 | 11:22:41 AM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.7 | | 1.3 | 110 | 2 PASS |
| Res_543158_10_04_19 #45.csv | 10/4/2019 | 11:26:45 AM | #45 | ND | | ND | | 43 | | 12 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.7 | | 1.3 | 146 | 2 PASS |
| Res_543158_10_04_19 #46.csv | 10/4/2019 | 11:28:53 AM | #46 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | | 2 | 318 | 5 PASS |
| Res_543158_10_04_19 #47.csv | 10/4/2019 | 11:30:18 AM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.8 | | 1.4 | 291 | 3 PASS |
| Res_543158_10_04_19 #48.csv | 10/4/2019 | 11:32:53 AM | #48 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 64.6 | 2 | PASS |
| Res_543158_10_04_19 #49.csv | 10/4/2019 | 11:35:48 AM | #49 | ND | | ND | | 63 | | 13 | | | | | | ND | | | | ND | | ND | | 26 | | 7 | ND | | | 12.4 | | 1.7 | 186 | 3 PASS |
| Res_543158_10_04_19 #5.csv | 10/4/2019 | 8:56:02 AM | #5 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 27 | 5 | PASS |
| Res_543158_10_04_19 #50.csv | 10/4/2019 | 11:39:36 AM | #50 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.8 | | 1.4 | 54.1 | 2 PASS |
| Res_543158_10_04_19 #51.csv | 10/4/2019 | 11:45:01 AM | #51 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.8 | | 1.3 | 87.9 | 2 PASS |
| Res_543158_10_04_19 #52.csv | 10/4/2019 | 11:48:12 AM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 40 | | 8 | ND | | | 5.7 | | 1.8 | 78 | 2 PASS |
| Res_543158_10_04_19 #53.csv | 10/4/2019 | 11:51:05 AM | #53 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.6 | | 1.3 | 52.4 | 2 PASS |
| Res_543158_10_04_19 #6.csv | 10/4/2019 | 9:10:22 AM | #6 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.2 | | 1.6 | 186 | 3 PASS |
| Res_543158_10_04_19 #7.csv | 10/4/2019 | 9:11:38 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10 | | 2 | 105 | 4 PASS |
| Res_543158_10_04_19 #8.csv | 10/4/2019 | 9:12:05 AM | #8 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 122 | 7 | PASS |
| Res_543158_10_04_19 #9.csv | 10/4/2019 | 9:12:24 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 99 | 5 | PASS |
| Res_543158_10_07_19 #1.csv | 10/7/2019 | 7:50:11 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_07_19 #10.csv | 10/7/2019 | 8:57:55 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.0 | | 1.5 | 110 | 2 PASS |
| Res_543158_10_07_19 #100.csv | 10/7/2019 | 4:23:32 PM | #100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #101.csv | 10/7/2019 | 4:25:04 PM | #101 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.6 | | 1.6 | 63 | 2 PASS |
| Res_543158_10_07_19 #102.csv | 10/7/2019 | 4:31:16 PM | #102 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.8 | | 1.6 | 59 | 2 PASS |
| Res_543158_10_07_19 #103.csv | 10/7/2019 | 4:35:04 PM | #103 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.0 | | 1.5 | 12.8 | 1 PASS |
| Res_543158_10_07_19 #104.csv | 10/7/2019 | 4:40:42 PM | #104 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 33 | | 8 | ND | | | 9.8 | | 1.9 | 14.4 | 2 PASS |
| Res_543158_10_07_19 #105.csv | 10/7/2019 | 4:44:09 PM | #105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #106.csv | 10/7/2019 | 4:44:47 PM | #106 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.3 | | 1.7 | 19.9 | 2 PASS |
| Res_543158_10_07_19 #107.csv | 10/7/2019 | 4:45:05 PM | #107 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #108.csv | 10/7/2019 | 4:45:41 PM | #108 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.4 | | 1.7 | 95 | 3 PASS |
| Res_543158_10_07_19 #109.csv | 10/7/2019 | 4:46:23 PM | #109 | ND | | ND | | ND | | | | | | | | 20 | | 6 | | ND | | ND | | ND | | ND | | | | 11.5 | | 1.8 | 69 | 2 PASS |
| Res_543158_10_07_19 #11.csv | 10/7/2019 | 8:59:32 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.2 | | 1.5 | 169 | 3 PASS |
| Res_543158_10_07_19 #110.csv | 10/7/2019 | 4:47:11 PM | #110 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | | 1.7 | 27.1 | 2 PASS |
| Res_543158_10_07_19 #111.csv | 10/7/2019 | 4:48:29 PM | #111 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.2 | | 1.8 | 82 | 2 PASS |
| Res_543158_10_07_19 #112.csv | 10/7/2019 | 4:49:20 PM | #112 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.6 | | 1.8 | 86 | 3 PASS |
| Res_543158_10_07_19 #113.csv | 10/7/2019 | 4:50:03 PM | #113 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.5 | | 1.8 | 38 | 2 PASS |
| Res_543158_10_07_19 #114.csv | 10/7/2019 | 4:53:38 PM | #114 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.8 | | 1.7 | 17.1 | 2 PASS |
| Res_543158_10_07_19 #115.csv | 10/7/2019 | 4:54:19 PM | #115 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.5 | | 1.7 | 31.0 | 2 PASS |
| Res_543158_10_07_19 #12.csv | 10/7/2019 | 9:03:44 AM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.0 | | 1.6 | 41.9 | 2 PASS |
| Res_543158_10_07_19 #13.csv | 10/7/2019 | 9:06:33 AM | #13 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.6 | | 1.4 | 72.3 | 2 PASS |
| Res_543158_10_07_19 #14.csv | 10/7/2019 | 9:10:01 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.9 | | 1.5 | 125 | 3 PASS |
| Res_543158_10_07_19 #15.csv | 10/7/2019 | 9:11:37 AM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.4 | | 1.5 | 74 | 2 PASS |
| Res_543158_10_07_19 #16.csv | 10/7/2019 | 9:15:55 AM | #16 | ND | | ND | | ND | | | | | | | | 20 | | 4 | | ND | | ND | | ND | | ND | | | | 5.1 | | 1.3 | 187 | 3 PASS |
| Res_543158_10_07_19 #17.csv | 10/7/2019 | 9:17:32 AM | #17 | ND | | ND | | 38 | | 11 | | | | | | 20 | | 4 | | ND | | ND | | ND | | ND | | | | 3.9 | | 1.3 | 188 | 3 PASS |
| Res_543158_10_07_19 #18.csv | 10/7/2019 | 9:20:25 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.4 | | 1.6 | 133 | 3 PASS |
| Res_543158_10_07_19 #19.csv | 10/7/2019 | 9:21:03 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 63 | 4 | PASS |
| Res_543158_10_07_19 #2.csv | 10/7/2019 | 8:46:49 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.9 | | 1.4 | 47.8 | 2 PASS |
| Res_543158_10_07_19 #20.csv | 10/7/2019 | 9:22:34 AM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.0 | | 1.3 | 64.4 | 2 PASS |
| Res_543158_10_07_19 #21.csv | 10/7/2019 | 9:24:03 AM | #21 | ND | | ND | | 60 | | 16 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 212 | 4 | PASS |
| Res_543158_10_07_19 #22.csv | 10/7/2019 | 9:25:27 AM | #22 | ND | | ND | | 34 | | 11 | | | | | | 12 | | 4 | | ND | | ND | | ND | | ND | | | | 6.8 | | 1.3 | 207 | 3 PASS |
| Res_543158_10_07_19 #23.csv | 10/7/2019 | 9:29:38 AM | #23 | ND | | ND | | ND | | | | | | | | 20 | | 5 | | ND | | ND | | ND | | ND | | | | ND | | 48.5 | 2 | PASS |
| Res_543158_10_07_19 #24.csv | 10/7/2019 | 9:31:43 AM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.7 | | 1.6 | 86 | 2 PASS |
| Res_543158_10_07_19 #25.csv | 10/7/2019 | 9:36:10 AM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | | 1.5 | 69.5 | 2 PASS |
| Res_543158_10_07_19 #26.csv | 10/7/2019 | 9:42:51 AM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 24 | | 7 | ND | | | 10.2 | | 1.7 | 37.0 | 2 PASS |
| Res_543158_10_07_19 #27.csv | 10/7/2019 | 9:45:10 AM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 70.9 | 2 | PASS |
| Res_543158_10_07_19 #28.csv | 10/7/2019 | 9:47:29 AM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 114 | 2 | PASS |
| Res_543158_10_07_19 #29.csv | 10/7/2019 | 9:47:55 AM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 165 | 6 | PASS |
| Res_543158_10_07_19 #30.csv | 10/7/2019 | 9:49:19 AM | #30 | ND | | ND | | ND | | | | | | | | 24 | | 5 | | ND | | ND | | ND | | ND | | | | ND | | 168 | 3 | PASS |
| Res_543158_10_07_19 #31.csv | 10/7/2019 | 9:50:56 AM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | | 2 | 85 | 3 PASS |
| Res_543158_10_07_19 #32.csv | 10/7/2019 | 9:51:21 AM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.8 | | 1.9 | 90 | 3 PASS |
| Res_543158_10_07_19 #33.csv | 10/7/2019 | 9:52:47 AM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.2 | | 1.4 | 86 | 2 PASS |
| Res_543158_10_07_19 #34.csv | 10/7/2019 | 9:59:41 AM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.1 | | 1.5 | 133 | 3 PASS |
| Res_543158_10_07_19 #35.csv | 10/7/2019 | 10:00:39 AM | #35 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.1 | | 1.6 | 119 | 3 PASS |
| Res_543158_10_07_19 #36.csv | 10/7/2019 | 10:02:26 AM | #36 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.7 | | 1.5 | 75 | 2 PASS |
| Res_543158_10_07_19 #37.csv | 10/7/2019 | 10:06:30 AM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.8 | | 1.4 | 12.7 | 1 PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_07_19 #38.csv | 10/7/2019 | 10:10:20 AM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.5 | 1.5 | 17.3 | 1 | PASS |
| Res_543158_10_07_19 #39.csv | 10/7/2019 | 10:13:35 AM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.1 | 1.3 | 109 | 2 | PASS |
| Res_543158_10_07_19 #4.csv | 10/7/2019 | 8:49:44 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.2 | 1.8 | 435 | 5 | PASS |
| Res_543158_10_07_19 #40.csv | 10/7/2019 | 10:15:06 AM | #40 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 128 | 2 | PASS |
| Res_543158_10_07_19 #41.csv | 10/7/2019 | 10:24:05 AM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | 1.5 | 41.7 | 2 | PASS |
| Res_543158_10_07_19 #42.csv | 10/7/2019 | 10:27:48 AM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | 1.5 | 66.1 | 2 | PASS |
| Res_543158_10_07_19 #43.csv | 10/7/2019 | 10:33:40 AM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.2 | 1.3 | 81.5 | 2 | PASS |
| Res_543158_10_07_19 #44.csv | 10/7/2019 | 10:36:38 AM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 106 | 2 | PASS |
| Res_543158_10_07_19 #45.csv | 10/7/2019 | 10:38:18 AM | #45 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 82.6 | 2 | PASS |
| Res_543158_10_07_19 #46.csv | 10/7/2019 | 10:41:10 AM | #46 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.2 | 1.9 | 70 | 2 | PASS |
| Res_543158_10_07_19 #47.csv | 10/7/2019 | 10:45:08 AM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 26 | | 7 | ND | | | 6.5 | 1.5 | 71 | 2 | PASS |
| Res_543158_10_07_19 #48.csv | 10/7/2019 | 10:50:22 AM | #48 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15.9 | 1.6 | 55.6 | 2 | PASS |
| Res_543158_10_07_19 #49.csv | 10/7/2019 | 10:56:29 AM | #49 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.4 | 1.5 | 59.7 | 2 | PASS |
| Res_543158_10_07_19 #5.csv | 10/7/2019 | 8:49:58 AM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #50.csv | 10/7/2019 | 11:02:37 AM | #50 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.6 | 1.5 | 21.0 | 2 | PASS |
| Res_543158_10_07_19 #52.csv | 10/7/2019 | 11:04:52 AM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | 6.6 | | 2 | ND | ND | | ND | | | | 8.7 | 1.5 | 19.4 | 1 | PASS |
| Res_543158_10_07_19 #53.csv | 10/7/2019 | 11:06:57 AM | #53 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.6 | 1.4 | 6.4 | 1 | PASS |
| Res_543158_10_07_19 #54.csv | 10/7/2019 | 11:31:04 AM | #54 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.7 | 1.6 | 62 | 2 | PASS |
| Res_543158_10_07_19 #55.csv | 10/7/2019 | 11:35:15 AM | #55 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.7 | 1.7 | 76 | 2 | PASS |
| Res_543158_10_07_19 #56.csv | 10/7/2019 | 11:38:09 AM | #56 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.2 | 1.5 | 190 | 3 | PASS |
| Res_543158_10_07_19 #57.csv | 10/7/2019 | 11:48:36 AM | #57 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.5 | 1.7 | 142 | 3 | PASS |
| Res_543158_10_07_19 #58.csv | 10/7/2019 | 11:49:37 AM | #58 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 54 | 2 | PASS |
| Res_543158_10_07_19 #59.csv | 10/7/2019 | 11:50:16 AM | #59 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.1 | 1.7 | 63 | 2 | PASS |
| Res_543158_10_07_19 #6.csv | 10/7/2019 | 8:51:31 AM | #6 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.7 | 1.3 | 106 | 2 | PASS |
| Res_543158_10_07_19 #60.csv | 10/7/2019 | 11:51:24 AM | #60 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 93 | 3 | 30 | 3 | PASS |
| Res_543158_10_07_19 #61.csv | 10/7/2019 | 11:52:14 AM | #61 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.1 | 1.6 | 129 | 3 | PASS |
| Res_543158_10_07_19 #62.csv | 10/7/2019 | 11:53:00 AM | #62 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.1 | 1.7 | 42.7 | 2 | PASS |
| Res_543158_10_07_19 #63.csv | 10/7/2019 | 11:54:30 AM | #63 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.6 | 1.9 | 53 | 2 | PASS |
| Res_543158_10_07_19 #64.csv | 10/7/2019 | 11:55:20 AM | #64 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.6 | 1.8 | 74 | 2 | PASS |
| Res_543158_10_07_19 #65.csv | 10/7/2019 | 11:57:20 AM | #65 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.5 | 1.9 | 86 | 3 | PASS |
| Res_543158_10_07_19 #66.csv | 10/7/2019 | 12:03:20 PM | #66 | ND | | ND | | 51 | | 16 | | | | | | ND | | | | ND | | ND | | 27 | | 8 | ND | | | 6.3 | 1.9 | 82 | 3 | PASS |
| Res_543158_10_07_19 #67.csv | 10/7/2019 | 2:12:24 PM | #67 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 23 | | 7 | ND | | | 6.0 | 1.7 | 50 | 2 | PASS |
| Res_543158_10_07_19 #68.csv | 10/7/2019 | 2:13:09 PM | #68 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 8.4 | 2 | PASS |
| Res_543158_10_07_19 #69.csv | 10/7/2019 | 2:13:51 PM | #69 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 34.6 | 2 | PASS |
| Res_543158_10_07_19 #7.csv | 10/7/2019 | 8:53:49 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | 1.4 | 76.6 | 2 | PASS |
| Res_543158_10_07_19 #70.csv | 10/7/2019 | 2:14:58 PM | #70 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.1 | 1.7 | 54 | 2 | PASS |
| Res_543158_10_07_19 #71.csv | 10/7/2019 | 2:15:41 PM | #71 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.5 | 1.8 | 35.1 | 2 | PASS |
| Res_543158_10_07_19 #72.csv | 10/7/2019 | 2:16:48 PM | #72 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 15.3 | 1.9 | 14.7 | 2 | PASS |
| Res_543158_10_07_19 #73.csv | 10/7/2019 | 2:18:14 PM | #73 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 107 | 3 | PASS |
| Res_543158_10_07_19 #74.csv | 10/7/2019 | 2:18:37 PM | #74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #75.csv | 10/7/2019 | 2:19:15 PM | #75 | ND | | ND | | 85 | | 15 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.0 | 1.7 | 120 | 3 | PASS |
| Res_543158_10_07_19 #76.csv | 10/7/2019 | 2:32:16 PM | #76 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.3 | 1.4 | 117 | 2 | PASS |
| Res_543158_10_07_19 #77.csv | 10/7/2019 | 2:34:27 PM | #77 | ND | | ND | | ND | | | | | | | | ND | | | | 7.9 | | 2 | 15 | 4 | ND | ND | | | | 10.3 | 1.4 | 117 | 2 | PASS |
| Res_543158_10_07_19 #78.csv | 10/7/2019 | 2:40:41 PM | #78 | ND | | ND | | 64 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.1 | 1.8 | 237 | 4 | PASS |
| Res_543158_10_07_19 #79.csv | 10/7/2019 | 2:40:48 PM | #79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #8.csv | 10/7/2019 | 8:56:15 AM | #8 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 139 | 3 | PASS |
| Res_543158_10_07_19 #80.csv | 10/7/2019 | 2:41:27 PM | #80 | ND | | ND | | 56 | | 17 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10 | 2 | 429 | 6 | PASS |
| Res_543158_10_07_19 #81.csv | 10/7/2019 | 2:43:00 PM | #81 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #82.csv | 10/7/2019 | 2:43:20 PM | #82 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | 3 | 19 | 3 | PASS |
| Res_543158_10_07_19 #83.csv | 10/7/2019 | 2:43:55 PM | #83 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.1 | 1.8 | 21.1 | 2 | PASS |
| Res_543158_10_07_19 #84.csv | 10/7/2019 | 3:14:53 PM | #84 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.9 | 1.7 | 44.2 | 2 | PASS |
| Res_543158_10_07_19 #85.csv | 10/7/2019 | 3:15:39 PM | #85 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.1 | 1.9 | 17.7 | 2 | PASS |
| Res_543158_10_07_19 #86.csv | 10/7/2019 | 3:16:27 PM | #86 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.2 | 1.7 | 16.9 | 2 | PASS |
| Res_543158_10_07_19 #87.csv | 10/7/2019 | 3:33:49 PM | #87 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.2 | 1.8 | 64 | 2 | PASS |
| Res_543158_10_07_19 #88.csv | 10/7/2019 | 3:34:31 PM | #88 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 4.3 | 1 | PASS |
| Res_543158_10_07_19 #89.csv | 10/7/2019 | 3:48:51 PM | #89 | 39 | | 4 | ND | 28 | | 6 | | | | | | ND | | | | ND | | ND | | 35 | | 4 | 8.0 | 1 | | 97.0 | 2 | ND | | PASS |
| Res_543158_10_07_19 #9.csv | 10/7/2019 | 8:56:43 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 137 | 5 | PASS |
| Res_543158_10_07_19 #90.csv | 10/7/2019 | 3:50:17 PM | #90 | 40 | | 4 | ND | 29 | | 6 | | | | | | ND | | | | 9 | | 3 | ND | 38 | | 4 | 9.2 | 1 | | 97.2 | 1.9 | ND | | PASS |
| Res_543158_10_07_19 #91.csv | 10/7/2019 | 3:53:12 PM | #91 | 38 | | 6 | ND | ND | | | | | | | | ND | | | | ND | | ND | | 51 | | 6 | 13.9 | 2 | | 141 | 3 | 14 | 3 | PASS |
| Res_543158_10_07_19 #92.csv | 10/7/2019 | 3:57:14 PM | #92 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.0 | 1.7 | 51.1 | 2 | PASS |
| Res_543158_10_07_19 #93.csv | 10/7/2019 | 4:03:41 PM | #93 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.7 | 1.5 | 16.2 | 1 | PASS |
| Res_543158_10_07_19 #94.csv | 10/7/2019 | 4:09:24 PM | #94 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.1 | 1.5 | 15.9 | 1 | PASS |
| Res_543158_10_07_19 #95.csv | 10/7/2019 | 4:13:34 PM | #95 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 26 | | 7 | ND | | | 6.6 | 1.5 | 20.0 | 2 | PASS |
| Res_543158_10_07_19 #96.csv | 10/7/2019 | 4:15:11 PM | #96 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.0 | 1.5 | 65.9 | 2 | PASS |
| Res_543158_10_07_19 #97.csv | 10/7/2019 | 4:15:56 PM | #97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_07_19 #98.csv | 10/7/2019 | 4:17:26 PM | #98 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 15 | | 5 | ND | ND | | | | 9.3 | 1.5 | 74 | 2 | PASS |
| Res_543158_10_07_19 #99.csv | 10/7/2019 | 4:23:16 PM | #99 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.9 | 1.5 | 60.8 | 2 | PASS |
| Res_543158_10_08_19 #1.csv | 10/8/2019 | 7:22:48 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_08_19 #10.csv | 10/8/2019 | 9:01:20 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 24 | | 5 | ND | ND | | | | 11.8 | 1.5 | 30.6 | 2 | PASS |
| Res_543158_10_08_19 #11.csv | 10/8/2019 | 9:05:55 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.3 | 1.9 | 37 | 2 | PASS |
| Res_543158_10_08_19 #12.csv | 10/8/2019 | 9:09:33 AM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.0 | 1.6 | 112 | 3 | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_08_19 #13.csv | 10/8/2019 | 9:11:11 AM | #13 | ND | | ND | | ND | | | | | | | | ND | | | | 10 | 2 | ND | | 25 | 8 | ND | | | | 10.1 | 1.9 | 88 | 3 | PASS |
| Res_543158_10_08_19 #14.csv | 10/8/2019 | 9:13:59 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 33 | 7 | ND | | | | 12.3 | 1.8 | 85 | 2 | PASS |
| Res_543158_10_08_19 #15.csv | 10/8/2019 | 9:17:19 AM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 22 | 7 | ND | | | | 10.0 | 1.7 | 85 | 2 | PASS |
| Res_543158_10_08_19 #16.csv | 10/8/2019 | 9:19:44 AM | #16 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | 1.6 | 74 | 2 | PASS |
| Res_543158_10_08_19 #17.csv | 10/8/2019 | 9:23:23 AM | #17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_08_19 #18.csv | 10/8/2019 | 9:24:03 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.2 | 1.7 | 67 | 2 | PASS |
| Res_543158_10_08_19 #19.csv | 10/8/2019 | 9:36:21 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.4 | 1.9 | 134 | 3 | PASS |
| Res_543158_10_08_19 #2.csv | 10/8/2019 | 8:07:31 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14.3 | 1.9 | 8.6 | 2 | PASS |
| Res_543158_10_08_19 #20.csv | 10/8/2019 | 9:38:09 AM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.9 | 1.6 | 69 | 2 | PASS |
| Res_543158_10_08_19 #21.csv | 10/8/2019 | 9:41:45 AM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.6 | 1.5 | 9.4 | 1 | PASS |
| Res_543158_10_08_19 #22.csv | 10/8/2019 | 9:43:10 AM | #22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_08_19 #23.csv | 10/8/2019 | 9:44:37 AM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.3 | 1.5 | 5.9 | 1 | PASS |
| Res_543158_10_08_19 #24.csv | 10/8/2019 | 9:48:12 AM | #24 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.1 | 1.5 | 47.5 | 2 | PASS |
| Res_543158_10_08_19 #25.csv | 10/8/2019 | 9:53:04 AM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.9 | 1.6 | 28.0 | 2 | PASS |
| Res_543158_10_08_19 #26.csv | 10/8/2019 | 9:56:31 AM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | 6.4 | 2 | ND | | ND | | ND | | | | 10.3 | 1.5 | 14.0 | 1 | PASS |
| Res_543158_10_08_19 #27.csv | 10/8/2019 | 9:59:10 AM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.1 | 1.5 | 17.3 | 1 | PASS |
| Res_543158_10_08_19 #28.csv | 10/8/2019 | 10:01:35 AM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | 7 | 2 | ND | | ND | | ND | | | | 10.3 | 1.5 | 12.1 | 1 | PASS |
| Res_543158_10_08_19 #29.csv | 10/8/2019 | 10:04:27 AM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.6 | 1.7 | 94 | 2 | PASS |
| Res_543158_10_08_19 #3.csv | 10/8/2019 | 8:21:14 AM | #3 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.6 | 1.7 | 87 | 2 | PASS |
| Res_543158_10_08_19 #30.csv | 10/8/2019 | 10:08:04 AM | #30 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.1 | 1.5 | 37.6 | 2 | PASS |
| Res_543158_10_08_19 #31.csv | 10/8/2019 | 12:46:14 PM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 47 | 11 | ND | | | | 11 | 3 | 20 | 2 | PASS |
| Res_543158_10_08_19 #32.csv | 10/8/2019 | 12:47:19 PM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 34 | 9 | ND | | | | 11 | 2 | 13.1 | 2 | PASS |
| Res_543158_10_08_19 #33.csv | 10/8/2019 | 12:48:15 PM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.0 | 1.9 | 28.3 | 2 | PASS |
| Res_543158_10_08_19 #34.csv | 10/8/2019 | 12:49:06 PM | #34 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.2 | 1.9 | 195 | 4 | PASS |
| Res_543158_10_08_19 #35.csv | 10/8/2019 | 1:05:48 PM | #35 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 167 | 5 | 51 | 4 | PASS |
| Res_543158_10_08_19 #36.csv | 10/8/2019 | 1:06:31 PM | #36 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | 2 | 57 | 2 | PASS |
| Res_543158_10_08_19 #37.csv | 10/8/2019 | 1:07:29 PM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | 2 | 54 | 2 | PASS |
| Res_543158_10_08_19 #38.csv | 10/8/2019 | 1:07:38 PM | #38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_08_19 #39.csv | 10/8/2019 | 1:08:15 PM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 31 | 8 | ND | | | | 97 | 3 | 28 | 3 | PASS |
| Res_543158_10_08_19 #4.csv | 10/8/2019 | 8:22:53 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.0 | 1.6 | 61 | 2 | PASS |
| Res_543158_10_08_19 #40.csv | 10/8/2019 | 1:08:55 PM | #40 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19.2 | 2 | 40 | 2 | PASS |
| Res_543158_10_08_19 #41.csv | 10/8/2019 | 1:09:35 PM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.6 | 1.9 | 91 | 3 | PASS |
| Res_543158_10_08_19 #42.csv | 10/8/2019 | 1:10:18 PM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 29 | 8 | ND | | | | 8.7 | 2 | 83 | 3 | PASS |
| Res_543158_10_08_19 #43.csv | 10/8/2019 | 1:11:08 PM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 33 | 8 | ND | | | | 7.3 | 1.9 | 69 | 3 | PASS |
| Res_543158_10_08_19 #44.csv | 10/8/2019 | 1:11:58 PM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.8 | 1.7 | 93 | 2 | PASS |
| Res_543158_10_08_19 #45.csv | 10/8/2019 | 1:15:09 PM | #45 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.9 | 2 | 75 | 3 | PASS |
| Res_543158_10_08_19 #46.csv | 10/8/2019 | 1:15:58 PM | #46 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12.0 | 1.8 | 67 | 2 | PASS |
| Res_543158_10_08_19 #47.csv | 10/8/2019 | 2:30:17 PM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9.8 | 1.9 | 105 | 3 | PASS |
| Res_543158_10_08_19 #48.csv | 10/8/2019 | 2:31:03 PM | #48 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 21.3 | 2 | PASS |
| Res_543158_10_08_19 #49.csv | 10/8/2019 | 2:31:54 PM | #49 | ND | | ND | | ND | | | | | | | | ND | | | | 9 | 3 | ND | | ND | | ND | | | | 8 | 2 | 66 | 3 | PASS |
| Res_543158_10_08_19 #5.csv | 10/8/2019 | 8:27:37 AM | #5 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | 1.8 | 64 | 2 | PASS |
| Res_543158_10_08_19 #51.csv | 10/8/2019 | 2:32:58 PM | #51 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 208 | 4 | PASS |
| Res_543158_10_08_19 #52.csv | 10/8/2019 | 3:19:09 PM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.9 | 1.8 | 51 | 2 | PASS |
| Res_543158_10_08_19 #53.csv | 10/8/2019 | 3:19:18 PM | #53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_08_19 #54.csv | 10/8/2019 | 3:19:56 PM | #54 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | 2 | 82 | 3 | PASS |
| Res_543158_10_08_19 #55.csv | 10/8/2019 | 3:20:38 PM | #55 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 444 | 6 | PASS |
| Res_543158_10_08_19 #56.csv | 10/8/2019 | 3:21:46 PM | #56 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.9 | 1.6 | 43.4 | 2 | PASS |
| Res_543158_10_08_19 #57.csv | 10/8/2019 | 3:22:25 PM | #57 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | 1.6 | 22.7 | 2 | PASS |
| Res_543158_10_08_19 #58.csv | 10/8/2019 | 3:23:15 PM | #58 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.1 | 1.7 | 62 | 2 | PASS |
| Res_543158_10_08_19 #59.csv | 10/8/2019 | 3:23:54 PM | #59 | ND | | ND | | ND | | | | | | | | 17 | 5 | | | ND | | ND | | ND | | ND | | | | 47 | 2 | 93 | 3 | PASS |
| Res_543158_10_08_19 #6.csv | 10/8/2019 | 8:35:14 AM | #6 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.5 | 1.6 | 43.0 | 2 | PASS |
| Res_543158_10_08_19 #60.csv | 10/8/2019 | 3:24:51 PM | #60 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17.6 | 1.9 | 216 | 4 | PASS |
| Res_543158_10_08_19 #61.csv | 10/8/2019 | 3:25:38 PM | #61 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8 | 2 | 66 | 3 | PASS |
| Res_543158_10_08_19 #62.csv | 10/8/2019 | 3:26:45 PM | #62 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 21 | 7 | ND | | | | 5.6 | 1.6 | 18.3 | 2 | PASS |
| Res_543158_10_08_19 #63.csv | 10/8/2019 | 3:27:43 PM | #63 | ND | | ND | | 70 | | 14 | | | | | | ND | | | | ND | | 21 | 6 | ND | | ND | | | | 30 | 2 | 251 | 4 | PASS |
| Res_543158_10_08_19 #64.csv | 10/8/2019 | 4:29:46 PM | #64 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.7 | 1.6 | 32.1 | 2 | PASS |
| Res_543158_10_08_19 #65.csv | 10/8/2019 | 4:30:39 PM | #65 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.8 | 1.7 | 149 | 3 | PASS |
| Res_543158_10_08_19 #7.csv | 10/8/2019 | 8:38:01 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.3 | 1.7 | 33.5 | 2 | PASS |
| Res_543158_10_08_19 #8.csv | 10/8/2019 | 8:47:02 AM | #8 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.4 | 1.7 | 10.7 | 2 | PASS |
| Res_543158_10_08_19 #9.csv | 10/8/2019 | 8:49:50 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.2 | 1.6 | 11.8 | 2 | PASS |
| Res_543158_10_09_19 #1.csv | 10/9/2019 | 7:53:45 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_09_19 #10.csv | 10/9/2019 | 10:23:08 AM | #10 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 143 | 3 | PASS |
| Res_543158_10_09_19 #11.csv | 10/9/2019 | 10:23:56 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 234 | 4 | PASS |
| Res_543158_10_09_19 #12.csv | 10/9/2019 | 10:24:02 AM | #12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_09_19 #13.csv | 10/9/2019 | 10:24:39 AM | #13 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.3 | 1.8 | 384 | 5 | PASS |
| Res_543158_10_09_19 #14.csv | 10/9/2019 | 10:37:03 AM | #14 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.2 | 1.9 | 26.0 | 2 | PASS |
| Res_543158_10_09_19 #15.csv | 10/9/2019 | 10:37:42 AM | #15 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.5 | 1.7 | 27.3 | 2 | PASS |
| Res_543158_10_09_19 #16.csv | 10/9/2019 | 10:38:18 AM | #16 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 33.1 | 2 | PASS |
| Res_543158_10_09_19 #17.csv | 10/9/2019 | 10:39:06 AM | #17 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 13.9 | 2 | PASS |
| Res_543158_10_09_19 #18.csv | 10/9/2019 | 10:39:43 AM | #18 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 35 | 2 | PASS |
| Res_543158_10_09_19 #19.csv | 10/9/2019 | 10:40:24 AM | #19 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.4 | 1.6 | 132 | 3 | PASS |

| Source.Name | Date | Time | Reading | Cd | Cd +/ | Sn | Sn +/ | Sb | Sb +/ | Ba | Ba +/ | Hf | Hf +/ | Ta | Ta +/ | W | W +/ | Re | Re +/ | Hg | Hg +/ | Bi | Bi +/ | Th | Th +/ | U | U +/ | LE | LE +/ | Pb | Pb +/ | As | As +/ | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_09_19 #2.csv | 10/9/2019 | 8:36:54 AM | #2 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 417 | 5 | PASS |
| Res_543158_10_09_19 #20.csv | 10/9/2019 | 10:41:04 AM | #20 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 296 | 4 | PASS |
| Res_543158_10_09_19 #21.csv | 10/9/2019 | 10:43:51 AM | #21 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 151 | 3 | PASS |
| Res_543158_10_09_19 #22.csv | 10/9/2019 | 10:46:04 AM | #22 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.6 | 1.5 | 17.7 | 2 | PASS |
| Res_543158_10_09_19 #23.csv | 10/9/2019 | 10:46:46 AM | #23 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | 18 | 5 | ND | | ND | | | | 6.7 | 1.6 | 43.3 | 2 | PASS |
| Res_543158_10_09_19 #24.csv | 10/9/2019 | 10:46:55 AM | #24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_09_19 #25.csv | 10/9/2019 | 10:47:32 AM | #25 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | 2 | 40 | 2 | PASS |
| Res_543158_10_09_19 #26.csv | 10/9/2019 | 12:03:29 PM | #26 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 36 | 2 | 145 | 3 | PASS |
| Res_543158_10_09_19 #27.csv | 10/9/2019 | 12:36:49 PM | #27 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 108 | 3 | PASS |
| Res_543158_10_09_19 #28.csv | 10/9/2019 | 12:37:29 PM | #28 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.7 | 1.8 | 75 | 2 | PASS |
| Res_543158_10_09_19 #29.csv | 10/9/2019 | 12:38:13 PM | #29 | ND | | ND | | ND | | | | | | | | ND | | | | 8.5 | | 2 | ND | ND | | ND | | | | 6.2 | 1.4 | 15.9 | 1 | PASS |
| Res_543158_10_09_19 #3.csv | 10/9/2019 | 8:37:31 AM | #3 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.1 | 2 | 334 | 5 | PASS |
| Res_543158_10_09_19 #30.csv | 10/9/2019 | 2:42:59 PM | #30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_09_19 #31.csv | 10/9/2019 | 2:43:37 PM | #31 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 112 | 3 | PASS |
| Res_543158_10_09_19 #32.csv | 10/9/2019 | 2:44:17 PM | #32 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 5.5 | 1.4 | 77 | 2 | PASS |
| Res_543158_10_09_19 #33.csv | 10/9/2019 | 2:44:58 PM | #33 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.4 | 1.5 | 91 | 2 | PASS |
| Res_543158_10_09_19 #34.csv | 10/9/2019 | 2:45:38 PM | #34 | ND | | ND | | 42 | | 13 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 4.9 | 1.5 | 137 | 3 | PASS |
| Res_543158_10_09_19 #35.csv | 10/9/2019 | 2:46:23 PM | #35 | ND | | ND | | 54 | | 14 | | | | | | ND | | | | ND | | ND | | 24 | | 7 | ND | | | 8.5 | 1.7 | 138 | 3 | PASS |
| Res_543158_10_09_19 #36.csv | 10/9/2019 | 2:50:06 PM | #36 | 39 | | 3 | ND | 52 | | 5 | | | | | | ND | | | | ND | | ND | | 46 | | 4 | 13.6 | 1 | | 500 | 4 | ND | | PASS |
| Res_543158_10_09_19 #37.csv | 10/9/2019 | 2:51:28 PM | #37 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 18 | 2 | 136 | 3 | PASS |
| Res_543158_10_09_19 #38.csv | 10/9/2019 | 2:55:04 PM | #38 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 46 | | 8 | 7 | 2 | | 14.3 | 2 | 19.9 | 2 | PASS |
| Res_543158_10_09_19 #39.csv | 10/9/2019 | 2:55:57 PM | #39 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.5 | 1.7 | 22.3 | 2 | PASS |
| Res_543158_10_09_19 #4.csv | 10/9/2019 | 8:38:11 AM | #4 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11.9 | 1.7 | 269 | 4 | PASS |
| Res_543158_10_09_19 #40.csv | 10/9/2019 | 2:57:19 PM | #40 | ND | | ND | | 52 | | 16 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 12 | 2 | 37 | 2 | PASS |
| Res_543158_10_09_19 #41.csv | 10/9/2019 | 2:58:34 PM | #41 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 13.6 | 1.8 | 74 | 2 | PASS |
| Res_543158_10_09_19 #42.csv | 10/9/2019 | 2:59:08 PM | #42 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 26.9 | 1.9 | 82 | 2 | PASS |
| Res_543158_10_09_19 #43.csv | 10/9/2019 | 2:59:46 PM | #43 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.0 | 1.5 | 52.7 | 2 | PASS |
| Res_543158_10_09_19 #44.csv | 10/9/2019 | 3:00:31 PM | #44 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 19 | 2 | 79 | 3 | PASS |
| Res_543158_10_09_19 #45.csv | 10/9/2019 | 3:02:43 PM | #45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_09_19 #46.csv | 10/9/2019 | 3:03:19 PM | #46 | ND | | ND | | 49 | | 15 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 17 | 2 | 46 | 2 | PASS |
| Res_543158_10_09_19 #47.csv | 10/9/2019 | 3:04:18 PM | #47 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 6.5 | 2 | 45 | 2 | PASS |
| Res_543158_10_09_19 #48.csv | 10/9/2019 | 3:05:29 PM | #48 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 24 | | 8 | 8 | 2 | | 17 | 2 | 99 | 3 | PASS |
| Res_543158_10_09_19 #5.csv | 10/9/2019 | 8:38:52 AM | #5 | ND | | ND | | 53 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 25 | 2 | 258 | 4 | PASS |
| Res_543158_10_09_19 #50.csv | 10/9/2019 | 3:07:48 PM | #50 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9 | 2 | 76 | 3 | PASS |
| Res_543158_10_09_19 #51.csv | 10/9/2019 | 3:32:25 PM | #51 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 14 | 2 | 98 | 3 | PASS |
| Res_543158_10_09_19 #52.csv | 10/9/2019 | 3:33:21 PM | #52 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 11 | 2 | 81 | 3 | PASS |
| Res_543158_10_09_19 #53.csv | 10/9/2019 | 3:34:15 PM | #53 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 136 | 4 | PASS |
| Res_543158_10_09_19 #54.csv | 10/9/2019 | 3:34:56 PM | #54 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 32 | | 8 | ND | | | 17 | 2 | 62 | 3 | PASS |
| Res_543158_10_09_19 #55.csv | 10/9/2019 | 3:35:39 PM | #55 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 22 | 2 | 97 | 3 | PASS |
| Res_543158_10_09_19 #56.csv | 10/9/2019 | 4:00:38 PM | #56 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 10.0 | 1.8 | 64 | 2 | PASS |
| Res_543158_10_09_19 #57.csv | 10/9/2019 | 4:03:21 PM | #57 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 68 | 5 | PASS |
| Res_543158_10_09_19 #58.csv | 10/9/2019 | 4:03:58 PM | #58 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 59 | 2 | PASS |
| Res_543158_10_09_19 #59.csv | 10/9/2019 | 4:06:57 PM | #59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_09_19 #6.csv | 10/9/2019 | 8:39:27 AM | #6 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 8.9 | 1.8 | 50 | 2 | PASS |
| Res_543158_10_09_19 #60.csv | 10/9/2019 | 4:07:33 PM | #60 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 35.5 | 2 | PASS |
| Res_543158_10_09_19 #61.csv | 10/9/2019 | 4:31:38 PM | #61 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 41 | 2 | 62 | 2 | PASS |
| Res_543158_10_09_19 #62.csv | 10/9/2019 | 4:31:48 PM | #62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_09_19 #63.csv | 10/9/2019 | 4:31:56 PM | #63 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 26 | 7 | 167 | 11 | PASS |
| Res_543158_10_09_19 #64.csv | 10/9/2019 | 4:32:30 PM | #64 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 25 | 2 | 179 | 4 | PASS |
| Res_543158_10_09_19 #65.csv | 10/9/2019 | 4:33:08 PM | #65 | ND | | ND | | 60 | | 14 | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 70 | 3 | 84 | 3 | PASS |
| Res_543158_10_09_19 #66.csv | 10/9/2019 | 4:34:33 PM | #66 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | 38 | | 11 | ND | | | 10 | 3 | 46 | 3 | PASS |
| Res_543158_10_09_19 #67.csv | 10/9/2019 | 4:36:14 PM | #67 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.0 | 1.6 | 83 | 2 | PASS |
| Res_543158_10_09_19 #68.csv | 10/9/2019 | 4:37:18 PM | #68 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 7.1 | 1.9 | 141 | 3 | PASS |
| Res_543158_10_09_19 #7.csv | 10/9/2019 | 10:21:21 AM | #7 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 51.9 | 2 | PASS |
| Res_543158_10_09_19 #8.csv | 10/9/2019 | 10:21:59 AM | #8 | 26 | | 8 | ND | ND | | | | | | | | ND | | | | ND | | ND | | 24 | | 8 | ND | | | ND | | 174 | 3 | PASS |
| Res_543158_10_09_19 #9.csv | 10/9/2019 | 10:22:28 AM | #9 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | 9 | 2 | 47 | 3 | PASS |
| Res_543158_10_10_19 #1.csv | 10/10/2019 | 7:44:18 AM | #1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Res_543158_10_10_19 #10.csv | 10/10/2019 | 9:10:15 AM | #10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #11.csv | 10/10/2019 | 9:12:05 AM | #11 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 7.0 | 1 | PASS |
| Res_543158_10_10_19 #12.csv | 10/10/2019 | 9:12:43 AM | #12 | ND | | ND | | ND | | | | | | | | ND | | | | ND | | ND | | ND | | ND | | | | ND | | 64 | 2 | PASS |
| Res_543158_10_10_19 #2.csv | 10/10/2019 | 9:09:34 AM | #2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #3.csv | 10/10/2019 | 9:09:42 AM | #3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #4.csv | 10/10/2019 | 9:09:46 AM | #4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #5.csv | 10/10/2019 | 9:09:51 AM | #5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #6.csv | 10/10/2019 | 9:09:55 AM | #6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #7.csv | 10/10/2019 | 9:10:03 AM | #7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #8.csv | 10/10/2019 | 9:10:08 AM | #8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |
| Res_543158_10_10_19 #9.csv | 10/10/2019 | 9:10:12 AM | #9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PASS |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_04_19 #1.csv | 9/4/2019 | 7:00:46 AM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_05_19 #1.csv | 9/5/2019 | 1:38:26 PM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_05_19 #2.csv | 9/5/2019 | 1:39:26 PM | #2 | | | | | | 0 | | 0 | 9.07 | 8.68 | 27.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:38:26 PM | #1 | | | 0 | 0 | | 0 | | 0 | 13.15 | | 13.15 | 543158 | Delta Professional | Rh | % |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:39:26 PM | #2 | | | | | | 0 | | 0 | 9.07 | 8.68 | 27.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_10_19 #1.csv | 9/10/2019 | 1:12:49 PM | #1 | | | 0 | 0 | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_10_19 #2.csv | 9/10/2019 | 1:16:22 PM | #2 | | | | | | 0 | | 0 | 26.92 | | 26.92 | 543158 | Delta Professional | Rh | mg/cm2 |
| Res_543158_09_10_19 #3.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_10_19 #5.csv | 9/10/2019 | 1:17:37 PM | #5 | | | | | | 0 | | 0 | 26.99 | | 26.99 | 543158 | Delta Professional | Rh | mg/cm2 |
| Res_543158_09_10_19 #6.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_10_19 #7.csv | 9/10/2019 | 1:18:19 PM | #7 | | | | | | 0 | | 0 | 26.41 | | 26.41 | 543158 | Delta Professional | Rh | mg/cm2 |
| Res_543158_09_10_19 #8.csv | 9/10/2019 | 1:20:07 PM | #8 | | | | | | 0 | | 0 | 37.28 | 37.73 | 75.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:12:49 PM | #1 | | | 0 | 0 | | 0 | | 0 | 13.16 | | 13.16 | 543158 | Delta Professional | Rh | % |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:22 PM | #2 | | | | | | 0 | | 0 | 26.92 | | 26.92 | 543158 | Delta Professional | Rh | mg/cm2 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:37 PM | #5 | | | | | | 0 | | 0 | 26.99 | | 26.99 | 543158 | Delta Professional | Rh | mg/cm2 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:18:19 PM | #7 | | | | | | 0 | | 0 | 26.41 | | 26.41 | 543158 | Delta Professional | Rh | mg/cm2 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:20:07 PM | #8 | | | | | | 0 | | 0 | 37.28 | 37.73 | 75.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #10.csv | 9/12/2019 | 8:25:56 AM | #10 | | | | | | 0 | | 0 | 3.23 | | 3.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #101.csv | 9/12/2019 | 1:53:37 PM | #101 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #102.csv | 9/12/2019 | 1:53:40 PM | #102 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #103.csv | 9/12/2019 | 1:54:13 PM | #103 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #104.csv | 9/12/2019 | 1:54:16 PM | #104 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #105.csv | 9/12/2019 | 1:54:41 PM | #105 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #107.csv | 9/12/2019 | 1:56:15 PM | #107 | | | | | | 0 | | 0 | 8.93 | | 8.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #108.csv | 9/12/2019 | 1:56:39 PM | #108 | | | | | | 0 | | 0 | 9.35 | | 9.35 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #109.csv | 9/12/2019 | 1:56:58 PM | #109 | | | | | | 0 | | 0 | 9.22 | | 9.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #11.csv | 9/12/2019 | 8:26:49 AM | #11 | | | | | | 0 | | 0 | 2.58 | | 2.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #110.csv | 9/12/2019 | 1:57:25 PM | #110 | | | | | | 0 | | 0 | 9.55 | | 9.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #111.csv | 9/12/2019 | 1:57:47 PM | #111 | | | | | | 0 | | 0 | 9.61 | | 9.61 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #112.csv | 9/12/2019 | 1:58:27 PM | #112 | | | | | | 0 | | 0 | 8.84 | | 8.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #114.csv | 9/12/2019 | 1:58:57 PM | #114 | | | | | | 0 | | 0 | 9.49 | | 9.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #115.csv | 9/12/2019 | 2:29:25 PM | #115 | | | | | | 0 | | 0 | 9.3 | | 9.3 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #116.csv | 9/12/2019 | 2:29:55 PM | #116 | | | | | | 0 | | 0 | 9.65 | | 9.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #117.csv | 9/12/2019 | 2:30:19 PM | #117 | | | | | | 0 | | 0 | 9.32 | | 9.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #118.csv | 9/12/2019 | 2:30:48 PM | #118 | | | | | | 0 | | 0 | 9.8 | | 9.8 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #119.csv | 9/12/2019 | 3:04:32 PM | #119 | | | | | | 0 | | 0 | 9.51 | | 9.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #120.csv | 9/12/2019 | 3:05:06 PM | #120 | | | | | | 0 | | 0 | 9.98 | | 9.98 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #121.csv | 9/12/2019 | 3:05:28 PM | #121 | | | | | | 0 | | 0 | 8.93 | | 8.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #122.csv | 9/12/2019 | 3:05:52 PM | #122 | | | | | | 0 | | 0 | 10.02 | | 10.02 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #123.csv | 9/12/2019 | 3:06:11 PM | #123 | | | | | | 0 | | 0 | 9.26 | | 9.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #124.csv | 9/12/2019 | 3:06:34 PM | #124 | | | | | | 0 | | 0 | 9.12 | | 9.12 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #125.csv | 9/12/2019 | 3:06:56 PM | #125 | | | | | | 0 | | 0 | 9.03 | | 9.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #126.csv | 9/12/2019 | 3:16:06 PM | #126 | | | | | | 0 | | 0 | 9.69 | | 9.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #127.csv | 9/12/2019 | 3:16:34 PM | #127 | | | | | | 0 | | 0 | 9.84 | | 9.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #128.csv | 9/12/2019 | 3:16:58 PM | #128 | | | | | | 0 | | 0 | 9.49 | | 9.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #129.csv | 9/12/2019 | 3:20:17 PM | #129 | | | | | | 0 | | 0 | 9.24 | | 9.24 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #13.csv | 9/12/2019 | 8:28:36 AM | #13 | | | | | | 0 | | 0 | 3.74 | | 3.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #130.csv | 9/12/2019 | 3:20:50 PM | #130 | | | | | | 0 | | 0 | 8.96 | | 8.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #131.csv | 9/12/2019 | 3:56:36 PM | #131 | | | | | | 0 | | 0 | 8.78 | | 8.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #132.csv | 9/12/2019 | 3:57:07 PM | #132 | | | | | | 0 | | 0 | 8.78 | | 8.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #133.csv | 9/12/2019 | 3:57:33 PM | #133 | | | | | | 0 | | 0 | 9.23 | | 9.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #134.csv | 9/12/2019 | 3:57:54 PM | #134 | | | | | | 0 | | 0 | 9.27 | | 9.27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #135.csv | 9/12/2019 | 3:58:15 PM | #135 | | | | | | 0 | | 0 | 9.85 | | 9.85 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #136.csv | 9/12/2019 | 3:58:40 PM | #136 | | | | | | 0 | | 0 | 9.56 | | 9.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #137.csv | 9/12/2019 | 3:59:05 PM | #137 | | | | | | 0 | | 0 | 11.91 | | 11.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #138.csv | 9/12/2019 | 4:09:19 PM | #138 | | | | | | 0 | | 0 | 9.94 | | 9.94 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #139.csv | 9/12/2019 | 4:09:42 PM | #139 | | | | | | 0 | | 0 | 9.2 | | 9.2 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #140.csv | 9/12/2019 | 4:10:06 PM | #140 | | | | | | 0 | | 0 | 9.02 | | 9.02 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #141.csv | 9/12/2019 | 4:10:36 PM | #141 | | | | | | 0 | | 0 | 9.15 | | 9.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #142.csv | 9/12/2019 | 4:11:03 PM | #142 | | | | | | 0 | | 0 | 9.74 | | 9.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #2.csv | 9/12/2019 | 7:21:20 AM | #2 | | | 0 | 0 | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #20.csv | 9/12/2019 | 9:51:50 AM | #20 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #21.csv | 9/12/2019 | 9:52:06 AM | #21 | | | | | | 0 | | 0 | 9.71 | | 9.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #22.csv | 9/12/2019 | 9:52:48 AM | #22 | | | | | | 0 | | 0 | 9.66 | | 9.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #23.csv | 9/12/2019 | 9:53:21 AM | #23 | | | | | | 0 | | 0 | 10.08 | | 10.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #24.csv | 9/12/2019 | 9:53:49 AM | #24 | | | | | | 0 | | 0 | 9.45 | | 9.45 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #25.csv | 9/12/2019 | 9:53:54 AM | #25 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #27.csv | 9/12/2019 | 9:54:29 AM | #27 | | | | | | 0 | | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #28.csv | 9/12/2019 | 9:54:45 AM | #28 | | | | | | 0 | | 0 | 9.46 | | 9.46 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #29.csv | 9/12/2019 | 9:55:12 AM | #29 | | | | | | 0 | 0 | 9.35 | | 9.35 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #3.csv | 9/12/2019 | 7:22:35 AM | #3 | | | | | | 0 | 0 | 2.88 | | 2.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #30.csv | 9/12/2019 | 9:55:39 AM | #30 | | | | | | 0 | 0 | 9.51 | | 9.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #31.csv | 9/12/2019 | 9:56:01 AM | #31 | | | | | | 0 | 0 | 9.07 | | 9.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #32.csv | 9/12/2019 | 10:31:57 AM | #32 | | | | | | 0 | 0 | 9.67 | | 9.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #33.csv | 9/12/2019 | 10:32:21 AM | #33 | | | | | | 0 | 0 | 9.38 | | 9.38 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #34.csv | 9/12/2019 | 10:32:46 AM | #34 | | | | | | 0 | 0 | 9.49 | | 9.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #35.csv | 9/12/2019 | 10:33:09 AM | #35 | | | | | | 0 | 0 | 9.85 | | 9.85 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #36.csv | 9/12/2019 | 10:33:23 AM | #36 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #37.csv | 9/12/2019 | 10:33:26 AM | #37 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #38.csv | 9/12/2019 | 10:33:42 AM | #38 | | | | | | 0 | 0 | 9.78 | | 9.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #39.csv | 9/12/2019 | 10:34:08 AM | #39 | | | | | | 0 | 0 | 9.16 | | 9.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #4.csv | 9/12/2019 | 7:22:48 AM | #4 | | | | | | 0 | 0 | 2.71 | | 2.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #40.csv | 9/12/2019 | 10:34:31 AM | #40 | | | | | | 0 | 0 | 9.66 | | 9.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #41.csv | 9/12/2019 | 10:40:37 AM | #41 | | | | | | 0 | 0 | 9.13 | | 9.13 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #42.csv | 9/12/2019 | 10:41:01 AM | #42 | | | | | | 0 | 0 | 8.99 | | 8.99 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #43.csv | 9/12/2019 | 10:41:26 AM | #43 | | | | | | 0 | 0 | 9.31 | | 9.31 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #44.csv | 9/12/2019 | 10:41:50 AM | #44 | | | | | | 0 | 0 | 10.03 | | 10.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #45.csv | 9/12/2019 | 10:42:13 AM | #45 | | | | | | 0 | 0 | 9.66 | | 9.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #46.csv | 9/12/2019 | 11:35:30 AM | #46 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #47.csv | 9/12/2019 | 11:35:46 AM | #47 | | | | | | 0 | 0 | 9.12 | | 9.12 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #48.csv | 9/12/2019 | 11:36:28 AM | #48 | | | | | | 0 | 0 | 14.49 | | 14.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #49.csv | 9/12/2019 | 11:36:55 AM | #49 | | | | | | 0 | 0 | 9.21 | | 9.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #50.csv | 9/12/2019 | 11:37:17 AM | #50 | | | | | | 0 | 0 | 9.21 | | 9.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #51.csv | 9/12/2019 | 11:37:48 AM | #51 | | | | | | 0 | 0 | 9.15 | | 9.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #52.csv | 9/12/2019 | 11:38:21 AM | #52 | | | | | | 0 | 0 | 9.11 | | 9.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #53.csv | 9/12/2019 | 11:38:24 AM | #53 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #54.csv | 9/12/2019 | 11:38:55 AM | #54 | | | | | | 0 | 0 | 3.68 | | 3.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #55.csv | 9/12/2019 | 11:39:18 AM | #55 | | | | | | 0 | 0 | 9.64 | | 9.64 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #56.csv | 9/12/2019 | 11:39:49 AM | #56 | | | | | | 0 | 0 | 9.53 | | 9.53 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #57.csv | 9/12/2019 | 11:49:50 AM | #57 | | | | | | 0 | 0 | 9.14 | | 9.14 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #58.csv | 9/12/2019 | 11:50:16 AM | #58 | | | | | | 0 | 0 | 8.69 | | 8.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #59.csv | 9/12/2019 | 11:50:36 AM | #59 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #6.csv | 9/12/2019 | 8:21:58 AM | #6 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #61.csv | 9/12/2019 | 11:50:56 AM | #61 | | | | | | 0 | 0 | 9.01 | | 9.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #62.csv | 9/12/2019 | 11:51:19 AM | #62 | | | | | | 0 | 0 | 9.13 | | 9.13 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #63.csv | 9/12/2019 | 11:51:30 AM | #63 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #64.csv | 9/12/2019 | 11:51:46 AM | #64 | | | | | | 0 | 0 | 8.74 | | 8.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #65.csv | 9/12/2019 | 12:18:35 PM | #65 | | | | | | 0 | 0 | 8.91 | | 8.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #66.csv | 9/12/2019 | 12:19:10 PM | #66 | | | | | | 0 | 0 | 9.06 | | 9.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #67.csv | 9/12/2019 | 12:19:34 PM | #67 | | | | | | 0 | 0 | 9.61 | | 9.61 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #68.csv | 9/12/2019 | 12:19:56 PM | #68 | | | | | | 0 | 0 | 8.96 | | 8.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #69.csv | 9/12/2019 | 12:20:20 PM | #69 | | | | | | 0 | 0 | 9.66 | | 9.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #7.csv | 9/12/2019 | 8:22:12 AM | #7 | | | | | | 0 | 0 | 3.91 | | 3.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #70.csv | 9/12/2019 | 12:20:38 PM | #70 | | | | | | 0 | 0 | 3.81 | | 3.81 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #71.csv | 9/12/2019 | 12:20:51 PM | #71 | | | | | | 0 | 0 | 9.23 | | 9.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #72.csv | 9/12/2019 | 12:21:13 PM | #72 | | | | | | 0 | 0 | 9.09 | | 9.09 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #73.csv | 9/12/2019 | 12:27:38 PM | #73 | | | | | | 0 | 0 | 9.57 | | 9.57 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #74.csv | 9/12/2019 | 12:28:02 PM | #74 | | | | | | 0 | 0 | 9.16 | | 9.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #75.csv | 9/12/2019 | 12:28:23 PM | #75 | | | | | | 0 | 0 | 9.19 | | 9.19 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #76.csv | 9/12/2019 | 12:28:45 PM | #76 | | | | | | 0 | 0 | 9.72 | | 9.72 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #77.csv | 9/12/2019 | 12:29:04 PM | #77 | | | | | | 0 | 0 | 9.04 | | 9.04 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #78.csv | 9/12/2019 | 12:59:23 PM | #78 | | | | | | 0 | 0 | 8.86 | | 8.86 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #79.csv | 9/12/2019 | 1:00:03 PM | #79 | | | | | | 0 | 0 | 9.03 | | 9.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #8.csv | 9/12/2019 | 8:24:01 AM | #8 | | | | | | 0 | 0 | 3.1 | | 3.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #80.csv | 9/12/2019 | 1:00:32 PM | #80 | | | | | | 0 | 0 | 8.92 | | 8.92 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #82.csv | 9/12/2019 | 1:01:04 PM | #82 | | | | | | 0 | 0 | 9.28 | | 9.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #83.csv | 9/12/2019 | 1:01:24 PM | #83 | | | | | | 0 | 0 | 9.4 | | 9.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #84.csv | 9/12/2019 | 1:01:41 PM | #84 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #85.csv | 9/12/2019 | 1:01:58 PM | #85 | | | | | | 0 | 0 | 9.11 | | 9.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #86.csv | 9/12/2019 | 1:02:22 PM | #86 | | | | | | 0 | 0 | 8.68 | | 8.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #87.csv | 9/12/2019 | 1:06:51 PM | #87 | | | | | | 0 | 0 | 9.07 | | 9.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #89.csv | 9/12/2019 | 1:07:08 PM | #89 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #9.csv | 9/12/2019 | 8:25:01 AM | #9 | | | | | | 0 | 0 | 3.21 | | 3.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #90.csv | 9/12/2019 | 1:07:23 PM | #90 | | | | | | 0 | 0 | 9.91 | | 9.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #91.csv | 9/12/2019 | 1:07:51 PM | #91 | | | | | | 0 | 0 | 9.2 | | 9.2 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #92.csv | 9/12/2019 | 1:08:16 PM | #92 | | | | | | 0 | 0 | 9.12 | | 9.12 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #93.csv | 9/12/2019 | 1:08:39 PM | #93 | | | | | | 0 | 0 | 9.17 | | 9.17 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #94.csv | 9/12/2019 | 1:52:38 PM | #94 | | | | | | 0 | 0 | 9.67 | | 9.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_12_19 #95.csv | 9/12/2019 | 1:53:10 PM | #95 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #96.csv | 9/12/2019 | 1:53:14 PM | #96 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #97.csv | 9/12/2019 | 1:53:17 PM | #97 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #98.csv | 9/12/2019 | 1:53:22 PM | #98 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_12_19 #99.csv | 9/12/2019 | 1:53:26 PM | #99 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #1.csv | 9/13/2019 | 8:54:57 AM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #10.csv | 9/13/2019 | 9:37:21 AM | #10 | | | | | | 0 | | 0 | 9.68 | 9.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #11.csv | 9/13/2019 | 9:43:28 AM | #11 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #12.csv | 9/13/2019 | 9:43:46 AM | #12 | | | | | | 0 | | 0 | 9.76 | 9.76 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #13.csv | 9/13/2019 | 9:44:18 AM | #13 | | | | | | 0 | | 0 | 9.65 | 9.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #14.csv | 9/13/2019 | 9:44:41 AM | #14 | | | | | | 0 | | 0 | 9.55 | 9.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #15.csv | 9/13/2019 | 9:45:01 AM | #15 | | | | | | 0 | | 0 | 9.7 | 9.7 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #16.csv | 9/13/2019 | 9:45:21 AM | #16 | | | | | | 0 | | 0 | 9.23 | 9.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #17.csv | 9/13/2019 | 10:20:40 AM | #17 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #18.csv | 9/13/2019 | 10:20:55 AM | #18 | | | | | | 0 | | 0 | 9.66 | 9.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #19.csv | 9/13/2019 | 10:21:42 AM | #19 | | | | | | 0 | | 0 | 9.06 | 9.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #2.csv | 9/13/2019 | 9:34:12 AM | #2 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #20.csv | 9/13/2019 | 10:22:09 AM | #20 | | | | | | 0 | | 0 | 9.32 | 9.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #21.csv | 9/13/2019 | 10:22:23 AM | #21 | | | | | | 0 | | 0 | 9.21 | 9.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #22.csv | 9/13/2019 | 10:22:48 AM | #22 | | | | | | 0 | | 0 | 9.6 | 9.6 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #23.csv | 9/13/2019 | 10:23:14 AM | #23 | | | | | | 0 | | 0 | 9.91 | 9.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #24.csv | 9/13/2019 | 10:23:39 AM | #24 | | | | | | 0 | | 0 | 9.25 | 9.25 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #25.csv | 9/13/2019 | 10:24:02 AM | #25 | | | | | | 0 | | 0 | 9.72 | 9.72 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #26.csv | 9/13/2019 | 10:35:02 AM | #26 | | | | | | 0 | | 0 | 9.1 | 9.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #27.csv | 9/13/2019 | 10:35:28 AM | #27 | | | | | | 0 | | 0 | 9.75 | 9.75 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #28.csv | 9/13/2019 | 10:35:47 AM | #28 | | | | | | 0 | | 0 | 9.29 | 9.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #29.csv | 9/13/2019 | 10:36:07 AM | #29 | | | | | | 0 | | 0 | 9.28 | 9.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #3.csv | 9/13/2019 | 9:34:37 AM | #3 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #30.csv | 9/13/2019 | 10:36:26 AM | #30 | | | | | | 0 | | 0 | 9.51 | 9.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #31.csv | 9/13/2019 | 11:27:15 AM | #31 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #32.csv | 9/13/2019 | 11:27:29 AM | #32 | | | | | | 0 | | 0 | 9.08 | 9.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #33.csv | 9/13/2019 | 11:27:57 AM | #33 | | | | | | 0 | | 0 | 9.06 | 9.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #34.csv | 9/13/2019 | 11:28:17 AM | #34 | | | | | | 0 | | 0 | 9.29 | 9.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #35.csv | 9/13/2019 | 11:28:36 AM | #35 | | | | | | 0 | | 0 | 9.71 | 9.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #36.csv | 9/13/2019 | 11:28:58 AM | #36 | | | | | | 0 | | 0 | 9.22 | 9.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #37.csv | 9/13/2019 | 11:29:19 AM | #37 | | | | | | 0 | | 0 | 9.62 | 9.62 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #38.csv | 9/13/2019 | 11:29:39 AM | #38 | | | | | | 0 | | 0 | 9.15 | 9.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #39.csv | 9/13/2019 | 11:37:32 AM | #39 | | | | | | 0 | | 0 | 9.69 | 9.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #4.csv | 9/13/2019 | 9:34:57 AM | #4 | | | | | | 0 | | 0 | 8.31 | 8.31 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #40.csv | 9/13/2019 | 11:37:54 AM | #40 | | | | | | 0 | | 0 | 9.59 | 9.59 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #41.csv | 9/13/2019 | 12:20:13 PM | #41 | | | | | | 0 | | 0 | 9.54 | 9.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #42.csv | 9/13/2019 | 12:20:35 PM | #42 | | | | | | 0 | | 0 | 9.59 | 9.59 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #43.csv | 9/13/2019 | 12:20:55 PM | #43 | | | | | | 0 | | 0 | 9.05 | 9.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #44.csv | 9/13/2019 | 12:21:19 PM | #44 | | | | | | 0 | | 0 | 9.01 | 9.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #45.csv | 9/13/2019 | 12:21:52 PM | #45 | | | | | | 0 | | 0 | 9.1 | 9.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #46.csv | 9/13/2019 | 12:22:21 PM | #46 | | | | | | 0 | | 0 | 9.1 | 9.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #47.csv | 9/13/2019 | 12:22:42 PM | #47 | | | | | | 0 | | 0 | 9.54 | 9.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #48.csv | 9/13/2019 | 12:29:49 PM | #48 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_13_19 #49.csv | 9/13/2019 | 12:30:03 PM | #49 | | | | | | 0 | | 0 | 9.2 | 9.2 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #5.csv | 9/13/2019 | 9:35:28 AM | #5 | | | | | | 0 | | 0 | 9.52 | 9.52 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #50.csv | 9/13/2019 | 12:30:26 PM | #50 | | | | | | 0 | | 0 | 8.86 | 8.86 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #51.csv | 9/13/2019 | 12:30:58 PM | #51 | | | | | | 0 | | 0 | 9.16 | 9.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #52.csv | 9/13/2019 | 12:31:22 PM | #52 | | | | | | 0 | | 0 | 10.09 | 10.09 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #53.csv | 9/13/2019 | 12:31:49 PM | #53 | | | | | | 0 | | 0 | 9.09 | 9.09 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #6.csv | 9/13/2019 | 9:35:49 AM | #6 | | | | | | 0 | | 0 | 9.21 | 9.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #7.csv | 9/13/2019 | 9:36:08 AM | #7 | | | | | | 0 | | 0 | 9.48 | 9.48 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #8.csv | 9/13/2019 | 9:36:32 AM | #8 | | | | | | 0 | | 0 | 9.66 | 9.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_13_19 #9.csv | 9/13/2019 | 9:36:59 AM | #9 | | | | | | 0 | | 0 | 9.62 | 9.62 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_17_19 #1.csv | 9/17/2019 | 1:24:02 PM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_18_19 #1.csv | 9/18/2019 | 11:56:18 AM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_18_19 #2.csv | 9/18/2019 | 11:58:20 AM | #2 | | | | | | 0 | | 0 | 29.31 | 29.31 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_18_19 #3.csv | 9/18/2019 | 12:01:28 PM | #3 | | | | | | 0 | | 0 | 13.3 | 13.3 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_18_19 #4.csv | 9/18/2019 | 12:02:09 PM | #4 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_18_19 #5.csv | 9/18/2019 | 12:04:25 PM | #5 | | | | | | 0 | | 0 | 35.48 | 71.73 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #1.csv | 9/25/2019 | 8:52:36 AM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_25_19 #10.csv | 9/25/2019 | 10:09:30 AM | #10 | | | | | | 0 | | 0 | 13.84 | 13.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #11.csv | 9/25/2019 | 10:09:40 AM | #11 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_25_19 #12.csv | 9/25/2019 | 10:10:02 AM | #12 | | | | | | 0 | | 0 | 11.65 | 11.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #14.csv | 9/25/2019 | 10:10:32 AM | #14 | | | | | | 0 | | 0 | 9.41 | 9.41 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #15.csv | 9/25/2019 | 10:10:51 AM | #15 | | | | | | 0 | | 0 | 6.58 | 6.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #16.csv | 9/25/2019 | 11:18:08 AM | #16 | | | | | | 0 | | 0 | 26.54 | 26.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #17.csv | 9/25/2019 | 11:19:49 AM | #17 | | | | | | 0 | | 0 | 27.43 | 27.43 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #18.csv | 9/25/2019 | 11:20:55 AM | #18 | | | | | | 0 | | 0 | 26.16 | 26.16 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_25_19 #19.csv | 9/25/2019 | 11:22:49 AM | #19 | | | | | | 0 | 0 | 14.91 | | 14.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #2.csv | 9/25/2019 | 8:55:56 AM | #2 | | | | | | 0 | 0 | 27.06 | | 27.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #20.csv | 9/25/2019 | 1:26:30 PM | #20 | | | | | | 0 | 0 | 13.32 | | 13.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #21.csv | 9/25/2019 | 1:29:13 PM | #21 | | | | | | 0 | 0 | 9.79 | | 9.79 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #22.csv | 9/25/2019 | 1:30:59 PM | #22 | | | | | | 0 | 0 | 13.64 | | 13.64 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #23.csv | 9/25/2019 | 1:31:23 PM | #23 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_25_19 #24.csv | 9/25/2019 | 1:31:48 PM | #24 | | | | | | 0 | 0 | 15.15 | | 15.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #25.csv | 9/25/2019 | 1:32:27 PM | #25 | | | | | | 0 | 0 | 17.88 | | 17.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #26.csv | 9/25/2019 | 1:34:05 PM | #26 | | | | | | 0 | 0 | 12.81 | | 12.81 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #27.csv | 9/25/2019 | 1:41:59 PM | #27 | | | | | | 0 | 0 | 3.05 | | 3.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #28.csv | 9/25/2019 | 1:42:19 PM | #28 | | | | | | 0 | 0 | 14.42 | | 14.42 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #29.csv | 9/25/2019 | 1:43:55 PM | #29 | | | | | | 0 | 0 | 13.67 | | 13.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #3.csv | 9/25/2019 | 8:57:41 AM | #3 | | | | | | 0 | 0 | 27.25 | | 27.25 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #30.csv | 9/25/2019 | 1:44:16 PM | #30 | | | | | | 0 | 0 | 7.67 | | 7.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #31.csv | 9/25/2019 | 1:44:45 PM | #31 | | | | | | 0 | 0 | 8.28 | | 8.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #32.csv | 9/25/2019 | 1:48:46 PM | #32 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_25_19 #33.csv | 9/25/2019 | 2:29:38 PM | #33 | | | | | | 0 | 0 | 8.86 | | 8.86 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #34.csv | 9/25/2019 | 2:30:10 PM | #34 | | | | | | 0 | 0 | 7.33 | | 7.33 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #35.csv | 9/25/2019 | 2:31:27 PM | #35 | | | | | | 0 | 0 | 8.11 | | 8.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #36.csv | 9/25/2019 | 2:31:44 PM | #36 | | | | | | 0 | 0 | 5.27 | | 5.27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #37.csv | 9/25/2019 | 2:32:58 PM | #37 | | | | | | 0 | 0 | 11.55 | | 11.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #38.csv | 9/25/2019 | 2:33:29 PM | #38 | | | | | | 0 | 0 | 9.65 | | 9.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #39.csv | 9/25/2019 | 2:34:05 PM | #39 | | | | | | 0 | 0 | 6.3 | | 6.3 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #4.csv | 9/25/2019 | 8:59:48 AM | #4 | | | | | | 0 | 0 | 27.46 | | 27.46 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #40.csv | 9/25/2019 | 2:34:23 PM | #40 | | | | | | 0 | 0 | 5.89 | | 5.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #41.csv | 9/25/2019 | 2:34:39 PM | #41 | | | | | | 0 | 0 | 8.59 | | 8.59 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #42.csv | 9/25/2019 | 2:35:01 PM | #42 | | | | | | 0 | 0 | 12.27 | | 12.27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #43.csv | 9/25/2019 | 2:36:27 PM | #43 | | | | | | 0 | 0 | 13.73 | | 13.73 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #44.csv | 9/25/2019 | 2:37:13 PM | #44 | | | | | | 0 | 0 | 12.05 | | 12.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #45.csv | 9/25/2019 | 2:37:39 PM | #45 | | | | | | 0 | 0 | 9.53 | | 9.53 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #5.csv | 9/25/2019 | 9:20:11 AM | #5 | | | | | | 0 | 0 | 27.36 | | 27.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #6.csv | 9/25/2019 | 9:20:26 AM | #6 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_09_25_19 #7.csv | 9/25/2019 | 9:20:56 AM | #7 | | | | | | 0 | 0 | 16.33 | | 16.33 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #8.csv | 9/25/2019 | 9:21:28 AM | #8 | | | | | | 0 | 0 | 21.03 | | 21.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_09_25_19 #9.csv | 9/25/2019 | 9:22:13 AM | #9 | | | | | | 0 | 0 | 14.4 | | 14.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #10.csv | 10/1/2019 | 12:27:38 PM | #10 | | | | | | 0 | 0 | 26.56 | | 26.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #11.csv | 10/1/2019 | 12:28:21 PM | #11 | | | | | | 0 | 0 | 25.78 | | 25.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #12.csv | 10/1/2019 | 2:23:53 PM | #12 | | | | | | 0 | 0 | 27.86 | | 27.86 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #13.csv | 10/1/2019 | 2:24:04 PM | #13 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_01_19 #15.csv | 10/1/2019 | 2:24:43 PM | #15 | | | | | | 0 | 0 | 27.36 | | 27.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #16.csv | 10/1/2019 | 2:25:25 PM | #16 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #17.csv | 10/1/2019 | 2:26:15 PM | #17 | | | | | | 0 | 0 | 27.48 | | 27.48 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #18.csv | 10/1/2019 | 2:26:51 PM | #18 | | | | | | 0 | 0 | 26.88 | | 26.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #19.csv | 10/1/2019 | 2:27:33 PM | #19 | | | | | | 0 | 0 | 27.17 | | 27.17 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #20.csv | 10/1/2019 | 3:00:12 PM | #20 | | | | | | 0 | 0 | 29.87 | | 29.87 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #21.csv | 10/1/2019 | 3:01:24 PM | #21 | | | | | | 0 | 0 | 27.28 | | 27.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #22.csv | 10/1/2019 | 4:10:30 PM | #22 | | | | | | 0 | 0 | 27.17 | | 27.17 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #23.csv | 10/1/2019 | 4:11:16 PM | #23 | | | | | | 0 | 0 | 26.65 | | 26.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #24.csv | 10/1/2019 | 4:11:28 PM | #24 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_01_19 #25.csv | 10/1/2019 | 4:12:09 PM | #25 | | | | | | 0 | 0 | 27.33 | | 27.33 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #26.csv | 10/1/2019 | 4:12:53 PM | #26 | | | | | | 0 | 0 | 28.09 | | 28.09 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #27.csv | 10/1/2019 | 4:14:46 PM | #27 | | | | | | 0 | 0 | 27.75 | | 27.75 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #28.csv | 10/1/2019 | 4:16:36 PM | #28 | | | | | | 0 | 0 | 27.15 | | 27.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #29.csv | 10/1/2019 | 4:17:18 PM | #29 | | | | | | 0 | 0 | 27.62 | | 27.62 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #30.csv | 10/1/2019 | 4:18:24 PM | #30 | | | | | | 0 | 0 | 27.82 | | 27.82 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #4.csv | 10/1/2019 | 11:55:30 AM | #4 | 0 | 0 | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_01_19 #7.csv | 10/1/2019 | 12:24:37 PM | #7 | | | | | | 0 | 0 | 26.89 | | 26.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #8.csv | 10/1/2019 | 12:25:27 PM | #8 | | | | | | 0 | 0 | 26.96 | | 26.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_01_19 #9.csv | 10/1/2019 | 12:26:57 PM | #9 | | | | | | 0 | 0 | 27.39 | | 27.39 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #1.csv | 10/2/2019 | 7:52:35 AM | #1 | 0 | 0 | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_02_19 #10.csv | 10/2/2019 | 10:58:56 AM | #10 | | | | | | 0 | 0 | 26.96 | | 26.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #11.csv | 10/2/2019 | 10:59:37 AM | #11 | | | | | | 0 | 0 | 27.57 | | 27.57 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #12.csv | 10/2/2019 | 11:00:26 AM | #12 | | | | | | 0 | 0 | 27.79 | | 27.79 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #13.csv | 10/2/2019 | 11:03:57 AM | #13 | | | | | | 0 | 0 | 27.47 | | 27.47 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #14.csv | 10/2/2019 | 11:05:19 AM | #14 | | | | | | 0 | 0 | 27.22 | | 27.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #15.csv | 10/2/2019 | 2:18:44 PM | #15 | | | | | | 0 | 0 | 27 | | 27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #16.csv | 10/2/2019 | 2:19:37 PM | #16 | | | | | | 0 | 0 | 26.91 | | 26.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #17.csv | 10/2/2019 | 2:20:17 PM | #17 | | | | | | 0 | 0 | 26.91 | | 26.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #18.csv | 10/2/2019 | 2:20:31 PM | #18 | | | | | | 0 | 0 | 5.28 | | 5.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #19.csv | 10/2/2019 | 2:29:05 PM | #19 | | | | | | 0 | 0 | 28.19 | | 28.19 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #2.csv | 10/2/2019 | 9:28:04 AM | #2 | | | | | | 0 | 0 | 26.26 | | 26.26 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_02_19 #20.csv | 10/2/2019 | 2:30:34 PM | #20 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #21.csv | 10/2/2019 | 2:30:59 PM | #21 | | | | | | 0 | | 0 | 9.53 | 9.53 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #22.csv | 10/2/2019 | 2:34:54 PM | #22 | | | | | | 0 | | 0 | 27.75 | 27.75 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #23.csv | 10/2/2019 | 2:35:38 PM | #23 | | | | | | 0 | | 0 | 26.32 | 26.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #24.csv | 10/2/2019 | 2:36:22 PM | #24 | | | | | | 0 | | 0 | 27.61 | 27.61 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #25.csv | 10/2/2019 | 2:37:43 PM | #25 | | | | | | 0 | | 0 | 27.9 | 27.9 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #26.csv | 10/2/2019 | 2:38:30 PM | #26 | | | | | | 0 | | 0 | 27.56 | 27.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #27.csv | 10/2/2019 | 2:39:12 PM | #27 | | | | | | 0 | | 0 | 27.62 | 27.62 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #28.csv | 10/2/2019 | 2:40:07 PM | #28 | | | | | | 0 | | 0 | 27.07 | 27.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #29.csv | 10/2/2019 | 2:40:56 PM | #29 | | | | | | 0 | | 0 | 27.45 | 27.45 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #3.csv | 10/2/2019 | 9:28:49 AM | #3 | | | | | | 0 | | 0 | 26.84 | 26.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #30.csv | 10/2/2019 | 2:41:44 PM | #30 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #31.csv | 10/2/2019 | 3:49:44 PM | #31 | | | | | | 0 | | 0 | 25.91 | 25.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #32.csv | 10/2/2019 | 3:49:54 PM | #32 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_02_19 #33.csv | 10/2/2019 | 3:50:31 PM | #33 | | | | | | 0 | | 0 | 26.91 | 26.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #34.csv | 10/2/2019 | 3:51:11 PM | #34 | | | | | | 0 | | 0 | 27.28 | 27.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #35.csv | 10/2/2019 | 4:27:05 PM | #35 | | | | | | 0 | | 0 | 26.95 | 26.95 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #36.csv | 10/2/2019 | 4:27:47 PM | #36 | | | | | | 0 | | 0 | 27.14 | 27.14 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #37.csv | 10/2/2019 | 4:28:43 PM | #37 | | | | | | 0 | | 0 | 11.21 | 11.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #38.csv | 10/2/2019 | 4:28:59 PM | #38 | | | | | | 0 | | 0 | 3.97 | 3.97 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #39.csv | 10/2/2019 | 4:29:25 PM | #39 | | | | | | 0 | | 0 | 4.81 | 4.81 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #4.csv | 10/2/2019 | 9:29:34 AM | #4 | | | | | | 0 | | 0 | 27.65 | 27.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #40.csv | 10/2/2019 | 4:29:29 PM | #40 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_02_19 #41.csv | 10/2/2019 | 4:30:02 PM | #41 | | | | | | 0 | | 0 | 22.99 | 22.99 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #42.csv | 10/2/2019 | 4:31:38 PM | #42 | | | | | | 0 | | 0 | 9.57 | 9.57 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #43.csv | 10/2/2019 | 4:31:59 PM | #43 | | | | | | 0 | | 0 | 4.37 | 4.37 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #5.csv | 10/2/2019 | 9:30:09 AM | #5 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #6.csv | 10/2/2019 | 9:30:54 AM | #6 | | | | | | 0 | | 0 | 26.89 | 26.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #7.csv | 10/2/2019 | 9:31:38 AM | #7 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #8.csv | 10/2/2019 | 9:32:34 AM | #8 | | | | | | 0 | | 0 | 27.26 | 27.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_02_19 #9.csv | 10/2/2019 | 10:58:15 AM | #9 | | | | | | 0 | | 0 | 26.45 | 26.45 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #1.csv | 10/3/2019 | 7:56:23 AM | #1 | | | 0 | 0 | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #10.csv | 10/3/2019 | 8:11:44 AM | #10 | | | | | | 0 | | 0 | 27.29 | 27.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #11.csv | 10/3/2019 | 8:12:28 AM | #11 | | | | | | 0 | | 0 | 27.08 | 27.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #12.csv | 10/3/2019 | 8:14:01 AM | #12 | | | | | | 0 | | 0 | 16.65 | 16.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #13.csv | 10/3/2019 | 8:14:55 AM | #13 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #14.csv | 10/3/2019 | 8:15:50 AM | #14 | | | | | | 0 | | 0 | 27.28 | 27.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #15.csv | 10/3/2019 | 8:19:12 AM | #15 | | | | | | 0 | | 0 | 27.05 | 27.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #16.csv | 10/3/2019 | 8:22:47 AM | #16 | | | | | | 0 | | 0 | 27.31 | 27.31 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #17.csv | 10/3/2019 | 8:23:13 AM | #17 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #18.csv | 10/3/2019 | 8:23:24 AM | #18 | | | | | | 0 | | 0 | 4.61 | 4.61 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #19.csv | 10/3/2019 | 8:23:50 AM | #19 | | | | | | 0 | | 0 | 6.75 | 6.75 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #2.csv | 10/3/2019 | 8:06:15 AM | #2 | | | | | | 0 | | 0 | 28.03 | 28.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #20.csv | 10/3/2019 | 8:26:44 AM | #20 | | | | | | 0 | | 0 | 26.93 | 26.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #21.csv | 10/3/2019 | 8:40:30 AM | #21 | | | | | | 0 | | 0 | 27.63 | 27.63 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #22.csv | 10/3/2019 | 8:41:27 AM | #22 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #23.csv | 10/3/2019 | 8:41:41 AM | #23 | | | | | | 0 | | 0 | 9.23 | 9.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #24.csv | 10/3/2019 | 8:41:48 AM | #24 | | | | | | 0 | | 0 | 4.52 | 4.52 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #25.csv | 10/3/2019 | 8:41:52 AM | #25 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #26.csv | 10/3/2019 | 9:59:53 AM | #26 | | | | | | 0 | | 0 | 27.01 | 27.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #27.csv | 10/3/2019 | 10:00:34 AM | #27 | | | | | | 0 | | 0 | 27.49 | 27.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #28.csv | 10/3/2019 | 10:01:18 AM | #28 | | | | | | 0 | | 0 | 27.17 | 27.17 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #29.csv | 10/3/2019 | 11:13:08 AM | #29 | | | | | | 0 | | 0 | 27.58 | 27.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #3.csv | 10/3/2019 | 8:06:58 AM | #3 | | | | | | 0 | | 0 | 28.63 | 28.63 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #30.csv | 10/3/2019 | 11:28:11 AM | #30 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #31.csv | 10/3/2019 | 11:28:50 AM | #31 | | | | | | 0 | | 0 | 27.07 | 27.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #32.csv | 10/3/2019 | 11:29:32 AM | #32 | | | | | | 0 | | 0 | 27.41 | 27.41 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #34.csv | 10/3/2019 | 2:30:53 PM | #34 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #35.csv | 10/3/2019 | 2:31:38 PM | #35 | | | | | | 0 | | 0 | 27.1 | 27.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #36.csv | 10/3/2019 | 2:32:24 PM | #36 | | | | | | 0 | | 0 | 27.02 | 27.02 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #37.csv | 10/3/2019 | 2:33:15 PM | #37 | | | | | | 0 | | 0 | 28.19 | 28.19 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #38.csv | 10/3/2019 | 2:34:04 PM | #38 | | | | | | 0 | | 0 | 27.7 | 27.7 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #39.csv | 10/3/2019 | 2:34:35 PM | #39 | | | | | | 0 | | 0 | 4.78 | 4.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #4.csv | 10/3/2019 | 8:07:19 AM | #4 | | | | | | 0 | | 0 | 4.94 | 4.94 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #40.csv | 10/3/2019 | 2:35:52 PM | #40 | | | | | | 0 | | 0 | 26.54 | 26.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #41.csv | 10/3/2019 | 2:36:34 PM | #41 | | | | | | 0 | | 0 | 27.33 | 27.33 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #42.csv | 10/3/2019 | 2:37:18 PM | #42 | | | | | | 0 | | 0 | 26.88 | 26.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #43.csv | 10/3/2019 | 2:37:35 PM | #43 | | | | | | 0 | | 0 | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #44.csv | 10/3/2019 | 2:38:14 PM | #44 | | | | | | 0 | | 0 | 26.9 | 26.9 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #46.csv | 10/3/2019 | 2:39:01 PM | #46 | | | | | | 0 | | 0 | 26.43 | 26.43 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #47.csv | 10/3/2019 | 2:41:49 PM | #47 | | | | | | 0 | | 0 | 8.83 | 8.83 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_03_19 #48.csv | 10/3/2019 | 2:42:26 PM | #48 | | | | | | 0 | 0 | 26.53 | | 26.53 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #49.csv | 10/3/2019 | 2:55:42 PM | #49 | | | | | | 0 | 0 | 26.7 | | 26.7 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #5.csv | 10/3/2019 | 8:08:02 AM | #5 | | | | | | 0 | 0 | 27.84 | | 27.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #50.csv | 10/3/2019 | 2:55:51 PM | #50 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #51.csv | 10/3/2019 | 2:56:29 PM | #51 | | | | | | 0 | 0 | 27.6 | | 27.6 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #52.csv | 10/3/2019 | 2:56:41 PM | #52 | | | | | | 0 | 0 | 7.11 | | 7.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #53.csv | 10/3/2019 | 2:56:53 PM | #53 | | | | | | 0 | 0 | 3.72 | | 3.72 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #54.csv | 10/3/2019 | 2:57:16 PM | #54 | | | | | | 0 | 0 | 7.1 | | 7.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #55.csv | 10/3/2019 | 3:18:38 PM | #55 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #56.csv | 10/3/2019 | 3:18:43 PM | #56 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #57.csv | 10/3/2019 | 3:19:18 PM | #57 | | | | | | 0 | 0 | 27.38 | | 27.38 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #58.csv | 10/3/2019 | 3:19:55 PM | #58 | | | | | | 0 | 0 | 27.19 | | 27.19 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #59.csv | 10/3/2019 | 3:20:19 PM | #59 | | | | | | 0 | 0 | 8.47 | | 8.47 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #6.csv | 10/3/2019 | 8:08:44 AM | #6 | | | | | | 0 | 0 | 27.55 | | 27.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #60.csv | 10/3/2019 | 3:21:53 PM | #60 | | | | | | 0 | 0 | 28.37 | | 28.37 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #61.csv | 10/3/2019 | 3:22:06 PM | #61 | | | | | | 0 | 0 | 4.68 | | 4.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #62.csv | 10/3/2019 | 3:23:01 PM | #62 | | | | | | 0 | 0 | 26.38 | | 26.38 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #63.csv | 10/3/2019 | 3:37:08 PM | #63 | | | | | | 0 | 0 | 26.96 | | 26.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #65.csv | 10/3/2019 | 3:37:55 PM | #65 | | | | | | 0 | 0 | 27.36 | | 27.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #66.csv | 10/3/2019 | 3:38:40 PM | #66 | | | | | | 0 | 0 | 26.8 | | 26.8 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #67.csv | 10/3/2019 | 4:22:42 PM | #67 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #68.csv | 10/3/2019 | 4:23:23 PM | #68 | | | | | | 0 | 0 | 26.71 | | 26.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #69.csv | 10/3/2019 | 4:24:05 PM | #69 | | | | | | 0 | 0 | 27.15 | | 27.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #7.csv | 10/3/2019 | 8:09:31 AM | #7 | | | | | | 0 | 0 | 28.54 | | 28.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #70.csv | 10/3/2019 | 4:24:44 PM | #70 | | | | | | 0 | 0 | 26.57 | | 26.57 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #72.csv | 10/3/2019 | 4:26:43 PM | #72 | | | | | | 0 | 0 | 27.77 | | 27.77 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #73.csv | 10/3/2019 | 4:27:23 PM | #73 | | | | | | 0 | 0 | 25.96 | | 25.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #74.csv | 10/3/2019 | 4:28:11 PM | #74 | | | | | | 0 | 0 | 27.4 | | 27.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #75.csv | 10/3/2019 | 4:32:55 PM | #75 | | | | | | 0 | 0 | 27.36 | | 27.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #76.csv | 10/3/2019 | 4:33:02 PM | #76 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #77.csv | 10/3/2019 | 4:33:36 PM | #77 | | | | | | 0 | 0 | 26.67 | | 26.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #78.csv | 10/3/2019 | 5:09:06 PM | #78 | | | | | | 0 | 0 | 26.63 | | 26.63 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #79.csv | 10/3/2019 | 5:09:48 PM | #79 | | | | | | 0 | 0 | 27.32 | | 27.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #8.csv | 10/3/2019 | 8:10:56 AM | #8 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #80.csv | 10/3/2019 | 5:10:28 PM | #80 | | | | | | 0 | 0 | 27.87 | | 27.87 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #81.csv | 10/3/2019 | 5:11:08 PM | #81 | | | | | | 0 | 0 | 26.82 | | 26.82 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #82.csv | 10/3/2019 | 5:11:55 PM | #82 | | | | | | 0 | 0 | 27.35 | | 27.35 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #83.csv | 10/3/2019 | 5:34:13 PM | #83 | | | | | | 0 | 0 | 4.68 | | 4.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #84.csv | 10/3/2019 | 5:34:47 PM | #84 | | | | | | 0 | 0 | 27.22 | | 27.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #85.csv | 10/3/2019 | 5:35:38 PM | #85 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #86.csv | 10/3/2019 | 5:35:51 PM | #86 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #87.csv | 10/3/2019 | 5:40:44 PM | #87 | | | | | | 0 | 0 | 27.21 | | 27.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #88.csv | 10/3/2019 | 5:41:26 PM | #88 | | | | | | 0 | 0 | 26.83 | | 26.83 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #89.csv | 10/3/2019 | 5:41:47 PM | #89 | | | | | | 0 | 0 | 6.23 | | 6.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_03_19 #9.csv | 10/3/2019 | 8:11:08 AM | #9 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_03_19 #90.csv | 10/3/2019 | 5:42:45 PM | #90 | | | | | | 0 | 0 | 26.74 | | 26.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #1.csv | 10/4/2019 | 8:31:10 AM | #1 | 0 | 0 | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_04_19 #10.csv | 10/4/2019 | 9:12:34 AM | #10 | | | | | | 0 | 0 | 2.69 | | 2.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #11.csv | 10/4/2019 | 9:15:33 AM | #11 | | | | | | 0 | 0 | 35.21 | 36.18 | 71.39 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #12.csv | 10/4/2019 | 9:23:38 AM | #12 | | | | | | 0 | 0 | 4.69 | | 4.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #13.csv | 10/4/2019 | 9:24:30 AM | #13 | | | | | | 0 | 0 | 27.08 | | 27.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #14.csv | 10/4/2019 | 9:27:23 AM | #14 | | | | | | 0 | 0 | 6.58 | | 6.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #15.csv | 10/4/2019 | 9:28:14 AM | #15 | | | | | | 0 | 0 | 26.88 | | 26.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #16.csv | 10/4/2019 | 9:29:03 AM | #16 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_04_19 #17.csv | 10/4/2019 | 9:29:10 AM | #17 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_04_19 #18.csv | 10/4/2019 | 9:30:36 AM | #18 | | | | | | 0 | 0 | 35.55 | 37.01 | 72.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #19.csv | 10/4/2019 | 10:13:04 AM | #19 | | | | | | 0 | 0 | 26.75 | | 26.75 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #2.csv | 10/4/2019 | 8:40:31 AM | #2 | | | | | | 0 | 0 | 35.29 | 35.77 | 71.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #20.csv | 10/4/2019 | 10:13:22 AM | #20 | | | | | | 0 | 0 | 3.62 | | 3.62 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #21.csv | 10/4/2019 | 10:14:58 AM | #21 | | | | | | 0 | 0 | 35.41 | 35.87 | 71.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #22.csv | 10/4/2019 | 10:17:09 AM | #22 | | | | | | 0 | 0 | 35.65 | 36.38 | 72.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #24.csv | 10/4/2019 | 10:19:17 AM | #24 | | | | | | 0 | 0 | 3.79 | | 3.79 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #25.csv | 10/4/2019 | 10:20:08 AM | #25 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #26.csv | 10/4/2019 | 10:21:34 AM | #26 | | | | | | 0 | 0 | 36.88 | 37.13 | 74.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #27.csv | 10/4/2019 | 10:23:40 AM | #27 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_04_19 #28.csv | 10/4/2019 | 10:24:28 AM | #28 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #29.csv | 10/4/2019 | 10:24:32 AM | #29 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_04_19 #30.csv | 10/4/2019 | 10:25:57 AM | #30 | | | | | | 0 | 0 | 36.78 | 36.82 | 73.6 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #31.csv | 10/4/2019 | 10:45:32 AM | #31 | | | | | | 0 | 0 | 36.54 | 37.2 | 73.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #32.csv | 10/4/2019 | 10:47:40 AM | #32 | | | | | | 0 | 0 | 36.05 | 36.65 | 72.7 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #33.csv | 10/4/2019 | 10:50:22 AM | #33 | | | | | | 0 | 0 | 8.29 | | 8.29 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_04_19 #34.csv | 10/4/2019 | 10:51:03 AM | #34 | | | | | | 0 | 0 | 3.83 | | 3.83 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #35.csv | 10/4/2019 | 10:53:56 AM | #35 | | | | | | 0 | 0 | 35.55 | 36.98 | 72.52 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #36.csv | 10/4/2019 | 10:56:25 AM | #36 | | | | | | 0 | 0 | 36.47 | 37.51 | 73.98 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #37.csv | 10/4/2019 | 10:59:43 AM | #37 | | | | | | 0 | 0 | 36.3 | 37.55 | 73.85 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #39.csv | 10/4/2019 | 11:03:47 AM | #39 | | | | | | 0 | 0 | 35.81 | 37.45 | 73.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #4.csv | 10/4/2019 | 8:53:56 AM | #4 | | | | | | 0 | 0 | 35.41 | 35.4 | 70.81 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #40.csv | 10/4/2019 | 11:07:15 AM | #40 | | | | | | 0 | 0 | 36.9 | 37.15 | 74.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #41.csv | 10/4/2019 | 11:14:04 AM | #41 | | | | | | 0 | 0 | 35.63 | 36.42 | 72.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #42.csv | 10/4/2019 | 11:17:12 AM | #42 | | | | | | 0 | 0 | 36.48 | 37.78 | 74.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #43.csv | 10/4/2019 | 11:21:16 AM | #43 | | | | | | 0 | 0 | 35.22 | 36.76 | 71.98 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #44.csv | 10/4/2019 | 11:22:41 AM | #44 | | | | | | 0 | 0 | 35.31 | 36.79 | 72.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #45.csv | 10/4/2019 | 11:26:45 AM | #45 | | | | | | 0 | 0 | 35.51 | 36.55 | 72.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #46.csv | 10/4/2019 | 11:28:53 AM | #46 | | | | | | 0 | 0 | 15.89 | | 15.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #47.csv | 10/4/2019 | 11:30:18 AM | #47 | | | | | | 0 | 0 | 35.71 | 36.82 | 72.53 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #48.csv | 10/4/2019 | 11:32:53 AM | #48 | | | | | | 0 | 0 | 36.01 | 37.73 | 73.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #49.csv | 10/4/2019 | 11:35:48 AM | #49 | | | | | | 0 | 0 | 36.45 | 36.97 | 73.42 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #5.csv | 10/4/2019 | 8:56:02 AM | #5 | | | | | | 0 | 0 | 4.28 | | 4.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #50.csv | 10/4/2019 | 11:39:36 AM | #50 | | | | | | 0 | 0 | 35.68 | 36.78 | 72.46 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #51.csv | 10/4/2019 | 11:45:01 AM | #51 | | | | | | 0 | 0 | 35.46 | 36.08 | 71.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #52.csv | 10/4/2019 | 11:48:12 AM | #52 | | | | | | 0 | 0 | 37.12 | 37.43 | 74.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #53.csv | 10/4/2019 | 11:51:05 AM | #53 | | | | | | 0 | 0 | 35.68 | 36.44 | 72.13 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #6.csv | 10/4/2019 | 9:10:22 AM | #6 | | | | | | 0 | 0 | 27.07 | | 27.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #7.csv | 10/4/2019 | 9:11:38 AM | #7 | | | | | | 0 | 0 | 11.74 | | 11.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #8.csv | 10/4/2019 | 9:12:05 AM | #8 | | | | | | 0 | 0 | 5.18 | | 5.18 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_04_19 #9.csv | 10/4/2019 | 9:12:24 AM | #9 | | | | | | 0 | 0 | 7.52 | | 7.52 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #1.csv | 10/7/2019 | 7:50:11 AM | #1 | | | 0 | 0 | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #10.csv | 10/7/2019 | 8:57:55 AM | #10 | | | | | | 0 | 0 | 36.45 | 14.34 | 50.79 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #100.csv | 10/7/2019 | 4:23:32 PM | #100 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #101.csv | 10/7/2019 | 4:25:04 PM | #101 | | | | | | 0 | 0 | 36.2 | 36.4 | 72.6 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #102.csv | 10/7/2019 | 4:31:16 PM | #102 | | | | | | 0 | 0 | 36.24 | 36.06 | 72.3 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #103.csv | 10/7/2019 | 4:35:04 PM | #103 | | | | | | 0 | 0 | 35.75 | 35.63 | 71.39 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #104.csv | 10/7/2019 | 4:40:42 PM | #104 | | | | | | 0 | 0 | 36.82 | 36.69 | 73.5 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #105.csv | 10/7/2019 | 4:44:09 PM | #105 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #106.csv | 10/7/2019 | 4:44:47 PM | #106 | | | | | | 0 | 0 | 27.15 | | 27.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #107.csv | 10/7/2019 | 4:45:05 PM | #107 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #108.csv | 10/7/2019 | 4:45:41 PM | #108 | | | | | | 0 | 0 | 28.54 | | 28.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #109.csv | 10/7/2019 | 4:46:23 PM | #109 | | | | | | 0 | 0 | 26.93 | | 26.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #11.csv | 10/7/2019 | 8:59:32 AM | #11 | | | | | | 0 | 0 | 36.52 | 33.43 | 69.95 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #110.csv | 10/7/2019 | 4:47:11 PM | #110 | | | | | | 0 | 0 | 28.08 | | 28.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #111.csv | 10/7/2019 | 4:48:29 PM | #111 | | | | | | 0 | 0 | 28.64 | | 28.64 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #112.csv | 10/7/2019 | 4:49:20 PM | #112 | | | | | | 0 | 0 | 28.23 | | 28.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #113.csv | 10/7/2019 | 4:50:03 PM | #113 | | | | | | 0 | 0 | 27.32 | | 27.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #114.csv | 10/7/2019 | 4:53:38 PM | #114 | | | | | | 0 | 0 | 27.76 | | 27.76 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #115.csv | 10/7/2019 | 4:54:19 PM | #115 | | | | | | 0 | 0 | 27.73 | | 27.73 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #12.csv | 10/7/2019 | 9:03:44 AM | #12 | | | | | | 0 | 0 | 35.87 | 36.36 | 72.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #13.csv | 10/7/2019 | 9:06:33 AM | #13 | | | | | | 0 | 0 | 35.56 | 36.13 | 71.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #14.csv | 10/7/2019 | 9:10:01 AM | #14 | | | | | | 0 | 0 | 29.01 | | 29.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #15.csv | 10/7/2019 | 9:11:37 AM | #15 | | | | | | 0 | 0 | 27.7 | | 27.7 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #16.csv | 10/7/2019 | 9:15:55 AM | #16 | | | | | | 0 | 0 | 35.43 | 36.62 | 72.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #17.csv | 10/7/2019 | 9:17:32 AM | #17 | | | | | | 0 | 0 | 35.57 | 36.65 | 72.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #18.csv | 10/7/2019 | 9:20:25 AM | #18 | | | | | | 0 | 0 | 26.96 | | 26.96 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #19.csv | 10/7/2019 | 9:21:03 AM | #19 | | | | | | 0 | 0 | 9.56 | | 9.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #2.csv | 10/7/2019 | 8:46:49 AM | #2 | | | | | | 0 | 0 | 35.59 | 35.87 | 71.46 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #20.csv | 10/7/2019 | 9:22:34 AM | #20 | | | | | | 0 | 0 | 35.51 | 36.42 | 71.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #21.csv | 10/7/2019 | 9:24:03 AM | #21 | | | | | | 0 | 0 | 16.07 | | 16.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #22.csv | 10/7/2019 | 9:25:27 AM | #22 | | | | | | 0 | 0 | 35.28 | 36.07 | 71.35 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #23.csv | 10/7/2019 | 9:29:38 AM | #23 | | | | | | 0 | 0 | 36.19 | 37.92 | 74.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #24.csv | 10/7/2019 | 9:31:43 AM | #24 | | | | | | 0 | 0 | 36.03 | 24.82 | 60.85 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #25.csv | 10/7/2019 | 9:36:10 AM | #25 | | | | | | 0 | 0 | 35.48 | 35.5 | 70.98 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #26.csv | 10/7/2019 | 9:42:51 AM | #26 | | | | | | 0 | 0 | 36.17 | 36.24 | 72.42 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #27.csv | 10/7/2019 | 9:45:10 AM | #27 | | | | | | 0 | 0 | 35.73 | 37.19 | 72.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #28.csv | 10/7/2019 | 9:47:29 AM | #28 | | | | | | 0 | 0 | 31.49 | | 31.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #29.csv | 10/7/2019 | 9:47:55 AM | #29 | | | | | | 0 | 0 | 8.1 | | 8.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #30.csv | 10/7/2019 | 9:49:19 AM | #30 | | | | | | 0 | 0 | 35.59 | 36.98 | 72.57 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #31.csv | 10/7/2019 | 9:50:56 AM | #31 | | | | | | 0 | 0 | 12.27 | | 12.27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #32.csv | 10/7/2019 | 9:51:21 AM | #32 | | | | | | 0 | 0 | 19.69 | | 19.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #33.csv | 10/7/2019 | 9:52:47 AM | #33 | | | | | | 0 | 0 | 35.17 | 35.26 | 70.43 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #34.csv | 10/7/2019 | 9:59:41 AM | #34 | | | | | | 0 | 0 | 27.97 | | 27.97 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #35.csv | 10/7/2019 | 10:00:39 AM | #35 | | | | | | 0 | 0 | 28.3 | | 28.3 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #36.csv | 10/7/2019 | 10:02:26 AM | #36 | | | | | | 0 | 0 | 30.84 | | 30.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #37.csv | 10/7/2019 | 10:06:30 AM | #37 | | | | | | 0 | 0 | 35.54 | 35.93 | 71.47 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_07_19 #38.csv | 10/7/2019 | 10:10:20 AM | #38 | | | | | | 0 | 0 | 35.8 | 35.73 | 71.53 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #39.csv | 10/7/2019 | 10:13:35 AM | #39 | | | | | | 0 | 0 | 35.68 | 37.4 | 73.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #4.csv | 10/7/2019 | 8:49:44 AM | #4 | | | | | | 0 | 0 | 27.07 | | 27.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #40.csv | 10/7/2019 | 10:15:06 AM | #40 | | | | | | 0 | 0 | 35.55 | 37.26 | 72.81 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #41.csv | 10/7/2019 | 10:24:05 AM | #41 | | | | | | 0 | 0 | 35.92 | 36.05 | 71.97 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #42.csv | 10/7/2019 | 10:27:48 AM | #42 | | | | | | 0 | 0 | 36.27 | 36.43 | 72.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #43.csv | 10/7/2019 | 10:33:40 AM | #43 | | | | | | 0 | 0 | 35.4 | 36.73 | 72.13 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #44.csv | 10/7/2019 | 10:36:38 AM | #44 | | | | | | 0 | 0 | 28.39 | | 28.39 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #45.csv | 10/7/2019 | 10:38:18 AM | #45 | | | | | | 0 | 0 | 35.52 | 36.84 | 72.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #46.csv | 10/7/2019 | 10:41:10 AM | #46 | | | | | | 0 | 0 | 36.48 | 35.87 | 72.35 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #47.csv | 10/7/2019 | 10:45:08 AM | #47 | | | | | | 0 | 0 | 35.7 | 34.84 | 70.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #48.csv | 10/7/2019 | 10:50:22 AM | #48 | | | | | | 0 | 0 | 35.42 | 34.97 | 70.39 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #49.csv | 10/7/2019 | 10:56:29 AM | #49 | | | | | | 0 | 0 | 35.36 | 34.8 | 70.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #5.csv | 10/7/2019 | 8:49:58 AM | #5 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #50.csv | 10/7/2019 | 11:02:37 AM | #50 | | | | | | 0 | 0 | 35.64 | 35.5 | 71.14 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #52.csv | 10/7/2019 | 11:04:52 AM | #52 | | | | | | 0 | 0 | 35.15 | 35.08 | 70.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #53.csv | 10/7/2019 | 11:06:57 AM | #53 | | | | | | 0 | 0 | 35.75 | 35.85 | 71.6 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #54.csv | 10/7/2019 | 11:31:04 AM | #54 | | | | | | 0 | 0 | 36.25 | 36.45 | 72.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #55.csv | 10/7/2019 | 11:35:15 AM | #55 | | | | | | 0 | 0 | 36.13 | 36.25 | 72.38 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #56.csv | 10/7/2019 | 11:38:09 AM | #56 | | | | | | 0 | 0 | 36.64 | 37.44 | 74.08 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #57.csv | 10/7/2019 | 11:48:36 AM | #57 | | | | | | 0 | 0 | 27.25 | | 27.25 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #58.csv | 10/7/2019 | 11:49:37 AM | #58 | | | | | | 0 | 0 | 28.54 | | 28.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #59.csv | 10/7/2019 | 11:50:16 AM | #59 | | | | | | 0 | 0 | 26.87 | | 26.87 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #6.csv | 10/7/2019 | 8:51:31 AM | #6 | | | | | | 0 | 0 | 35.59 | 35.92 | 71.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #60.csv | 10/7/2019 | 11:51:24 AM | #60 | | | | | | 0 | 0 | 27.37 | | 27.37 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #61.csv | 10/7/2019 | 11:52:14 AM | #61 | | | | | | 0 | 0 | 27.68 | | 27.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #62.csv | 10/7/2019 | 11:53:00 AM | #62 | | | | | | 0 | 0 | 27.67 | | 27.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #63.csv | 10/7/2019 | 11:54:30 AM | #63 | | | | | | 0 | 0 | 28.4 | | 28.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #64.csv | 10/7/2019 | 11:55:20 AM | #64 | | | | | | 0 | 0 | 28.54 | | 28.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #65.csv | 10/7/2019 | 11:57:20 AM | #65 | | | | | | 0 | 0 | 28.26 | | 28.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #66.csv | 10/7/2019 | 12:03:20 PM | #66 | | | | | | 0 | 0 | 28.25 | | 28.25 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #67.csv | 10/7/2019 | 2:12:24 PM | #67 | | | | | | 0 | 0 | 28.02 | | 28.02 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #68.csv | 10/7/2019 | 2:13:09 PM | #68 | | | | | | 0 | 0 | 27.73 | | 27.73 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #69.csv | 10/7/2019 | 2:13:51 PM | #69 | | | | | | 0 | 0 | 27.91 | | 27.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #7.csv | 10/7/2019 | 8:53:49 AM | #7 | | | | | | 0 | 0 | 35.43 | 36.08 | 71.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #70.csv | 10/7/2019 | 2:14:58 PM | #70 | | | | | | 0 | 0 | 27.75 | | 27.75 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #71.csv | 10/7/2019 | 2:15:41 PM | #71 | | | | | | 0 | 0 | 27.88 | | 27.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #72.csv | 10/7/2019 | 2:16:48 PM | #72 | | | | | | 0 | 0 | 28.29 | | 28.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #73.csv | 10/7/2019 | 2:18:14 PM | #73 | | | | | | 0 | 0 | 28.03 | | 28.03 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #74.csv | 10/7/2019 | 2:18:37 PM | #74 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #75.csv | 10/7/2019 | 2:19:15 PM | #75 | | | | | | 0 | 0 | 27.21 | | 27.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #76.csv | 10/7/2019 | 2:32:16 PM | #76 | | | | | | 0 | 0 | 35.12 | 35.99 | 71.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #77.csv | 10/7/2019 | 2:34:27 PM | #77 | | | | | | 0 | 0 | 34.58 | 35.35 | 69.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #78.csv | 10/7/2019 | 2:40:41 PM | #78 | | | | | | 0 | 0 | 27.97 | | 27.97 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #79.csv | 10/7/2019 | 2:40:48 PM | #79 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #8.csv | 10/7/2019 | 8:56:15 AM | #8 | | | | | | 0 | 0 | 36.38 | 7.47 | 43.86 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #80.csv | 10/7/2019 | 2:41:27 PM | #80 | | | | | | 0 | 0 | 27.89 | | 27.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #81.csv | 10/7/2019 | 2:43:00 PM | #81 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #82.csv | 10/7/2019 | 2:43:20 PM | #82 | | | | | | 0 | 0 | 11.01 | | 11.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #83.csv | 10/7/2019 | 2:43:55 PM | #83 | | | | | | 0 | 0 | 27.61 | | 27.61 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #84.csv | 10/7/2019 | 3:14:53 PM | #84 | | | | | | 0 | 0 | 27.4 | | 27.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #85.csv | 10/7/2019 | 3:15:39 PM | #85 | | | | | | 0 | 0 | 27.87 | | 27.87 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #86.csv | 10/7/2019 | 3:16:27 PM | #86 | | | | | | 0 | 0 | 27.67 | | 27.67 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #87.csv | 10/7/2019 | 3:33:49 PM | #87 | | | | | | 0 | 0 | 26.5 | | 26.5 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #88.csv | 10/7/2019 | 3:34:31 PM | #88 | | | | | | 0 | 0 | 27.1 | | 27.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #89.csv | 10/7/2019 | 3:48:51 PM | #89 | | | | | | 0 | 0 | 29.89 | | 29.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #9.csv | 10/7/2019 | 8:56:43 AM | #9 | | | | | | 0 | 0 | 11.21 | | 11.21 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #90.csv | 10/7/2019 | 3:50:17 PM | #90 | | | | | | 0 | 0 | 34 | 30.66 | 64.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #91.csv | 10/7/2019 | 3:53:12 PM | #91 | | | | | | 0 | 0 | 36.95 | 36.63 | 73.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #92.csv | 10/7/2019 | 3:57:14 PM | #92 | | | | | | 0 | 0 | 36.27 | 35.5 | 71.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #93.csv | 10/7/2019 | 4:03:41 PM | #93 | | | | | | 0 | 0 | 35.38 | 35.13 | 70.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #94.csv | 10/7/2019 | 4:09:24 PM | #94 | | | | | | 0 | 0 | 35.76 | 35.51 | 71.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #95.csv | 10/7/2019 | 4:13:34 PM | #95 | | | | | | 0 | 0 | 35.61 | | 35.61 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #96.csv | 10/7/2019 | 4:15:11 PM | #96 | | | | | | 0 | 0 | 35.35 | 34.97 | 70.32 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #97.csv | 10/7/2019 | 4:15:56 PM | #97 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_07_19 #98.csv | 10/7/2019 | 4:17:26 PM | #98 | | | | | | 0 | 0 | 35.19 | 34.93 | 70.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_07_19 #99.csv | 10/7/2019 | 4:23:16 PM | #99 | | | | | | 0 | 0 | 35.72 | 35.71 | 71.43 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #1.csv | 10/8/2019 | 7:22:48 AM | #1 | 0 | 0 | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_08_19 #10.csv | 10/8/2019 | 9:01:20 AM | #10 | | | | | | 0 | 0 | 34.71 | 36.7 | 71.41 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #11.csv | 10/8/2019 | 9:05:55 AM | #11 | | | | | | 0 | 0 | 28.26 | | 28.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #12.csv | 10/8/2019 | 9:09:33 AM | #12 | | | | | | 0 | 0 | 28.35 | | 28.35 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_08_19 #13.csv | 10/8/2019 | 9:11:11 AM | #13 | | | | | | 0 | 0 | 36.33 | 35.44 | 71.77 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #14.csv | 10/8/2019 | 9:13:59 AM | #14 | | | | | | 0 | 0 | 36.18 | 35.44 | 71.62 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #15.csv | 10/8/2019 | 9:17:19 AM | #15 | | | | | | 0 | 0 | 36.03 | 34.97 | 70.99 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #16.csv | 10/8/2019 | 9:19:44 AM | #16 | | | | | | 0 | 0 | 35.43 | 34.63 | 70.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #17.csv | 10/8/2019 | 9:23:23 AM | #17 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_08_19 #18.csv | 10/8/2019 | 9:24:03 AM | #18 | | | | | | 0 | 0 | 28.01 | | 28.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #19.csv | 10/8/2019 | 9:36:21 AM | #19 | | | | | | 0 | 0 | 27.8 | | 27.8 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #2.csv | 10/8/2019 | 8:07:31 AM | #2 | | | | | | 0 | 0 | 28.55 | | 28.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #20.csv | 10/8/2019 | 9:38:09 AM | #20 | | | | | | 0 | 0 | 35.52 | 35.36 | 70.88 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #21.csv | 10/8/2019 | 9:41:45 AM | #21 | | | | | | 0 | 0 | 35.29 | 35.29 | 70.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #22.csv | 10/8/2019 | 9:43:10 AM | #22 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_08_19 #23.csv | 10/8/2019 | 9:44:37 AM | #23 | | | | | | 0 | 0 | 35.54 | 35.47 | 71.01 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #24.csv | 10/8/2019 | 9:48:12 AM | #24 | | | | | | 0 | 0 | 35.63 | 35.17 | 70.8 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #25.csv | 10/8/2019 | 9:53:04 AM | #25 | | | | | | 0 | 0 | 35.47 | 34.94 | 70.41 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #26.csv | 10/8/2019 | 9:56:31 AM | #26 | | | | | | 0 | 0 | 35.38 | 35.33 | 70.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #27.csv | 10/8/2019 | 9:59:10 AM | #27 | | | | | | 0 | 0 | 35.14 | 34.65 | 69.79 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #28.csv | 10/8/2019 | 10:01:35 AM | #28 | | | | | | 0 | 0 | 35.17 | 35.56 | 70.73 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #29.csv | 10/8/2019 | 10:04:27 AM | #29 | | | | | | 0 | 0 | 35.9 | 35.75 | 71.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #3.csv | 10/8/2019 | 8:21:14 AM | #3 | | | | | | 0 | 0 | 27.27 | | 27.27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #30.csv | 10/8/2019 | 10:08:04 AM | #30 | | | | | | 0 | 0 | 35.44 | 35.68 | 71.12 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #31.csv | 10/8/2019 | 12:46:14 PM | #31 | | | | | | 0 | 0 | 29.74 | | 29.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #32.csv | 10/8/2019 | 12:47:19 PM | #32 | | | | | | 0 | 0 | 28.91 | | 28.91 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #33.csv | 10/8/2019 | 12:48:15 PM | #33 | | | | | | 0 | 0 | 28.51 | | 28.51 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #34.csv | 10/8/2019 | 12:49:06 PM | #34 | | | | | | 0 | 0 | 28.52 | | 28.52 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #35.csv | 10/8/2019 | 1:05:48 PM | #35 | | | | | | 0 | 0 | 27.89 | | 27.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #36.csv | 10/8/2019 | 1:06:31 PM | #36 | | | | | | 0 | 0 | 28.84 | | 28.84 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #37.csv | 10/8/2019 | 1:07:29 PM | #37 | | | | | | 0 | 0 | 28.59 | | 28.59 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #38.csv | 10/8/2019 | 1:07:38 PM | #38 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_08_19 #39.csv | 10/8/2019 | 1:08:15 PM | #39 | | | | | | 0 | 0 | 28.16 | | 28.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #4.csv | 10/8/2019 | 8:22:53 AM | #4 | | | | | | 0 | 0 | 35.81 | 35.47 | 71.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #40.csv | 10/8/2019 | 1:08:55 PM | #40 | | | | | | 0 | 0 | 27.71 | | 27.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #41.csv | 10/8/2019 | 1:09:35 PM | #41 | | | | | | 0 | 0 | 27.71 | | 27.71 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #42.csv | 10/8/2019 | 1:10:18 PM | #42 | | | | | | 0 | 0 | 28.09 | | 28.09 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #43.csv | 10/8/2019 | 1:11:08 PM | #43 | | | | | | 0 | 0 | 28.15 | | 28.15 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #44.csv | 10/8/2019 | 1:11:58 PM | #44 | | | | | | 0 | 0 | 28.12 | | 28.12 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #45.csv | 10/8/2019 | 1:15:09 PM | #45 | | | | | | 0 | 0 | 27.93 | | 27.93 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #46.csv | 10/8/2019 | 1:15:58 PM | #46 | | | | | | 0 | 0 | 27.54 | | 27.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #47.csv | 10/8/2019 | 2:30:17 PM | #47 | | | | | | 0 | 0 | 28.14 | | 28.14 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #48.csv | 10/8/2019 | 2:31:03 PM | #48 | | | | | | 0 | 0 | 28.23 | | 28.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #49.csv | 10/8/2019 | 2:31:54 PM | #49 | | | | | | 0 | 0 | 29.22 | | 29.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #5.csv | 10/8/2019 | 8:27:37 AM | #5 | | | | | | 0 | 0 | 28.07 | | 28.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #51.csv | 10/8/2019 | 2:32:58 PM | #51 | | | | | | 0 | 0 | 28.77 | | 28.77 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #52.csv | 10/8/2019 | 3:19:09 PM | #52 | | | | | | 0 | 0 | 27.34 | | 27.34 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #53.csv | 10/8/2019 | 3:19:18 PM | #53 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_08_19 #54.csv | 10/8/2019 | 3:19:56 PM | #54 | | | | | | 0 | 0 | 27.74 | | 27.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #55.csv | 10/8/2019 | 3:20:38 PM | #55 | | | | | | 0 | 0 | 26.7 | | 26.7 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #56.csv | 10/8/2019 | 3:21:46 PM | #56 | | | | | | 0 | 0 | 30.26 | | 30.26 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #57.csv | 10/8/2019 | 3:22:25 PM | #57 | | | | | | 0 | 0 | 26.9 | | 26.9 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #58.csv | 10/8/2019 | 3:23:15 PM | #58 | | | | | | 0 | 0 | 27.77 | | 27.77 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #59.csv | 10/8/2019 | 3:23:54 PM | #59 | | | | | | 0 | 0 | 27.27 | | 27.27 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #6.csv | 10/8/2019 | 8:35:14 AM | #6 | | | | | | 0 | 0 | 36.04 | 35.61 | 71.65 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #60.csv | 10/8/2019 | 3:24:51 PM | #60 | | | | | | 0 | 0 | 27.68 | | 27.68 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #61.csv | 10/8/2019 | 3:25:38 PM | #61 | | | | | | 0 | 0 | 28.16 | | 28.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #62.csv | 10/8/2019 | 3:26:45 PM | #62 | | | | | | 0 | 0 | 27.55 | | 27.55 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #63.csv | 10/8/2019 | 3:27:43 PM | #63 | | | | | | 0 | 0 | 27.82 | | 27.82 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #64.csv | 10/8/2019 | 4:29:46 PM | #64 | | | | | | 0 | 0 | 28.17 | | 28.17 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #65.csv | 10/8/2019 | 4:30:39 PM | #65 | | | | | | 0 | 0 | 28.29 | | 28.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #7.csv | 10/8/2019 | 8:38:01 AM | #7 | | | | | | 0 | 0 | 27.83 | | 27.83 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #8.csv | 10/8/2019 | 8:47:02 AM | #8 | | | | | | 0 | 0 | 36.03 | 35.99 | 72.02 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_08_19 #9.csv | 10/8/2019 | 8:49:50 AM | #9 | | | | | | 0 | 0 | 28.35 | | 28.35 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #1.csv | 10/9/2019 | 7:53:45 AM | #1 | 0 | 0 | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #10.csv | 10/9/2019 | 10:23:08 AM | #10 | | | | | | 0 | 0 | 27.23 | | 27.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #11.csv | 10/9/2019 | 10:23:56 AM | #11 | | | | | | 0 | 0 | 27.54 | | 27.54 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #12.csv | 10/9/2019 | 10:24:02 AM | #12 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #13.csv | 10/9/2019 | 10:24:39 AM | #13 | | | | | | 0 | 0 | 27.63 | | 27.63 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #14.csv | 10/9/2019 | 10:37:03 AM | #14 | | | | | | 0 | 0 | 27.97 | | 27.97 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #15.csv | 10/9/2019 | 10:37:42 AM | #15 | | | | | | 0 | 0 | 27.66 | | 27.66 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #16.csv | 10/9/2019 | 10:38:18 AM | #16 | | | | | | 0 | 0 | 27.89 | | 27.89 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #17.csv | 10/9/2019 | 10:39:06 AM | #17 | | | | | | 0 | 0 | 27.99 | | 27.99 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #18.csv | 10/9/2019 | 10:39:43 AM | #18 | | | | | | 0 | 0 | 27.81 | | 27.81 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #19.csv | 10/9/2019 | 10:40:24 AM | #19 | | | | | | 0 | 0 | 27.6 | | 27.6 | 543158 | Delta Professional | Rh | PPM |

| Source.Name | Date | Time | Reading | Pass/Fail Grade | Pass/Fail Match number | Pass/Fail Cutoff | Best Match | Best Match Number | 2nd Match | 2nd Match Number | Live Time 1 | Live Time 2 | Live Time Total | Instrument SN | Model | Tube Anode | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_09_19 #2.csv | 10/9/2019 | 8:36:54 AM | #2 | | | | | | 0 | 0 | 27.58 | | 27.58 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #20.csv | 10/9/2019 | 10:41:04 AM | #20 | | | | | | 0 | 0 | 28.42 | | 28.42 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #21.csv | 10/9/2019 | 10:43:51 AM | #21 | | | | | | 0 | 0 | 27.33 | | 27.33 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #22.csv | 10/9/2019 | 10:46:04 AM | #22 | | | | | | 0 | 0 | 27.24 | | 27.24 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #23.csv | 10/9/2019 | 10:46:46 AM | #23 | | | | | | 0 | 0 | 27.16 | | 27.16 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #24.csv | 10/9/2019 | 10:46:55 AM | #24 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #25.csv | 10/9/2019 | 10:47:32 AM | #25 | | | | | | 0 | 0 | 27.36 | | 27.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #26.csv | 10/9/2019 | 12:03:29 PM | #26 | | | | | | 0 | 0 | 28.05 | | 28.05 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #27.csv | 10/9/2019 | 12:36:49 PM | #27 | | | | | | 0 | 0 | 28.52 | | 28.52 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #28.csv | 10/9/2019 | 12:37:29 PM | #28 | | | | | | 0 | 0 | 28.07 | | 28.07 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #29.csv | 10/9/2019 | 12:38:13 PM | #29 | | | | | | 0 | 0 | 27.06 | | 27.06 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #3.csv | 10/9/2019 | 8:37:31 AM | #3 | | | | | | 0 | 0 | 26.57 | | 26.57 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #30.csv | 10/9/2019 | 2:42:59 PM | #30 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #31.csv | 10/9/2019 | 2:43:37 PM | #31 | | | | | | 0 | 0 | 28.22 | | 28.22 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #32.csv | 10/9/2019 | 2:44:17 PM | #32 | | | | | | 0 | 0 | 27.85 | | 27.85 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #33.csv | 10/9/2019 | 2:44:58 PM | #33 | | | | | | 0 | 0 | 27.42 | | 27.42 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #34.csv | 10/9/2019 | 2:45:38 PM | #34 | | | | | | 0 | 0 | 27.56 | | 27.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #35.csv | 10/9/2019 | 2:46:23 PM | #35 | | | | | | 0 | 0 | 28.46 | | 28.46 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #36.csv | 10/9/2019 | 2:50:06 PM | #36 | | | | | | 0 | 0 | 25.82 | | 25.82 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #37.csv | 10/9/2019 | 2:51:28 PM | #37 | | | | | | 0 | 0 | 27.92 | | 27.92 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #38.csv | 10/9/2019 | 2:55:04 PM | #38 | | | | | | 0 | 0 | 28.87 | | 28.87 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #39.csv | 10/9/2019 | 2:55:57 PM | #39 | | | | | | 0 | 0 | 28.45 | | 28.45 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #4.csv | 10/9/2019 | 8:38:11 AM | #4 | | | | | | 0 | 0 | 27.25 | | 27.25 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #40.csv | 10/9/2019 | 2:57:19 PM | #40 | | | | | | 0 | 0 | 28.4 | | 28.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #41.csv | 10/9/2019 | 2:58:34 PM | #41 | | | | | | 0 | 0 | 27.78 | | 27.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #42.csv | 10/9/2019 | 2:59:08 PM | #42 | | | | | | 0 | 0 | 27.69 | | 27.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #43.csv | 10/9/2019 | 2:59:46 PM | #43 | | | | | | 0 | 0 | 27.29 | | 27.29 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #44.csv | 10/9/2019 | 3:00:31 PM | #44 | | | | | | 0 | 0 | 28.49 | | 28.49 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #45.csv | 10/9/2019 | 3:02:43 PM | #45 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #46.csv | 10/9/2019 | 3:03:19 PM | #46 | | | | | | 0 | 0 | 28.4 | | 28.4 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #47.csv | 10/9/2019 | 3:04:18 PM | #47 | | | | | | 0 | 0 | 28.3 | | 28.3 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #48.csv | 10/9/2019 | 3:05:29 PM | #48 | | | | | | 0 | 0 | 28.36 | | 28.36 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #5.csv | 10/9/2019 | 8:38:52 AM | #5 | | | | | | 0 | 0 | 27.1 | | 27.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #50.csv | 10/9/2019 | 3:07:48 PM | #50 | | | | | | 0 | 0 | 29.23 | | 29.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #51.csv | 10/9/2019 | 3:32:25 PM | #51 | | | | | | 0 | 0 | 27.41 | | 27.41 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #52.csv | 10/9/2019 | 3:33:21 PM | #52 | | | | | | 0 | 0 | 27.39 | | 27.39 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #53.csv | 10/9/2019 | 3:34:15 PM | #53 | | | | | | 0 | 0 | 28.28 | | 28.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #54.csv | 10/9/2019 | 3:34:56 PM | #54 | | | | | | 0 | 0 | 28.24 | | 28.24 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #55.csv | 10/9/2019 | 3:35:39 PM | #55 | | | | | | 0 | 0 | 27.44 | | 27.44 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #56.csv | 10/9/2019 | 4:00:38 PM | #56 | | | | | | 0 | 0 | 27.2 | | 27.2 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #57.csv | 10/9/2019 | 4:03:21 PM | #57 | | | | | | 0 | 0 | 5.63 | | 5.63 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #58.csv | 10/9/2019 | 4:03:58 PM | #58 | | | | | | 0 | 0 | 27.1 | | 27.1 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #59.csv | 10/9/2019 | 4:06:57 PM | #59 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #6.csv | 10/9/2019 | 8:39:27 AM | #6 | | | | | | 0 | 0 | 27.28 | | 27.28 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #60.csv | 10/9/2019 | 4:07:33 PM | #60 | | | | | | 0 | 0 | 28.44 | | 28.44 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #61.csv | 10/9/2019 | 4:31:38 PM | #61 | | | | | | 0 | 0 | 27.45 | | 27.45 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #62.csv | 10/9/2019 | 4:31:48 PM | #62 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_09_19 #63.csv | 10/9/2019 | 4:31:56 PM | #63 | | | | | | 0 | 0 | 2.74 | | 2.74 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #64.csv | 10/9/2019 | 4:32:30 PM | #64 | | | | | | 0 | 0 | 27.78 | | 27.78 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #65.csv | 10/9/2019 | 4:33:08 PM | #65 | | | | | | 0 | 0 | 27.56 | | 27.56 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #66.csv | 10/9/2019 | 4:34:33 PM | #66 | | | | | | 0 | 0 | 28.99 | | 28.99 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #67.csv | 10/9/2019 | 4:36:14 PM | #67 | | | | | | 0 | 0 | 28.17 | | 28.17 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #68.csv | 10/9/2019 | 4:37:18 PM | #68 | | | | | | 0 | 0 | 27.92 | | 27.92 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #7.csv | 10/9/2019 | 10:21:21 AM | #7 | | | | | | 0 | 0 | 27.11 | | 27.11 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #8.csv | 10/9/2019 | 10:21:59 AM | #8 | | | | | | 0 | 0 | 27.23 | | 27.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_09_19 #9.csv | 10/9/2019 | 10:22:28 AM | #9 | | | | | | 0 | 0 | 19.69 | | 19.69 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_10_19 #1.csv | 10/10/2019 | 7:44:18 AM | #1 | 0 | 0 | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #10.csv | 10/10/2019 | 9:10:15 AM | #10 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #11.csv | 10/10/2019 | 9:12:05 AM | #11 | | | | | | 0 | 0 | 27.23 | | 27.23 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_10_19 #12.csv | 10/10/2019 | 9:12:43 AM | #12 | | | | | | 0 | 0 | 27.18 | | 27.18 | 543158 | Delta Professional | Rh | PPM |
| Res_543158_10_10_19 #2.csv | 10/10/2019 | 9:09:34 AM | #2 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #3.csv | 10/10/2019 | 9:09:42 AM | #3 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #4.csv | 10/10/2019 | 9:09:46 AM | #4 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #5.csv | 10/10/2019 | 9:09:51 AM | #5 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #6.csv | 10/10/2019 | 9:09:55 AM | #6 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #7.csv | 10/10/2019 | 9:10:03 AM | #7 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #8.csv | 10/10/2019 | 9:10:08 AM | #8 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |
| Res_543158_10_10_19 #9.csv | 10/10/2019 | 9:10:12 AM | #9 | | | | | | 0 | 0 | | | | 543158 | Delta Professional | Rh | % |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_04_19 #1.csv | 9/4/2019 | 7:00:46 AM | #1 | | | | | | | | 3 | | | | 32846 | 142 | 320 |
| Res_543158_09_05_19 #1.csv | 9/5/2019 | 1:38:26 PM | #1 | | | | | | | | 3 | | | | 32864 | 142 | 320 |
| Res_543158_09_05_19 #2.csv | 9/5/2019 | 1:39:26 PM | #2 | | | | | Soil-Ba | Factory-Default | | 3 | | | | | | |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:38:26 PM | #1 | | | | | | | | 3 | | | | 32864 | 142 | 320 |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:39:26 PM | #2 | | | | | Soil-Ba | Factory-Default | | 3 | | | | | | |
| Res_543158_09_10_19 #1.csv | 9/10/2019 | 1:12:49 PM | #1 | | | | | | | | 3 | | | | 32755 | 142 | 320 |
| Res_543158_09_10_19 #2.csv | 9/10/2019 | 1:16:22 PM | #2 | | Negative | | 0.01 | 0 Lead Paint | | | 3 | | | | | | |
| Res_543158_09_10_19 #3.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | | | 3 | | | | | | |
| Res_543158_09_10_19 #5.csv | 9/10/2019 | 1:17:37 PM | #5 | | Negative | | 0.02 | 0 Lead Paint | | | 3 | | | | | | |
| Res_543158_09_10_19 #6.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | | | 3 | | | | | | |
| Res_543158_09_10_19 #7.csv | 9/10/2019 | 1:18:19 PM | #7 | | Positive | | 1.08 | 0.01 Lead Paint | | | 3 | | | | | | |
| Res_543158_09_10_19 #8.csv | 9/10/2019 | 1:20:07 PM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:12:49 PM | #1 | | | | | | | | 3 | | | | 32755 | 142 | 320 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:22 PM | #2 | | Negative | | 0.01 | 0 Lead Paint | | | 3 | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:47 PM | #3 | | | | | | | | 3 | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:37 PM | #5 | | Negative | | 0.02 | 0 Lead Paint | | | 3 | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:45 PM | #6 | | | | | | | | 3 | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:18:19 PM | #7 | | Positive | | 1.08 | 0.01 Lead Paint | | | 3 | | | | | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:20:07 PM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #10.csv | 9/12/2019 | 8:25:56 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #101.csv | 9/12/2019 | 1:53:37 PM | #101 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #102.csv | 9/12/2019 | 1:53:40 PM | #102 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #103.csv | 9/12/2019 | 1:54:13 PM | #103 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #104.csv | 9/12/2019 | 1:54:16 PM | #104 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #105.csv | 9/12/2019 | 1:54:41 PM | #105 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #107.csv | 9/12/2019 | 1:56:15 PM | #107 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #108.csv | 9/12/2019 | 1:56:39 PM | #108 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #109.csv | 9/12/2019 | 1:56:58 PM | #109 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #11.csv | 9/12/2019 | 8:26:49 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #110.csv | 9/12/2019 | 1:57:25 PM | #110 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #111.csv | 9/12/2019 | 1:57:47 PM | #111 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #112.csv | 9/12/2019 | 1:58:27 PM | #112 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #114.csv | 9/12/2019 | 1:58:57 PM | #114 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #115.csv | 9/12/2019 | 2:29:25 PM | #115 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #116.csv | 9/12/2019 | 2:29:55 PM | #116 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #117.csv | 9/12/2019 | 2:30:19 PM | #117 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #118.csv | 9/12/2019 | 2:30:48 PM | #118 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #119.csv | 9/12/2019 | 3:04:32 PM | #119 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #120.csv | 9/12/2019 | 3:05:06 PM | #120 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #121.csv | 9/12/2019 | 3:05:28 PM | #121 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #122.csv | 9/12/2019 | 3:05:52 PM | #122 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #123.csv | 9/12/2019 | 3:06:11 PM | #123 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #124.csv | 9/12/2019 | 3:06:34 PM | #124 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #125.csv | 9/12/2019 | 3:06:56 PM | #125 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #126.csv | 9/12/2019 | 3:16:06 PM | #126 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #127.csv | 9/12/2019 | 3:16:34 PM | #127 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #128.csv | 9/12/2019 | 3:16:58 PM | #128 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #129.csv | 9/12/2019 | 3:20:17 PM | #129 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #13.csv | 9/12/2019 | 8:28:36 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #130.csv | 9/12/2019 | 3:20:50 PM | #130 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #131.csv | 9/12/2019 | 3:56:36 PM | #131 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #132.csv | 9/12/2019 | 3:57:07 PM | #132 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #133.csv | 9/12/2019 | 3:57:33 PM | #133 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #134.csv | 9/12/2019 | 3:57:54 PM | #134 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #135.csv | 9/12/2019 | 3:58:15 PM | #135 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #136.csv | 9/12/2019 | 3:58:40 PM | #136 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #137.csv | 9/12/2019 | 3:59:05 PM | #137 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #138.csv | 9/12/2019 | 4:09:19 PM | #138 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #139.csv | 9/12/2019 | 4:09:42 PM | #139 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #140.csv | 9/12/2019 | 4:10:06 PM | #140 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #141.csv | 9/12/2019 | 4:10:36 PM | #141 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #142.csv | 9/12/2019 | 4:11:03 PM | #142 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #2.csv | 9/12/2019 | 7:21:20 AM | #2 | | | | | | | | 3 | | | | 35422 | 142 | 320 |
| Res_543158_09_12_19 #20.csv | 9/12/2019 | 9:51:50 AM | #20 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #21.csv | 9/12/2019 | 9:52:06 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #22.csv | 9/12/2019 | 9:52:48 AM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #23.csv | 9/12/2019 | 9:53:21 AM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #24.csv | 9/12/2019 | 9:53:49 AM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #25.csv | 9/12/2019 | 9:53:54 AM | #25 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #27.csv | 9/12/2019 | 9:54:29 AM | #27 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #28.csv | 9/12/2019 | 9:54:45 AM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #29.csv | 9/12/2019 | 9:55:12 AM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #3.csv | 9/12/2019 | 7:22:35 AM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #30.csv | 9/12/2019 | 9:55:39 AM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #31.csv | 9/12/2019 | 9:56:01 AM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #32.csv | 9/12/2019 | 10:31:57 AM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #33.csv | 9/12/2019 | 10:32:21 AM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #34.csv | 9/12/2019 | 10:32:46 AM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #35.csv | 9/12/2019 | 10:33:09 AM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #36.csv | 9/12/2019 | 10:33:23 AM | #36 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #37.csv | 9/12/2019 | 10:33:26 AM | #37 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #38.csv | 9/12/2019 | 10:33:42 AM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #39.csv | 9/12/2019 | 10:34:08 AM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #4.csv | 9/12/2019 | 7:22:48 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #40.csv | 9/12/2019 | 10:34:31 AM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #41.csv | 9/12/2019 | 10:40:37 AM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #42.csv | 9/12/2019 | 10:41:01 AM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #43.csv | 9/12/2019 | 10:41:26 AM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #44.csv | 9/12/2019 | 10:41:50 AM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #45.csv | 9/12/2019 | 10:42:13 AM | #45 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #46.csv | 9/12/2019 | 11:35:30 AM | #46 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #47.csv | 9/12/2019 | 11:35:46 AM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #48.csv | 9/12/2019 | 11:36:28 AM | #48 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #49.csv | 9/12/2019 | 11:36:55 AM | #49 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #50.csv | 9/12/2019 | 11:37:17 AM | #50 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #51.csv | 9/12/2019 | 11:37:48 AM | #51 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #52.csv | 9/12/2019 | 11:38:21 AM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #53.csv | 9/12/2019 | 11:38:24 AM | #53 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #54.csv | 9/12/2019 | 11:38:55 AM | #54 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #55.csv | 9/12/2019 | 11:39:18 AM | #55 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #56.csv | 9/12/2019 | 11:39:49 AM | #56 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #57.csv | 9/12/2019 | 11:49:50 AM | #57 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #58.csv | 9/12/2019 | 11:50:16 AM | #58 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #59.csv | 9/12/2019 | 11:50:36 AM | #59 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #6.csv | 9/12/2019 | 8:21:58 AM | #6 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #61.csv | 9/12/2019 | 11:50:56 AM | #61 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #62.csv | 9/12/2019 | 11:51:19 AM | #62 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #63.csv | 9/12/2019 | 11:51:30 AM | #63 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #64.csv | 9/12/2019 | 11:51:46 AM | #64 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #65.csv | 9/12/2019 | 12:18:35 PM | #65 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #66.csv | 9/12/2019 | 12:19:10 PM | #66 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #67.csv | 9/12/2019 | 12:19:34 PM | #67 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #68.csv | 9/12/2019 | 12:19:56 PM | #68 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #69.csv | 9/12/2019 | 12:20:20 PM | #69 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #7.csv | 9/12/2019 | 8:22:12 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #70.csv | 9/12/2019 | 12:20:38 PM | #70 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #71.csv | 9/12/2019 | 12:20:51 PM | #71 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #72.csv | 9/12/2019 | 12:21:13 PM | #72 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #73.csv | 9/12/2019 | 12:27:38 PM | #73 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #74.csv | 9/12/2019 | 12:28:02 PM | #74 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #75.csv | 9/12/2019 | 12:28:23 PM | #75 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #76.csv | 9/12/2019 | 12:28:45 PM | #76 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #77.csv | 9/12/2019 | 12:29:04 PM | #77 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #78.csv | 9/12/2019 | 12:59:23 PM | #78 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #79.csv | 9/12/2019 | 1:00:03 PM | #79 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #8.csv | 9/12/2019 | 8:24:01 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #80.csv | 9/12/2019 | 1:00:32 PM | #80 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #82.csv | 9/12/2019 | 1:01:04 PM | #82 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #83.csv | 9/12/2019 | 1:01:24 PM | #83 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #84.csv | 9/12/2019 | 1:01:41 PM | #84 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #85.csv | 9/12/2019 | 1:01:58 PM | #85 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #86.csv | 9/12/2019 | 1:02:22 PM | #86 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #87.csv | 9/12/2019 | 1:06:51 PM | #87 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #89.csv | 9/12/2019 | 1:07:08 PM | #89 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #9.csv | 9/12/2019 | 8:25:01 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #90.csv | 9/12/2019 | 1:07:23 PM | #90 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #91.csv | 9/12/2019 | 1:07:51 PM | #91 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #92.csv | 9/12/2019 | 1:08:16 PM | #92 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #93.csv | 9/12/2019 | 1:08:39 PM | #93 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #94.csv | 9/12/2019 | 1:52:38 PM | #94 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_12_19 #95.csv | 9/12/2019 | 1:53:10 PM | #95 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #96.csv | 9/12/2019 | 1:53:14 PM | #96 | | | | | | | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #97.csv | 9/12/2019 | 1:53:17 PM | #97 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #98.csv | 9/12/2019 | 1:53:22 PM | #98 | | | | | | | | 3 | | | | | | |
| Res_543158_09_12_19 #99.csv | 9/12/2019 | 1:53:26 PM | #99 | | | | | | | | 3 | | | | | | |
| Res_543158_09_13_19 #1.csv | 9/13/2019 | 8:54:57 AM | #1 | | | | | | | | 3 | | | | 35441 | 141 | 320 |
| Res_543158_09_13_19 #10.csv | 9/13/2019 | 9:37:21 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #11.csv | 9/13/2019 | 9:43:28 AM | #11 | | | | | | | | 3 | | | | | | |
| Res_543158_09_13_19 #12.csv | 9/13/2019 | 9:43:46 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #13.csv | 9/13/2019 | 9:44:18 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #14.csv | 9/13/2019 | 9:44:41 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #15.csv | 9/13/2019 | 9:45:01 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #16.csv | 9/13/2019 | 9:45:21 AM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #17.csv | 9/13/2019 | 10:20:40 AM | #17 | | | | | | | | 3 | | | | | | |
| Res_543158_09_13_19 #18.csv | 9/13/2019 | 10:20:55 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #19.csv | 9/13/2019 | 10:21:42 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #2.csv | 9/13/2019 | 9:34:12 AM | #2 | | | | | | | | 3 | | | | 35803 | 142 | 320 |
| Res_543158_09_13_19 #20.csv | 9/13/2019 | 10:22:09 AM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #21.csv | 9/13/2019 | 10:22:23 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #22.csv | 9/13/2019 | 10:22:48 AM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #23.csv | 9/13/2019 | 10:23:14 AM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #24.csv | 9/13/2019 | 10:23:39 AM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #25.csv | 9/13/2019 | 10:24:02 AM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #26.csv | 9/13/2019 | 10:35:02 AM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #27.csv | 9/13/2019 | 10:35:28 AM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #28.csv | 9/13/2019 | 10:35:47 AM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #29.csv | 9/13/2019 | 10:36:07 AM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #3.csv | 9/13/2019 | 9:34:37 AM | #3 | | | | | | | | 3 | | | | 35841 | 142 | 320 |
| Res_543158_09_13_19 #30.csv | 9/13/2019 | 10:36:26 AM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #31.csv | 9/13/2019 | 11:27:15 AM | #31 | | | | | | | | 3 | | | | | | |
| Res_543158_09_13_19 #32.csv | 9/13/2019 | 11:27:29 AM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #33.csv | 9/13/2019 | 11:27:57 AM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #34.csv | 9/13/2019 | 11:28:17 AM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #35.csv | 9/13/2019 | 11:28:36 AM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #36.csv | 9/13/2019 | 11:28:58 AM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #37.csv | 9/13/2019 | 11:29:19 AM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #38.csv | 9/13/2019 | 11:29:39 AM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #39.csv | 9/13/2019 | 11:37:32 AM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #4.csv | 9/13/2019 | 9:34:57 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #40.csv | 9/13/2019 | 11:37:54 AM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #41.csv | 9/13/2019 | 12:20:13 PM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #42.csv | 9/13/2019 | 12:20:35 PM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #43.csv | 9/13/2019 | 12:20:55 PM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #44.csv | 9/13/2019 | 12:21:19 PM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #45.csv | 9/13/2019 | 12:21:52 PM | #45 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #46.csv | 9/13/2019 | 12:22:21 PM | #46 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #47.csv | 9/13/2019 | 12:22:42 PM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #48.csv | 9/13/2019 | 12:29:49 PM | #48 | | | | | | | | 3 | | | | | | |
| Res_543158_09_13_19 #49.csv | 9/13/2019 | 12:30:03 PM | #49 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #5.csv | 9/13/2019 | 9:35:28 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #50.csv | 9/13/2019 | 12:30:26 PM | #50 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #51.csv | 9/13/2019 | 12:30:58 PM | #51 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #52.csv | 9/13/2019 | 12:31:22 PM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #53.csv | 9/13/2019 | 12:31:49 PM | #53 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #6.csv | 9/13/2019 | 9:35:49 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #7.csv | 9/13/2019 | 9:36:08 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #8.csv | 9/13/2019 | 9:36:32 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_13_19 #9.csv | 9/13/2019 | 9:36:59 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_17_19 #1.csv | 9/17/2019 | 1:24:02 PM | #1 | | | | | | | | 3 | | | | 35113 | 141 | 320 |
| Res_543158_09_18_19 #1.csv | 9/18/2019 | 11:56:18 AM | #1 | | | | | | | | 3 | | | | 35087 | 142 | 320 |
| Res_543158_09_18_19 #2.csv | 9/18/2019 | 11:58:20 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_18_19 #3.csv | 9/18/2019 | 12:01:28 PM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_18_19 #4.csv | 9/18/2019 | 12:02:09 PM | #4 | | | | | | | | 3 | | | | 34010 | 142 | 320 |
| Res_543158_09_18_19 #5.csv | 9/18/2019 | 12:04:25 PM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #1.csv | 9/25/2019 | 8:52:36 AM | #1 | | | | | | | | 3 | | | | 35353 | 142 | 320 |
| Res_543158_09_25_19 #10.csv | 9/25/2019 | 10:09:30 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #11.csv | 9/25/2019 | 10:09:40 AM | #11 | | | | | | | | 3 | | | | | | |
| Res_543158_09_25_19 #12.csv | 9/25/2019 | 10:10:02 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #14.csv | 9/25/2019 | 10:10:32 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #15.csv | 9/25/2019 | 10:10:51 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #16.csv | 9/25/2019 | 11:18:08 AM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #17.csv | 9/25/2019 | 11:19:49 AM | #17 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #18.csv | 9/25/2019 | 11:20:55 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_09_25_19 #19.csv | 9/25/2019 | 11:22:49 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #2.csv | 9/25/2019 | 8:55:56 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #20.csv | 9/25/2019 | 1:26:30 PM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #21.csv | 9/25/2019 | 1:29:13 PM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #22.csv | 9/25/2019 | 1:30:59 PM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #23.csv | 9/25/2019 | 1:31:23 PM | #23 | | | | | | | | 3 | | | | | | |
| Res_543158_09_25_19 #24.csv | 9/25/2019 | 1:31:48 PM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #25.csv | 9/25/2019 | 1:32:27 PM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #26.csv | 9/25/2019 | 1:34:05 PM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #27.csv | 9/25/2019 | 1:41:59 PM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #28.csv | 9/25/2019 | 1:42:19 PM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #29.csv | 9/25/2019 | 1:43:55 PM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #3.csv | 9/25/2019 | 8:57:41 AM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #30.csv | 9/25/2019 | 1:44:16 PM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #31.csv | 9/25/2019 | 1:44:45 PM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #32.csv | 9/25/2019 | 1:48:46 PM | #32 | | | | | | | | 3 | | | | | | |
| Res_543158_09_25_19 #33.csv | 9/25/2019 | 2:29:38 PM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #34.csv | 9/25/2019 | 2:30:10 PM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #35.csv | 9/25/2019 | 2:31:27 PM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #36.csv | 9/25/2019 | 2:31:44 PM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #37.csv | 9/25/2019 | 2:32:58 PM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #38.csv | 9/25/2019 | 2:33:29 PM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #39.csv | 9/25/2019 | 2:34:05 PM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #4.csv | 9/25/2019 | 8:59:48 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #40.csv | 9/25/2019 | 2:34:23 PM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #41.csv | 9/25/2019 | 2:34:39 PM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #42.csv | 9/25/2019 | 2:35:01 PM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #43.csv | 9/25/2019 | 2:36:27 PM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #44.csv | 9/25/2019 | 2:37:13 PM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #45.csv | 9/25/2019 | 2:37:39 PM | #45 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #5.csv | 9/25/2019 | 9:20:11 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #6.csv | 9/25/2019 | 9:20:26 AM | #6 | | | | | | | | 3 | | | | | | |
| Res_543158_09_25_19 #7.csv | 9/25/2019 | 9:20:56 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #8.csv | 9/25/2019 | 9:21:28 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_09_25_19 #9.csv | 9/25/2019 | 9:22:13 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #10.csv | 10/1/2019 | 12:27:38 PM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #11.csv | 10/1/2019 | 12:28:21 PM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #12.csv | 10/1/2019 | 2:23:53 PM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #13.csv | 10/1/2019 | 2:24:04 PM | #13 | | | | | | | | 3 | | | | | | |
| Res_543158_10_01_19 #15.csv | 10/1/2019 | 2:24:43 PM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #16.csv | 10/1/2019 | 2:25:25 PM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #17.csv | 10/1/2019 | 2:26:15 PM | #17 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #18.csv | 10/1/2019 | 2:26:51 PM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #19.csv | 10/1/2019 | 2:27:33 PM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #20.csv | 10/1/2019 | 3:00:12 PM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #21.csv | 10/1/2019 | 3:01:24 PM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #22.csv | 10/1/2019 | 4:10:30 PM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #23.csv | 10/1/2019 | 4:11:16 PM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #24.csv | 10/1/2019 | 4:11:28 PM | #24 | | | | | | | | 3 | | | | | | |
| Res_543158_10_01_19 #25.csv | 10/1/2019 | 4:12:09 PM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #26.csv | 10/1/2019 | 4:12:53 PM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #27.csv | 10/1/2019 | 4:14:46 PM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #28.csv | 10/1/2019 | 4:16:36 PM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #29.csv | 10/1/2019 | 4:17:18 PM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #30.csv | 10/1/2019 | 4:18:24 PM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #4.csv | 10/1/2019 | 11:55:30 AM | #4 | | | | | | | | 3 | | | | 36591 | 142 | 320 |
| Res_543158_10_01_19 #7.csv | 10/1/2019 | 12:24:37 PM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #8.csv | 10/1/2019 | 12:25:27 PM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_01_19 #9.csv | 10/1/2019 | 12:26:57 PM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #1.csv | 10/2/2019 | 7:52:35 AM | #1 | | | | | | | | 3 | | | | 33263 | 142 | 320 |
| Res_543158_10_02_19 #10.csv | 10/2/2019 | 10:58:56 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #11.csv | 10/2/2019 | 10:59:37 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #12.csv | 10/2/2019 | 11:00:26 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #13.csv | 10/2/2019 | 11:03:57 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #14.csv | 10/2/2019 | 11:05:19 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #15.csv | 10/2/2019 | 2:18:44 PM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #16.csv | 10/2/2019 | 2:19:37 PM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #17.csv | 10/2/2019 | 2:20:17 PM | #17 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #18.csv | 10/2/2019 | 2:20:31 PM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #19.csv | 10/2/2019 | 2:29:05 PM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #2.csv | 10/2/2019 | 9:28:04 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_02_19 #20.csv | 10/2/2019 | 2:30:34 PM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #21.csv | 10/2/2019 | 2:30:59 PM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #22.csv | 10/2/2019 | 2:34:54 PM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #23.csv | 10/2/2019 | 2:35:38 PM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #24.csv | 10/2/2019 | 2:36:22 PM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #25.csv | 10/2/2019 | 2:37:43 PM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #26.csv | 10/2/2019 | 2:38:30 PM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #27.csv | 10/2/2019 | 2:39:12 PM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #28.csv | 10/2/2019 | 2:40:07 PM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #29.csv | 10/2/2019 | 2:40:56 PM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #3.csv | 10/2/2019 | 9:28:49 AM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #30.csv | 10/2/2019 | 2:41:44 PM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #31.csv | 10/2/2019 | 3:49:44 PM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #32.csv | 10/2/2019 | 3:49:54 PM | #32 | | | | | | | | 3 | | | | | | |
| Res_543158_10_02_19 #33.csv | 10/2/2019 | 3:50:31 PM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #34.csv | 10/2/2019 | 3:51:11 PM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #35.csv | 10/2/2019 | 4:27:05 PM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #36.csv | 10/2/2019 | 4:27:47 PM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #37.csv | 10/2/2019 | 4:28:43 PM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #38.csv | 10/2/2019 | 4:28:59 PM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #39.csv | 10/2/2019 | 4:29:25 PM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #4.csv | 10/2/2019 | 9:29:34 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #40.csv | 10/2/2019 | 4:29:29 PM | #40 | | | | | | | | 3 | | | | | | |
| Res_543158_10_02_19 #41.csv | 10/2/2019 | 4:30:02 PM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #42.csv | 10/2/2019 | 4:31:38 PM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #43.csv | 10/2/2019 | 4:31:59 PM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #5.csv | 10/2/2019 | 9:30:09 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #6.csv | 10/2/2019 | 9:30:54 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #7.csv | 10/2/2019 | 9:31:38 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #8.csv | 10/2/2019 | 9:32:34 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_02_19 #9.csv | 10/2/2019 | 10:58:15 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #1.csv | 10/3/2019 | 7:56:23 AM | #1 | | | | | | | | 3 | | | | 36664 | 141 | 320 |
| Res_543158_10_03_19 #10.csv | 10/3/2019 | 8:11:44 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #11.csv | 10/3/2019 | 8:12:28 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #12.csv | 10/3/2019 | 8:14:01 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #13.csv | 10/3/2019 | 8:14:55 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #14.csv | 10/3/2019 | 8:15:50 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #15.csv | 10/3/2019 | 8:19:12 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #16.csv | 10/3/2019 | 8:22:47 AM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #17.csv | 10/3/2019 | 8:23:13 AM | #17 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #18.csv | 10/3/2019 | 8:23:24 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #19.csv | 10/3/2019 | 8:23:50 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #2.csv | 10/3/2019 | 8:06:15 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #20.csv | 10/3/2019 | 8:26:44 AM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #21.csv | 10/3/2019 | 8:40:30 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #22.csv | 10/3/2019 | 8:41:27 AM | #22 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #23.csv | 10/3/2019 | 8:41:41 AM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #24.csv | 10/3/2019 | 8:41:48 AM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #25.csv | 10/3/2019 | 8:41:52 AM | #25 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #26.csv | 10/3/2019 | 9:59:53 AM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #27.csv | 10/3/2019 | 10:00:34 AM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #28.csv | 10/3/2019 | 10:01:18 AM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #29.csv | 10/3/2019 | 11:13:08 AM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #3.csv | 10/3/2019 | 8:06:58 AM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #30.csv | 10/3/2019 | 11:28:11 AM | #30 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #31.csv | 10/3/2019 | 11:28:50 AM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #32.csv | 10/3/2019 | 11:29:32 AM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #34.csv | 10/3/2019 | 2:30:53 PM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #35.csv | 10/3/2019 | 2:31:38 PM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #36.csv | 10/3/2019 | 2:32:24 PM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #37.csv | 10/3/2019 | 2:33:15 PM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #38.csv | 10/3/2019 | 2:34:04 PM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #39.csv | 10/3/2019 | 2:34:35 PM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #4.csv | 10/3/2019 | 8:07:19 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #40.csv | 10/3/2019 | 2:35:52 PM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #41.csv | 10/3/2019 | 2:36:34 PM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #42.csv | 10/3/2019 | 2:37:18 PM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #43.csv | 10/3/2019 | 2:37:35 PM | #43 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #44.csv | 10/3/2019 | 2:38:14 PM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #46.csv | 10/3/2019 | 2:39:01 PM | #46 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #47.csv | 10/3/2019 | 2:41:49 PM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_03_19 #48.csv | 10/3/2019 | 2:42:26 PM | #48 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #49.csv | 10/3/2019 | 2:55:42 PM | #49 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #5.csv | 10/3/2019 | 8:08:02 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #50.csv | 10/3/2019 | 2:55:51 PM | #50 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #51.csv | 10/3/2019 | 2:56:29 PM | #51 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #52.csv | 10/3/2019 | 2:56:41 PM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #53.csv | 10/3/2019 | 2:56:53 PM | #53 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #54.csv | 10/3/2019 | 2:57:16 PM | #54 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #55.csv | 10/3/2019 | 3:18:38 PM | #55 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #56.csv | 10/3/2019 | 3:18:43 PM | #56 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #57.csv | 10/3/2019 | 3:19:18 PM | #57 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #58.csv | 10/3/2019 | 3:19:55 PM | #58 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #59.csv | 10/3/2019 | 3:20:19 PM | #59 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #6.csv | 10/3/2019 | 8:08:44 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #60.csv | 10/3/2019 | 3:21:53 PM | #60 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #61.csv | 10/3/2019 | 3:22:06 PM | #61 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #62.csv | 10/3/2019 | 3:23:01 PM | #62 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #63.csv | 10/3/2019 | 3:37:08 PM | #63 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #65.csv | 10/3/2019 | 3:37:55 PM | #65 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #66.csv | 10/3/2019 | 3:38:40 PM | #66 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #67.csv | 10/3/2019 | 4:22:42 PM | #67 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #68.csv | 10/3/2019 | 4:23:23 PM | #68 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #69.csv | 10/3/2019 | 4:24:05 PM | #69 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #7.csv | 10/3/2019 | 8:09:31 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #70.csv | 10/3/2019 | 4:24:44 PM | #70 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #72.csv | 10/3/2019 | 4:26:43 PM | #72 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #73.csv | 10/3/2019 | 4:27:23 PM | #73 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #74.csv | 10/3/2019 | 4:28:11 PM | #74 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #75.csv | 10/3/2019 | 4:32:55 PM | #75 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #76.csv | 10/3/2019 | 4:33:02 PM | #76 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #77.csv | 10/3/2019 | 4:33:36 PM | #77 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #78.csv | 10/3/2019 | 5:09:06 PM | #78 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #79.csv | 10/3/2019 | 5:09:48 PM | #79 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #8.csv | 10/3/2019 | 8:10:56 AM | #8 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #80.csv | 10/3/2019 | 5:10:28 PM | #80 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #81.csv | 10/3/2019 | 5:11:08 PM | #81 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #82.csv | 10/3/2019 | 5:11:55 PM | #82 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #83.csv | 10/3/2019 | 5:34:13 PM | #83 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #84.csv | 10/3/2019 | 5:34:47 PM | #84 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #85.csv | 10/3/2019 | 5:35:38 PM | #85 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #86.csv | 10/3/2019 | 5:35:51 PM | #86 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #87.csv | 10/3/2019 | 5:40:44 PM | #87 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #88.csv | 10/3/2019 | 5:41:26 PM | #88 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #89.csv | 10/3/2019 | 5:41:47 PM | #89 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_03_19 #9.csv | 10/3/2019 | 8:11:08 AM | #9 | | | | | | | | 3 | | | | | | |
| Res_543158_10_03_19 #90.csv | 10/3/2019 | 5:42:45 PM | #90 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #1.csv | 10/4/2019 | 8:31:10 AM | #1 | | | | | | | | 3 | | | | 37028 | 142 | 320 |
| Res_543158_10_04_19 #10.csv | 10/4/2019 | 9:12:34 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #11.csv | 10/4/2019 | 9:15:33 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #12.csv | 10/4/2019 | 9:23:38 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #13.csv | 10/4/2019 | 9:24:30 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #14.csv | 10/4/2019 | 9:27:23 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #15.csv | 10/4/2019 | 9:28:14 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #16.csv | 10/4/2019 | 9:29:03 AM | #16 | | | | | | | | 3 | | | | | | |
| Res_543158_10_04_19 #17.csv | 10/4/2019 | 9:29:10 AM | #17 | | | | | | | | 3 | | | | | | |
| Res_543158_10_04_19 #18.csv | 10/4/2019 | 9:30:36 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #19.csv | 10/4/2019 | 10:13:04 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #2.csv | 10/4/2019 | 8:40:31 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #20.csv | 10/4/2019 | 10:13:22 AM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #21.csv | 10/4/2019 | 10:14:58 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #22.csv | 10/4/2019 | 10:17:09 AM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #24.csv | 10/4/2019 | 10:19:17 AM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #25.csv | 10/4/2019 | 10:20:08 AM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #26.csv | 10/4/2019 | 10:21:34 AM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #27.csv | 10/4/2019 | 10:23:40 AM | #27 | | | | | | | | 3 | | | | | | |
| Res_543158_10_04_19 #28.csv | 10/4/2019 | 10:24:28 AM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #29.csv | 10/4/2019 | 10:24:32 AM | #29 | | | | | | | | 3 | | | | | | |
| Res_543158_10_04_19 #30.csv | 10/4/2019 | 10:25:57 AM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #31.csv | 10/4/2019 | 10:45:32 AM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #32.csv | 10/4/2019 | 10:47:40 AM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #33.csv | 10/4/2019 | 10:50:22 AM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_04_19 #34.csv | 10/4/2019 | 10:51:03 AM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #35.csv | 10/4/2019 | 10:53:56 AM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #36.csv | 10/4/2019 | 10:56:25 AM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #37.csv | 10/4/2019 | 10:59:43 AM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #39.csv | 10/4/2019 | 11:03:47 AM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #4.csv | 10/4/2019 | 8:53:56 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #40.csv | 10/4/2019 | 11:07:15 AM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #41.csv | 10/4/2019 | 11:14:04 AM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #42.csv | 10/4/2019 | 11:17:12 AM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #43.csv | 10/4/2019 | 11:21:16 AM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #44.csv | 10/4/2019 | 11:22:41 AM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #45.csv | 10/4/2019 | 11:26:45 AM | #45 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #46.csv | 10/4/2019 | 11:28:53 AM | #46 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #47.csv | 10/4/2019 | 11:30:18 AM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #48.csv | 10/4/2019 | 11:32:53 AM | #48 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #49.csv | 10/4/2019 | 11:35:48 AM | #49 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #5.csv | 10/4/2019 | 8:56:02 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #50.csv | 10/4/2019 | 11:39:36 AM | #50 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #51.csv | 10/4/2019 | 11:45:01 AM | #51 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #52.csv | 10/4/2019 | 11:48:12 AM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #53.csv | 10/4/2019 | 11:51:05 AM | #53 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #6.csv | 10/4/2019 | 9:10:22 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #7.csv | 10/4/2019 | 9:11:38 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #8.csv | 10/4/2019 | 9:12:05 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_04_19 #9.csv | 10/4/2019 | 9:12:24 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #1.csv | 10/7/2019 | 7:50:11 AM | #1 | | | | | | | | 3 | | | | 36602 | 142 | 320 |
| Res_543158_10_07_19 #10.csv | 10/7/2019 | 8:57:55 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #100.csv | 10/7/2019 | 4:23:32 PM | #100 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #101.csv | 10/7/2019 | 4:25:04 PM | #101 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #102.csv | 10/7/2019 | 4:31:16 PM | #102 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #103.csv | 10/7/2019 | 4:35:04 PM | #103 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #104.csv | 10/7/2019 | 4:40:42 PM | #104 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #105.csv | 10/7/2019 | 4:44:09 PM | #105 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #106.csv | 10/7/2019 | 4:44:47 PM | #106 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #107.csv | 10/7/2019 | 4:45:05 PM | #107 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #108.csv | 10/7/2019 | 4:45:41 PM | #108 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #109.csv | 10/7/2019 | 4:46:23 PM | #109 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #11.csv | 10/7/2019 | 8:59:32 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #110.csv | 10/7/2019 | 4:47:11 PM | #110 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #111.csv | 10/7/2019 | 4:48:29 PM | #111 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #112.csv | 10/7/2019 | 4:49:20 PM | #112 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #113.csv | 10/7/2019 | 4:50:03 PM | #113 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #114.csv | 10/7/2019 | 4:53:38 PM | #114 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #115.csv | 10/7/2019 | 4:54:19 PM | #115 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #12.csv | 10/7/2019 | 9:03:44 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #13.csv | 10/7/2019 | 9:06:33 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #14.csv | 10/7/2019 | 9:10:01 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #15.csv | 10/7/2019 | 9:11:37 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #16.csv | 10/7/2019 | 9:15:55 AM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #17.csv | 10/7/2019 | 9:17:32 AM | #17 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #18.csv | 10/7/2019 | 9:20:25 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #19.csv | 10/7/2019 | 9:21:03 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #2.csv | 10/7/2019 | 8:46:49 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #20.csv | 10/7/2019 | 9:22:34 AM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #21.csv | 10/7/2019 | 9:24:03 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #22.csv | 10/7/2019 | 9:25:27 AM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #23.csv | 10/7/2019 | 9:29:38 AM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #24.csv | 10/7/2019 | 9:31:43 AM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #25.csv | 10/7/2019 | 9:36:10 AM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #26.csv | 10/7/2019 | 9:42:51 AM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #27.csv | 10/7/2019 | 9:45:10 AM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #28.csv | 10/7/2019 | 9:47:29 AM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #29.csv | 10/7/2019 | 9:47:55 AM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #30.csv | 10/7/2019 | 9:49:19 AM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #31.csv | 10/7/2019 | 9:50:56 AM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #32.csv | 10/7/2019 | 9:51:21 AM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #33.csv | 10/7/2019 | 9:52:47 AM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #34.csv | 10/7/2019 | 9:59:41 AM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #35.csv | 10/7/2019 | 10:00:39 AM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #36.csv | 10/7/2019 | 10:02:26 AM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #37.csv | 10/7/2019 | 10:06:30 AM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_07_19 #38.csv | 10/7/2019 | 10:10:20 AM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #39.csv | 10/7/2019 | 10:13:35 AM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #4.csv | 10/7/2019 | 8:49:44 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #40.csv | 10/7/2019 | 10:15:06 AM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #41.csv | 10/7/2019 | 10:24:05 AM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #42.csv | 10/7/2019 | 10:27:48 AM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #43.csv | 10/7/2019 | 10:33:40 AM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #44.csv | 10/7/2019 | 10:36:38 AM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #45.csv | 10/7/2019 | 10:38:18 AM | #45 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #46.csv | 10/7/2019 | 10:41:10 AM | #46 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #47.csv | 10/7/2019 | 10:45:08 AM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #48.csv | 10/7/2019 | 10:50:22 AM | #48 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #49.csv | 10/7/2019 | 10:56:29 AM | #49 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #5.csv | 10/7/2019 | 8:49:58 AM | #5 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #50.csv | 10/7/2019 | 11:02:37 AM | #50 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #52.csv | 10/7/2019 | 11:04:52 AM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #53.csv | 10/7/2019 | 11:06:57 AM | #53 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #54.csv | 10/7/2019 | 11:31:04 AM | #54 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #55.csv | 10/7/2019 | 11:35:15 AM | #55 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #56.csv | 10/7/2019 | 11:38:09 AM | #56 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #57.csv | 10/7/2019 | 11:48:36 AM | #57 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #58.csv | 10/7/2019 | 11:49:37 AM | #58 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #59.csv | 10/7/2019 | 11:50:16 AM | #59 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #6.csv | 10/7/2019 | 8:51:31 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #60.csv | 10/7/2019 | 11:51:24 AM | #60 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #61.csv | 10/7/2019 | 11:52:14 AM | #61 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #62.csv | 10/7/2019 | 11:53:00 AM | #62 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #63.csv | 10/7/2019 | 11:54:30 AM | #63 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #64.csv | 10/7/2019 | 11:55:20 AM | #64 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #65.csv | 10/7/2019 | 11:57:20 AM | #65 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #66.csv | 10/7/2019 | 12:03:20 PM | #66 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #67.csv | 10/7/2019 | 2:12:24 PM | #67 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #68.csv | 10/7/2019 | 2:13:09 PM | #68 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #69.csv | 10/7/2019 | 2:13:51 PM | #69 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #7.csv | 10/7/2019 | 8:53:49 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #70.csv | 10/7/2019 | 2:14:58 PM | #70 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #71.csv | 10/7/2019 | 2:15:41 PM | #71 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #72.csv | 10/7/2019 | 2:16:48 PM | #72 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #73.csv | 10/7/2019 | 2:18:14 PM | #73 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #74.csv | 10/7/2019 | 2:18:37 PM | #74 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #75.csv | 10/7/2019 | 2:19:15 PM | #75 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #76.csv | 10/7/2019 | 2:32:16 PM | #76 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #77.csv | 10/7/2019 | 2:34:27 PM | #77 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #78.csv | 10/7/2019 | 2:40:41 PM | #78 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #79.csv | 10/7/2019 | 2:40:48 PM | #79 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #8.csv | 10/7/2019 | 8:56:15 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #80.csv | 10/7/2019 | 2:41:27 PM | #80 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #81.csv | 10/7/2019 | 2:43:00 PM | #81 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #82.csv | 10/7/2019 | 2:43:20 PM | #82 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #83.csv | 10/7/2019 | 2:43:55 PM | #83 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #84.csv | 10/7/2019 | 3:14:53 PM | #84 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #85.csv | 10/7/2019 | 3:15:39 PM | #85 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #86.csv | 10/7/2019 | 3:16:27 PM | #86 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #87.csv | 10/7/2019 | 3:33:49 PM | #87 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #88.csv | 10/7/2019 | 3:34:31 PM | #88 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #89.csv | 10/7/2019 | 3:48:51 PM | #89 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #9.csv | 10/7/2019 | 8:56:43 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #90.csv | 10/7/2019 | 3:50:17 PM | #90 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #91.csv | 10/7/2019 | 3:53:12 PM | #91 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #92.csv | 10/7/2019 | 3:57:14 PM | #92 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #93.csv | 10/7/2019 | 4:03:41 PM | #93 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #94.csv | 10/7/2019 | 4:09:24 PM | #94 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #95.csv | 10/7/2019 | 4:13:34 PM | #95 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #96.csv | 10/7/2019 | 4:15:11 PM | #96 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #97.csv | 10/7/2019 | 4:15:56 PM | #97 | | | | | | | | 3 | | | | | | |
| Res_543158_10_07_19 #98.csv | 10/7/2019 | 4:17:26 PM | #98 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_07_19 #99.csv | 10/7/2019 | 4:23:16 PM | #99 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #1.csv | 10/8/2019 | 7:22:48 AM | #1 | | | | | | | | 3 | | | | 35562 | 142 | 320 |
| Res_543158_10_08_19 #10.csv | 10/8/2019 | 9:01:20 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #11.csv | 10/8/2019 | 9:05:55 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #12.csv | 10/8/2019 | 9:09:33 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_08_19 #13.csv | 10/8/2019 | 9:11:11 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #14.csv | 10/8/2019 | 9:13:59 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #15.csv | 10/8/2019 | 9:17:19 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #16.csv | 10/8/2019 | 9:19:44 AM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #17.csv | 10/8/2019 | 9:23:23 AM | #17 | | | | | | | | 3 | | | | | | |
| Res_543158_10_08_19 #18.csv | 10/8/2019 | 9:24:03 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #19.csv | 10/8/2019 | 9:36:21 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #2.csv | 10/8/2019 | 8:07:31 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #20.csv | 10/8/2019 | 9:38:09 AM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #21.csv | 10/8/2019 | 9:41:45 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #22.csv | 10/8/2019 | 9:43:10 AM | #22 | | | | | | | | 3 | | | | | | |
| Res_543158_10_08_19 #23.csv | 10/8/2019 | 9:44:37 AM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #24.csv | 10/8/2019 | 9:48:12 AM | #24 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #25.csv | 10/8/2019 | 9:53:04 AM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #26.csv | 10/8/2019 | 9:56:31 AM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #27.csv | 10/8/2019 | 9:59:10 AM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #28.csv | 10/8/2019 | 10:01:35 AM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #29.csv | 10/8/2019 | 10:04:27 AM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #3.csv | 10/8/2019 | 8:21:14 AM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #30.csv | 10/8/2019 | 10:08:04 AM | #30 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #31.csv | 10/8/2019 | 12:46:14 PM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #32.csv | 10/8/2019 | 12:47:19 PM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #33.csv | 10/8/2019 | 12:48:15 PM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #34.csv | 10/8/2019 | 12:49:06 PM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #35.csv | 10/8/2019 | 1:05:48 PM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #36.csv | 10/8/2019 | 1:06:31 PM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #37.csv | 10/8/2019 | 1:07:29 PM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #38.csv | 10/8/2019 | 1:07:38 PM | #38 | | | | | | | | 3 | | | | | | |
| Res_543158_10_08_19 #39.csv | 10/8/2019 | 1:08:15 PM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #4.csv | 10/8/2019 | 8:22:53 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #40.csv | 10/8/2019 | 1:08:55 PM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #41.csv | 10/8/2019 | 1:09:35 PM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #42.csv | 10/8/2019 | 1:10:18 PM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #43.csv | 10/8/2019 | 1:11:08 PM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #44.csv | 10/8/2019 | 1:11:58 PM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #45.csv | 10/8/2019 | 1:15:09 PM | #45 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #46.csv | 10/8/2019 | 1:15:58 PM | #46 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #47.csv | 10/8/2019 | 2:30:17 PM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #48.csv | 10/8/2019 | 2:31:03 PM | #48 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #49.csv | 10/8/2019 | 2:31:54 PM | #49 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #5.csv | 10/8/2019 | 8:27:37 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #51.csv | 10/8/2019 | 2:32:58 PM | #51 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #52.csv | 10/8/2019 | 3:19:09 PM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #53.csv | 10/8/2019 | 3:19:18 PM | #53 | | | | | | | | 3 | | | | | | |
| Res_543158_10_08_19 #54.csv | 10/8/2019 | 3:19:56 PM | #54 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #55.csv | 10/8/2019 | 3:20:38 PM | #55 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #56.csv | 10/8/2019 | 3:21:46 PM | #56 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #57.csv | 10/8/2019 | 3:22:25 PM | #57 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #58.csv | 10/8/2019 | 3:23:15 PM | #58 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #59.csv | 10/8/2019 | 3:23:54 PM | #59 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #6.csv | 10/8/2019 | 8:35:14 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #60.csv | 10/8/2019 | 3:24:51 PM | #60 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #61.csv | 10/8/2019 | 3:25:38 PM | #61 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #62.csv | 10/8/2019 | 3:26:45 PM | #62 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #63.csv | 10/8/2019 | 3:27:43 PM | #63 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #64.csv | 10/8/2019 | 4:29:46 PM | #64 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #65.csv | 10/8/2019 | 4:30:39 PM | #65 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #7.csv | 10/8/2019 | 8:38:01 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #8.csv | 10/8/2019 | 8:47:02 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_08_19 #9.csv | 10/8/2019 | 8:49:50 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #1.csv | 10/9/2019 | 7:53:45 AM | #1 | | | | | | | | 3 | | | | 35043 | 143 | 320 |
| Res_543158_10_09_19 #10.csv | 10/9/2019 | 10:23:08 AM | #10 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #11.csv | 10/9/2019 | 10:23:56 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #12.csv | 10/9/2019 | 10:24:02 AM | #12 | | | | | | | | 3 | | | | | | |
| Res_543158_10_09_19 #13.csv | 10/9/2019 | 10:24:39 AM | #13 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #14.csv | 10/9/2019 | 10:37:03 AM | #14 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #15.csv | 10/9/2019 | 10:37:42 AM | #15 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #16.csv | 10/9/2019 | 10:38:18 AM | #16 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #17.csv | 10/9/2019 | 10:39:06 AM | #17 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #18.csv | 10/9/2019 | 10:39:43 AM | #18 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #19.csv | 10/9/2019 | 10:40:24 AM | #19 | | | | | Soil | Factory-Default | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | 3rd Match | LBP Result | LPB Concentration | LPB Error | Method Name | User Factor Name | LOD Sigma | Surface Pb Classification | Surface Pb Concentration | Surface Pb Error | Surface Pb Pass/Fail | Count Rate | Resolution | Peak 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Res_543158_10_09_19 #2.csv | 10/9/2019 | 8:36:54 AM | #2 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #20.csv | 10/9/2019 | 10:41:04 AM | #20 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #21.csv | 10/9/2019 | 10:43:51 AM | #21 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #22.csv | 10/9/2019 | 10:46:04 AM | #22 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #23.csv | 10/9/2019 | 10:46:46 AM | #23 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #24.csv | 10/9/2019 | 10:46:55 AM | #24 | | | | | | | | 3 | | | | | | |
| Res_543158_10_09_19 #25.csv | 10/9/2019 | 10:47:32 AM | #25 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #26.csv | 10/9/2019 | 12:03:29 PM | #26 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #27.csv | 10/9/2019 | 12:36:49 PM | #27 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #28.csv | 10/9/2019 | 12:37:29 PM | #28 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #29.csv | 10/9/2019 | 12:38:13 PM | #29 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #3.csv | 10/9/2019 | 8:37:31 AM | #3 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #30.csv | 10/9/2019 | 2:42:59 PM | #30 | | | | | | | | 3 | | | | | | |
| Res_543158_10_09_19 #31.csv | 10/9/2019 | 2:43:37 PM | #31 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #32.csv | 10/9/2019 | 2:44:17 PM | #32 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #33.csv | 10/9/2019 | 2:44:58 PM | #33 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #34.csv | 10/9/2019 | 2:45:38 PM | #34 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #35.csv | 10/9/2019 | 2:46:23 PM | #35 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #36.csv | 10/9/2019 | 2:50:06 PM | #36 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #37.csv | 10/9/2019 | 2:51:28 PM | #37 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #38.csv | 10/9/2019 | 2:55:04 PM | #38 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #39.csv | 10/9/2019 | 2:55:57 PM | #39 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #4.csv | 10/9/2019 | 8:38:11 AM | #4 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #40.csv | 10/9/2019 | 2:57:19 PM | #40 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #41.csv | 10/9/2019 | 2:58:34 PM | #41 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #42.csv | 10/9/2019 | 2:59:08 PM | #42 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #43.csv | 10/9/2019 | 2:59:46 PM | #43 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #44.csv | 10/9/2019 | 3:00:31 PM | #44 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #45.csv | 10/9/2019 | 3:02:43 PM | #45 | | | | | | | | 3 | | | | | | |
| Res_543158_10_09_19 #46.csv | 10/9/2019 | 3:03:19 PM | #46 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #47.csv | 10/9/2019 | 3:04:18 PM | #47 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #48.csv | 10/9/2019 | 3:05:29 PM | #48 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #5.csv | 10/9/2019 | 8:38:52 AM | #5 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #50.csv | 10/9/2019 | 3:07:48 PM | #50 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #51.csv | 10/9/2019 | 3:32:25 PM | #51 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #52.csv | 10/9/2019 | 3:33:21 PM | #52 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #53.csv | 10/9/2019 | 3:34:15 PM | #53 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #54.csv | 10/9/2019 | 3:34:56 PM | #54 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #55.csv | 10/9/2019 | 3:35:39 PM | #55 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #56.csv | 10/9/2019 | 4:00:38 PM | #56 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #57.csv | 10/9/2019 | 4:03:21 PM | #57 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #58.csv | 10/9/2019 | 4:03:58 PM | #58 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #59.csv | 10/9/2019 | 4:06:57 PM | #59 | | | | | | | | 3 | | | | | | |
| Res_543158_10_09_19 #6.csv | 10/9/2019 | 8:39:27 AM | #6 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #60.csv | 10/9/2019 | 4:07:33 PM | #60 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #61.csv | 10/9/2019 | 4:31:38 PM | #61 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #62.csv | 10/9/2019 | 4:31:48 PM | #62 | | | | | | | | 3 | | | | | | |
| Res_543158_10_09_19 #63.csv | 10/9/2019 | 4:31:56 PM | #63 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #64.csv | 10/9/2019 | 4:32:30 PM | #64 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #65.csv | 10/9/2019 | 4:33:08 PM | #65 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #66.csv | 10/9/2019 | 4:34:33 PM | #66 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #67.csv | 10/9/2019 | 4:36:14 PM | #67 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #68.csv | 10/9/2019 | 4:37:18 PM | #68 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #7.csv | 10/9/2019 | 10:21:21 AM | #7 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #8.csv | 10/9/2019 | 10:21:59 AM | #8 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_09_19 #9.csv | 10/9/2019 | 10:22:28 AM | #9 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_10_19 #1.csv | 10/10/2019 | 7:44:18 AM | #1 | | | | | | | | 3 | | | | 33963 | 142 | 320 |
| Res_543158_10_10_19 #10.csv | 10/10/2019 | 9:10:15 AM | #10 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #11.csv | 10/10/2019 | 9:12:05 AM | #11 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_10_19 #12.csv | 10/10/2019 | 9:12:43 AM | #12 | | | | | Soil | Factory-Default | | 3 | | | | | | |
| Res_543158_10_10_19 #2.csv | 10/10/2019 | 9:09:34 AM | #2 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #3.csv | 10/10/2019 | 9:09:42 AM | #3 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #4.csv | 10/10/2019 | 9:09:46 AM | #4 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #5.csv | 10/10/2019 | 9:09:51 AM | #5 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #6.csv | 10/10/2019 | 9:09:55 AM | #6 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #7.csv | 10/10/2019 | 9:10:03 AM | #7 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #8.csv | 10/10/2019 | 9:10:08 AM | #8 | | | | | | | | 3 | | | | | | |
| Res_543158_10_10_19 #9.csv | 10/10/2019 | 9:10:12 AM | #9 | | | | | | | | 3 | | | | | | |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_09_04_19 #1.csv | 9/4/2019 | 7:00:46 AM | #1 | 871 | Passed | Unknown | | |
| Res_543158_09_05_19 #1.csv | 9/5/2019 | 1:38:26 PM | #1 | 871 | Passed | Unknown | | |
| Res_543158_09_05_19 #2.csv | 9/5/2019 | 1:39:26 PM | #2 | | | No | | 986 |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:38:26 PM | #1 | 871 | Passed | Unknown | | 986 |
| Res_543158_09_05_19_R.csv | 9/5/2019 | 1:39:26 PM | #2 | | | No | | 986 |
| Res_543158_09_10_19 #1.csv | 9/10/2019 | 1:12:49 PM | #1 | 871 | Passed | Unknown | | |
| Res_543158_09_10_19 #2.csv | 9/10/2019 | 1:16:22 PM | #2 | | | No | | 992 |
| Res_543158_09_10_19 #3.csv | 9/10/2019 | 1:16:47 PM | #3 | | | No | | |
| Res_543158_09_10_19 #5.csv | 9/10/2019 | 1:17:37 PM | #5 | | | No | | 992 |
| Res_543158_09_10_19 #6.csv | 9/10/2019 | 1:17:45 PM | #6 | | | No | | |
| Res_543158_09_10_19 #7.csv | 9/10/2019 | 1:18:19 PM | #7 | | | No | | 992 |
| Res_543158_09_10_19 #8.csv | 9/10/2019 | 1:20:07 PM | #8 | | | No | | 992 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:12:49 PM | #1 | 871 | Passed | Unknown | | 992 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:22 PM | #2 | | | No | | 992 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:16:47 PM | #3 | | | No | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:37 PM | #5 | | | No | | 992 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:17:45 PM | #6 | | | No | | |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:18:19 PM | #7 | | | No | | 992 |
| Res_543158_09_10_19_R.csv | 9/10/2019 | 1:20:07 PM | #8 | | | No | | 992 |
| Res_543158_09_12_19 #10.csv | 9/12/2019 | 8:25:56 AM | #10 | | | No | | 891 |
| Res_543158_09_12_19 #101.csv | 9/12/2019 | 1:53:37 PM | #101 | | | No | | |
| Res_543158_09_12_19 #102.csv | 9/12/2019 | 1:53:40 PM | #102 | | | No | | |
| Res_543158_09_12_19 #103.csv | 9/12/2019 | 1:54:13 PM | #103 | | | No | | |
| Res_543158_09_12_19 #104.csv | 9/12/2019 | 1:54:16 PM | #104 | | | No | | |
| Res_543158_09_12_19 #105.csv | 9/12/2019 | 1:54:41 PM | #105 | | | No | | |
| Res_543158_09_12_19 #107.csv | 9/12/2019 | 1:56:15 PM | #107 | | | No | | 885 |
| Res_543158_09_12_19 #108.csv | 9/12/2019 | 1:56:39 PM | #108 | | | No | | 885 |
| Res_543158_09_12_19 #109.csv | 9/12/2019 | 1:56:58 PM | #109 | | | No | | 885 |
| Res_543158_09_12_19 #11.csv | 9/12/2019 | 8:26:49 AM | #11 | | | No | | 891 |
| Res_543158_09_12_19 #110.csv | 9/12/2019 | 1:57:25 PM | #110 | | | No | | 885 |
| Res_543158_09_12_19 #111.csv | 9/12/2019 | 1:57:47 PM | #111 | | | No | | 885 |
| Res_543158_09_12_19 #112.csv | 9/12/2019 | 1:58:27 PM | #112 | | | No | | 885 |
| Res_543158_09_12_19 #114.csv | 9/12/2019 | 1:58:57 PM | #114 | | | No | | 885 |
| Res_543158_09_12_19 #115.csv | 9/12/2019 | 2:29:25 PM | #115 | | | No | | 884 |
| Res_543158_09_12_19 #116.csv | 9/12/2019 | 2:29:55 PM | #116 | | | No | | 884 |
| Res_543158_09_12_19 #117.csv | 9/12/2019 | 2:30:19 PM | #117 | | | No | | 884 |
| Res_543158_09_12_19 #118.csv | 9/12/2019 | 2:30:48 PM | #118 | | | No | | 884 |
| Res_543158_09_12_19 #119.csv | 9/12/2019 | 3:04:32 PM | #119 | | | No | | 883 |
| Res_543158_09_12_19 #120.csv | 9/12/2019 | 3:05:06 PM | #120 | | | No | | 883 |
| Res_543158_09_12_19 #121.csv | 9/12/2019 | 3:05:28 PM | #121 | | | No | | 883 |
| Res_543158_09_12_19 #122.csv | 9/12/2019 | 3:05:52 PM | #122 | | | No | | 883 |
| Res_543158_09_12_19 #123.csv | 9/12/2019 | 3:06:11 PM | #123 | | | No | | 883 |
| Res_543158_09_12_19 #124.csv | 9/12/2019 | 3:06:34 PM | #124 | | | No | | 883 |
| Res_543158_09_12_19 #125.csv | 9/12/2019 | 3:06:56 PM | #125 | | | No | | 883 |
| Res_543158_09_12_19 #126.csv | 9/12/2019 | 3:16:06 PM | #126 | | | No | | 883 |
| Res_543158_09_12_19 #127.csv | 9/12/2019 | 3:16:34 PM | #127 | | | No | | 883 |
| Res_543158_09_12_19 #128.csv | 9/12/2019 | 3:16:58 PM | #128 | | | No | | 883 |
| Res_543158_09_12_19 #129.csv | 9/12/2019 | 3:20:17 PM | #129 | | | No | | 883 |
| Res_543158_09_12_19 #13.csv | 9/12/2019 | 8:28:36 AM | #13 | | | No | | 891 |
| Res_543158_09_12_19 #130.csv | 9/12/2019 | 3:20:50 PM | #130 | | | No | | 883 |
| Res_543158_09_12_19 #131.csv | 9/12/2019 | 3:56:36 PM | #131 | | | No | | 884 |
| Res_543158_09_12_19 #132.csv | 9/12/2019 | 3:57:07 PM | #132 | | | No | | 884 |
| Res_543158_09_12_19 #133.csv | 9/12/2019 | 3:57:33 PM | #133 | | | No | | 884 |
| Res_543158_09_12_19 #134.csv | 9/12/2019 | 3:57:54 PM | #134 | | | No | | 884 |
| Res_543158_09_12_19 #135.csv | 9/12/2019 | 3:58:15 PM | #135 | | | No | | 884 |
| Res_543158_09_12_19 #136.csv | 9/12/2019 | 3:58:40 PM | #136 | | | No | | 884 |
| Res_543158_09_12_19 #137.csv | 9/12/2019 | 3:59:05 PM | #137 | | | No | | 884 |
| Res_543158_09_12_19 #138.csv | 9/12/2019 | 4:09:19 PM | #138 | | | No | | 883 |
| Res_543158_09_12_19 #139.csv | 9/12/2019 | 4:09:42 PM | #139 | | | No | | 883 |
| Res_543158_09_12_19 #140.csv | 9/12/2019 | 4:10:06 PM | #140 | | | No | | 883 |
| Res_543158_09_12_19 #141.csv | 9/12/2019 | 4:10:36 PM | #141 | | | No | | 883 |
| Res_543158_09_12_19 #142.csv | 9/12/2019 | 4:11:03 PM | #142 | | | No | | 883 |
| Res_543158_09_12_19 #2.csv | 9/12/2019 | 7:21:20 AM | #2 | 871 | Passed | Unknown | | |
| Res_543158_09_12_19 #20.csv | 9/12/2019 | 9:51:50 AM | #20 | | | No | | |
| Res_543158_09_12_19 #21.csv | 9/12/2019 | 9:52:06 AM | #21 | | | No | | 890 |
| Res_543158_09_12_19 #22.csv | 9/12/2019 | 9:52:48 AM | #22 | | | No | | 890 |
| Res_543158_09_12_19 #23.csv | 9/12/2019 | 9:53:21 AM | #23 | | | No | | 890 |
| Res_543158_09_12_19 #24.csv | 9/12/2019 | 9:53:49 AM | #24 | | | No | | 890 |
| Res_543158_09_12_19 #25.csv | 9/12/2019 | 9:53:54 AM | #25 | | | No | | |
| Res_543158_09_12_19 #27.csv | 9/12/2019 | 9:54:29 AM | #27 | | | No | | |
| Res_543158_09_12_19 #28.csv | 9/12/2019 | 9:54:45 AM | #28 | | | No | | 890 |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #29.csv | 9/12/2019 | 9:55:12 AM | #29 | | | No | | 890 |
| Res_543158_09_12_19 #3.csv | 9/12/2019 | 7:22:35 AM | #3 | | | No | | 891 |
| Res_543158_09_12_19 #30.csv | 9/12/2019 | 9:55:39 AM | #30 | | | No | | 890 |
| Res_543158_09_12_19 #31.csv | 9/12/2019 | 9:56:01 AM | #31 | | | No | | 890 |
| Res_543158_09_12_19 #32.csv | 9/12/2019 | 10:31:57 AM | #32 | | | No | | 889 |
| Res_543158_09_12_19 #33.csv | 9/12/2019 | 10:32:21 AM | #33 | | | No | | 889 |
| Res_543158_09_12_19 #34.csv | 9/12/2019 | 10:32:46 AM | #34 | | | No | | 889 |
| Res_543158_09_12_19 #35.csv | 9/12/2019 | 10:33:09 AM | #35 | | | No | | 889 |
| Res_543158_09_12_19 #36.csv | 9/12/2019 | 10:33:23 AM | #36 | | | No | | |
| Res_543158_09_12_19 #37.csv | 9/12/2019 | 10:33:26 AM | #37 | | | No | | |
| Res_543158_09_12_19 #38.csv | 9/12/2019 | 10:33:42 AM | #38 | | | No | | 889 |
| Res_543158_09_12_19 #39.csv | 9/12/2019 | 10:34:08 AM | #39 | | | No | | 889 |
| Res_543158_09_12_19 #4.csv | 9/12/2019 | 7:22:48 AM | #4 | | | No | | 891 |
| Res_543158_09_12_19 #40.csv | 9/12/2019 | 10:34:31 AM | #40 | | | No | | 889 |
| Res_543158_09_12_19 #41.csv | 9/12/2019 | 10:40:37 AM | #41 | | | No | | 889 |
| Res_543158_09_12_19 #42.csv | 9/12/2019 | 10:41:01 AM | #42 | | | No | | 889 |
| Res_543158_09_12_19 #43.csv | 9/12/2019 | 10:41:26 AM | #43 | | | No | | 889 |
| Res_543158_09_12_19 #44.csv | 9/12/2019 | 10:41:50 AM | #44 | | | No | | 889 |
| Res_543158_09_12_19 #45.csv | 9/12/2019 | 10:42:13 AM | #45 | | | No | | 889 |
| Res_543158_09_12_19 #46.csv | 9/12/2019 | 11:35:30 AM | #46 | | | No | | |
| Res_543158_09_12_19 #47.csv | 9/12/2019 | 11:35:46 AM | #47 | | | No | | 888 |
| Res_543158_09_12_19 #48.csv | 9/12/2019 | 11:36:28 AM | #48 | | | No | | 888 |
| Res_543158_09_12_19 #49.csv | 9/12/2019 | 11:36:55 AM | #49 | | | No | | 888 |
| Res_543158_09_12_19 #50.csv | 9/12/2019 | 11:37:17 AM | #50 | | | No | | 888 |
| Res_543158_09_12_19 #51.csv | 9/12/2019 | 11:37:48 AM | #51 | | | No | | 888 |
| Res_543158_09_12_19 #52.csv | 9/12/2019 | 11:38:21 AM | #52 | | | No | | 888 |
| Res_543158_09_12_19 #53.csv | 9/12/2019 | 11:38:24 AM | #53 | | | No | | |
| Res_543158_09_12_19 #54.csv | 9/12/2019 | 11:38:55 AM | #54 | | | No | | 888 |
| Res_543158_09_12_19 #55.csv | 9/12/2019 | 11:39:18 AM | #55 | | | No | | 888 |
| Res_543158_09_12_19 #56.csv | 9/12/2019 | 11:39:49 AM | #56 | | | No | | 888 |
| Res_543158_09_12_19 #57.csv | 9/12/2019 | 11:49:50 AM | #57 | | | No | | 888 |
| Res_543158_09_12_19 #58.csv | 9/12/2019 | 11:50:16 AM | #58 | | | No | | 888 |
| Res_543158_09_12_19 #59.csv | 9/12/2019 | 11:50:36 AM | #59 | | | No | | |
| Res_543158_09_12_19 #6.csv | 9/12/2019 | 8:21:58 AM | #6 | | | No | | |
| Res_543158_09_12_19 #61.csv | 9/12/2019 | 11:50:56 AM | #61 | | | No | | 888 |
| Res_543158_09_12_19 #62.csv | 9/12/2019 | 11:51:19 AM | #62 | | | No | | 888 |
| Res_543158_09_12_19 #63.csv | 9/12/2019 | 11:51:30 AM | #63 | | | No | | |
| Res_543158_09_12_19 #64.csv | 9/12/2019 | 11:51:46 AM | #64 | | | No | | 888 |
| Res_543158_09_12_19 #65.csv | 9/12/2019 | 12:18:35 PM | #65 | | | No | | 887 |
| Res_543158_09_12_19 #66.csv | 9/12/2019 | 12:19:10 PM | #66 | | | No | | 887 |
| Res_543158_09_12_19 #67.csv | 9/12/2019 | 12:19:34 PM | #67 | | | No | | 887 |
| Res_543158_09_12_19 #68.csv | 9/12/2019 | 12:19:56 PM | #68 | | | No | | 887 |
| Res_543158_09_12_19 #69.csv | 9/12/2019 | 12:20:20 PM | #69 | | | No | | 887 |
| Res_543158_09_12_19 #7.csv | 9/12/2019 | 8:22:12 AM | #7 | | | No | | 891 |
| Res_543158_09_12_19 #70.csv | 9/12/2019 | 12:20:38 PM | #70 | | | No | | 887 |
| Res_543158_09_12_19 #71.csv | 9/12/2019 | 12:20:51 PM | #71 | | | No | | 887 |
| Res_543158_09_12_19 #72.csv | 9/12/2019 | 12:21:13 PM | #72 | | | No | | 887 |
| Res_543158_09_12_19 #73.csv | 9/12/2019 | 12:27:38 PM | #73 | | | No | | 887 |
| Res_543158_09_12_19 #74.csv | 9/12/2019 | 12:28:02 PM | #74 | | | No | | 887 |
| Res_543158_09_12_19 #75.csv | 9/12/2019 | 12:28:23 PM | #75 | | | No | | 887 |
| Res_543158_09_12_19 #76.csv | 9/12/2019 | 12:28:45 PM | #76 | | | No | | 887 |
| Res_543158_09_12_19 #77.csv | 9/12/2019 | 12:29:04 PM | #77 | | | No | | 887 |
| Res_543158_09_12_19 #78.csv | 9/12/2019 | 12:59:23 PM | #78 | | | No | | 886 |
| Res_543158_09_12_19 #79.csv | 9/12/2019 | 1:00:03 PM | #79 | | | No | | 886 |
| Res_543158_09_12_19 #8.csv | 9/12/2019 | 8:24:01 AM | #8 | | | No | | 891 |
| Res_543158_09_12_19 #80.csv | 9/12/2019 | 1:00:32 PM | #80 | | | No | | 886 |
| Res_543158_09_12_19 #82.csv | 9/12/2019 | 1:01:04 PM | #82 | | | No | | 886 |
| Res_543158_09_12_19 #83.csv | 9/12/2019 | 1:01:24 PM | #83 | | | No | | 886 |
| Res_543158_09_12_19 #84.csv | 9/12/2019 | 1:01:41 PM | #84 | | | No | | |
| Res_543158_09_12_19 #85.csv | 9/12/2019 | 1:01:58 PM | #85 | | | No | | 886 |
| Res_543158_09_12_19 #86.csv | 9/12/2019 | 1:02:22 PM | #86 | | | No | | 886 |
| Res_543158_09_12_19 #87.csv | 9/12/2019 | 1:06:51 PM | #87 | | | No | | 886 |
| Res_543158_09_12_19 #89.csv | 9/12/2019 | 1:07:08 PM | #89 | | | No | | |
| Res_543158_09_12_19 #9.csv | 9/12/2019 | 8:25:01 AM | #9 | | | No | | 891 |
| Res_543158_09_12_19 #90.csv | 9/12/2019 | 1:07:23 PM | #90 | | | No | | 886 |
| Res_543158_09_12_19 #91.csv | 9/12/2019 | 1:07:51 PM | #91 | | | No | | 886 |
| Res_543158_09_12_19 #92.csv | 9/12/2019 | 1:08:16 PM | #92 | | | No | | 886 |
| Res_543158_09_12_19 #93.csv | 9/12/2019 | 1:08:39 PM | #93 | | | No | | 886 |
| Res_543158_09_12_19 #94.csv | 9/12/2019 | 1:52:38 PM | #94 | | | No | | 885 |
| Res_543158_09_12_19 #95.csv | 9/12/2019 | 1:53:10 PM | #95 | | | No | | |
| Res_543158_09_12_19 #96.csv | 9/12/2019 | 1:53:14 PM | #96 | | | No | | |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_09_12_19 #97.csv | 9/12/2019 | 1:53:17 PM | #97 | | | No | | |
| Res_543158_09_12_19 #98.csv | 9/12/2019 | 1:53:22 PM | #98 | | | No | | |
| Res_543158_09_12_19 #99.csv | 9/12/2019 | 1:53:26 PM | #99 | | | No | | |
| Res_543158_09_13_19 #1.csv | 9/13/2019 | 8:54:57 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_09_13_19 #10.csv | 9/13/2019 | 9:37:21 AM | #10 | | | No | 882 | |
| Res_543158_09_13_19 #11.csv | 9/13/2019 | 9:43:28 AM | #11 | | | No | | |
| Res_543158_09_13_19 #12.csv | 9/13/2019 | 9:43:46 AM | #12 | | | No | 882 | |
| Res_543158_09_13_19 #13.csv | 9/13/2019 | 9:44:18 AM | #13 | | | No | 882 | |
| Res_543158_09_13_19 #14.csv | 9/13/2019 | 9:44:41 AM | #14 | | | No | 882 | |
| Res_543158_09_13_19 #15.csv | 9/13/2019 | 9:45:01 AM | #15 | | | No | 882 | |
| Res_543158_09_13_19 #16.csv | 9/13/2019 | 9:45:21 AM | #16 | | | No | 882 | |
| Res_543158_09_13_19 #17.csv | 9/13/2019 | 10:20:40 AM | #17 | | | No | | |
| Res_543158_09_13_19 #18.csv | 9/13/2019 | 10:20:55 AM | #18 | | | No | 883 | |
| Res_543158_09_13_19 #19.csv | 9/13/2019 | 10:21:42 AM | #19 | | | No | 883 | |
| Res_543158_09_13_19 #2.csv | 9/13/2019 | 9:34:12 AM | #2 | | 871 Passed | Unknown | | |
| Res_543158_09_13_19 #20.csv | 9/13/2019 | 10:22:09 AM | #20 | | | No | 883 | |
| Res_543158_09_13_19 #21.csv | 9/13/2019 | 10:22:23 AM | #21 | | | No | 883 | |
| Res_543158_09_13_19 #22.csv | 9/13/2019 | 10:22:48 AM | #22 | | | No | 883 | |
| Res_543158_09_13_19 #23.csv | 9/13/2019 | 10:23:14 AM | #23 | | | No | 883 | |
| Res_543158_09_13_19 #24.csv | 9/13/2019 | 10:23:39 AM | #24 | | | No | 883 | |
| Res_543158_09_13_19 #25.csv | 9/13/2019 | 10:24:02 AM | #25 | | | No | 883 | |
| Res_543158_09_13_19 #26.csv | 9/13/2019 | 10:35:02 AM | #26 | | | No | 883 | |
| Res_543158_09_13_19 #27.csv | 9/13/2019 | 10:35:28 AM | #27 | | | No | 883 | |
| Res_543158_09_13_19 #28.csv | 9/13/2019 | 10:35:47 AM | #28 | | | No | 883 | |
| Res_543158_09_13_19 #29.csv | 9/13/2019 | 10:36:07 AM | #29 | | | No | 883 | |
| Res_543158_09_13_19 #3.csv | 9/13/2019 | 9:34:37 AM | #3 | | 871 Passed | Unknown | | |
| Res_543158_09_13_19 #30.csv | 9/13/2019 | 10:36:26 AM | #30 | | | No | 883 | |
| Res_543158_09_13_19 #31.csv | 9/13/2019 | 11:27:15 AM | #31 | | | No | | |
| Res_543158_09_13_19 #32.csv | 9/13/2019 | 11:27:29 AM | #32 | | | No | 883 | |
| Res_543158_09_13_19 #33.csv | 9/13/2019 | 11:27:57 AM | #33 | | | No | 883 | |
| Res_543158_09_13_19 #34.csv | 9/13/2019 | 11:28:17 AM | #34 | | | No | 883 | |
| Res_543158_09_13_19 #35.csv | 9/13/2019 | 11:28:36 AM | #35 | | | No | 883 | |
| Res_543158_09_13_19 #36.csv | 9/13/2019 | 11:28:58 AM | #36 | | | No | 883 | |
| Res_543158_09_13_19 #37.csv | 9/13/2019 | 11:29:19 AM | #37 | | | No | 883 | |
| Res_543158_09_13_19 #38.csv | 9/13/2019 | 11:29:39 AM | #38 | | | No | 883 | |
| Res_543158_09_13_19 #39.csv | 9/13/2019 | 11:37:32 AM | #39 | | | No | 883 | |
| Res_543158_09_13_19 #4.csv | 9/13/2019 | 9:34:57 AM | #4 | | | No | 882 | |
| Res_543158_09_13_19 #40.csv | 9/13/2019 | 11:37:54 AM | #40 | | | No | 883 | |
| Res_543158_09_13_19 #41.csv | 9/13/2019 | 12:20:13 PM | #41 | | | No | 883 | |
| Res_543158_09_13_19 #42.csv | 9/13/2019 | 12:20:35 PM | #42 | | | No | 883 | |
| Res_543158_09_13_19 #43.csv | 9/13/2019 | 12:20:55 PM | #43 | | | No | 883 | |
| Res_543158_09_13_19 #44.csv | 9/13/2019 | 12:21:19 PM | #44 | | | No | 883 | |
| Res_543158_09_13_19 #45.csv | 9/13/2019 | 12:21:52 PM | #45 | | | No | 883 | |
| Res_543158_09_13_19 #46.csv | 9/13/2019 | 12:22:21 PM | #46 | | | No | 883 | |
| Res_543158_09_13_19 #47.csv | 9/13/2019 | 12:22:42 PM | #47 | | | No | 883 | |
| Res_543158_09_13_19 #48.csv | 9/13/2019 | 12:29:49 PM | #48 | | | No | | |
| Res_543158_09_13_19 #49.csv | 9/13/2019 | 12:30:03 PM | #49 | | | No | 883 | |
| Res_543158_09_13_19 #5.csv | 9/13/2019 | 9:35:28 AM | #5 | | | No | 882 | |
| Res_543158_09_13_19 #50.csv | 9/13/2019 | 12:30:26 PM | #50 | | | No | 883 | |
| Res_543158_09_13_19 #51.csv | 9/13/2019 | 12:30:58 PM | #51 | | | No | 883 | |
| Res_543158_09_13_19 #52.csv | 9/13/2019 | 12:31:22 PM | #52 | | | No | 883 | |
| Res_543158_09_13_19 #53.csv | 9/13/2019 | 12:31:49 PM | #53 | | | No | 883 | |
| Res_543158_09_13_19 #6.csv | 9/13/2019 | 9:35:49 AM | #6 | | | No | 882 | |
| Res_543158_09_13_19 #7.csv | 9/13/2019 | 9:36:08 AM | #7 | | | No | 882 | |
| Res_543158_09_13_19 #8.csv | 9/13/2019 | 9:36:32 AM | #8 | | | No | 882 | |
| Res_543158_09_13_19 #9.csv | 9/13/2019 | 9:36:59 AM | #9 | | | No | 882 | |
| Res_543158_09_17_19 #1.csv | 9/17/2019 | 1:24:02 PM | #1 | | 871 Passed | Unknown | | |
| Res_543158_09_18_19 #1.csv | 9/18/2019 | 11:56:18 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_09_18_19 #2.csv | 9/18/2019 | 11:58:20 AM | #2 | | | No | 974 | |
| Res_543158_09_18_19 #3.csv | 9/18/2019 | 12:01:28 PM | #3 | | | No | 974 | |
| Res_543158_09_18_19 #4.csv | 9/18/2019 | 12:02:09 PM | #4 | | 871 Passed | Unknown | | |
| Res_543158_09_18_19 #5.csv | 9/18/2019 | 12:04:25 PM | #5 | | | No | 974 | |
| Res_543158_09_25_19 #1.csv | 9/25/2019 | 8:52:36 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_09_25_19 #10.csv | 9/25/2019 | 10:09:30 AM | #10 | | | No | 974 | |
| Res_543158_09_25_19 #11.csv | 9/25/2019 | 10:09:40 AM | #11 | | | No | | |
| Res_543158_09_25_19 #12.csv | 9/25/2019 | 10:10:02 AM | #12 | | | No | 975 | |
| Res_543158_09_25_19 #14.csv | 9/25/2019 | 10:10:32 AM | #14 | | | No | 975 | |
| Res_543158_09_25_19 #15.csv | 9/25/2019 | 10:10:51 AM | #15 | | | No | 975 | |
| Res_543158_09_25_19 #16.csv | 9/25/2019 | 11:18:08 AM | #16 | | | No | 976 | |
| Res_543158_09_25_19 #17.csv | 9/25/2019 | 11:19:49 AM | #17 | | | No | 976 | |
| Res_543158_09_25_19 #18.csv | 9/25/2019 | 11:20:55 AM | #18 | | | No | 976 | |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_09_25_19 #19.csv | 9/25/2019 | 11:22:49 AM | #19 | | | No | | 976 |
| Res_543158_09_25_19 #2.csv | 9/25/2019 | 8:55:56 AM | #2 | | | No | | 974 |
| Res_543158_09_25_19 #20.csv | 9/25/2019 | 1:26:30 PM | #20 | | | No | | 974 |
| Res_543158_09_25_19 #21.csv | 9/25/2019 | 1:29:13 PM | #21 | | | No | | 974 |
| Res_543158_09_25_19 #22.csv | 9/25/2019 | 1:30:59 PM | #22 | | | No | | 975 |
| Res_543158_09_25_19 #23.csv | 9/25/2019 | 1:31:23 PM | #23 | | | No | | |
| Res_543158_09_25_19 #24.csv | 9/25/2019 | 1:31:48 PM | #24 | | | No | | 975 |
| Res_543158_09_25_19 #25.csv | 9/25/2019 | 1:32:27 PM | #25 | | | No | | 975 |
| Res_543158_09_25_19 #26.csv | 9/25/2019 | 1:34:05 PM | #26 | | | No | | 975 |
| Res_543158_09_25_19 #27.csv | 9/25/2019 | 1:41:59 PM | #27 | | | No | | 975 |
| Res_543158_09_25_19 #28.csv | 9/25/2019 | 1:42:19 PM | #28 | | | No | | 975 |
| Res_543158_09_25_19 #29.csv | 9/25/2019 | 1:43:55 PM | #29 | | | No | | 975 |
| Res_543158_09_25_19 #3.csv | 9/25/2019 | 8:57:41 AM | #3 | | | No | | 974 |
| Res_543158_09_25_19 #30.csv | 9/25/2019 | 1:44:16 PM | #30 | | | No | | 975 |
| Res_543158_09_25_19 #31.csv | 9/25/2019 | 1:44:45 PM | #31 | | | No | | 975 |
| Res_543158_09_25_19 #32.csv | 9/25/2019 | 1:48:46 PM | #32 | | | No | | |
| Res_543158_09_25_19 #33.csv | 9/25/2019 | 2:29:38 PM | #33 | | | No | | 973 |
| Res_543158_09_25_19 #34.csv | 9/25/2019 | 2:30:10 PM | #34 | | | No | | 973 |
| Res_543158_09_25_19 #35.csv | 9/25/2019 | 2:31:27 PM | #35 | | | No | | 973 |
| Res_543158_09_25_19 #36.csv | 9/25/2019 | 2:31:44 PM | #36 | | | No | | 973 |
| Res_543158_09_25_19 #37.csv | 9/25/2019 | 2:32:58 PM | #37 | | | No | | 973 |
| Res_543158_09_25_19 #38.csv | 9/25/2019 | 2:33:29 PM | #38 | | | No | | 974 |
| Res_543158_09_25_19 #39.csv | 9/25/2019 | 2:34:05 PM | #39 | | | No | | 974 |
| Res_543158_09_25_19 #4.csv | 9/25/2019 | 8:59:48 AM | #4 | | | No | | 975 |
| Res_543158_09_25_19 #40.csv | 9/25/2019 | 2:34:23 PM | #40 | | | No | | 974 |
| Res_543158_09_25_19 #41.csv | 9/25/2019 | 2:34:39 PM | #41 | | | No | | 974 |
| Res_543158_09_25_19 #42.csv | 9/25/2019 | 2:35:01 PM | #42 | | | No | | 974 |
| Res_543158_09_25_19 #43.csv | 9/25/2019 | 2:36:27 PM | #43 | | | No | | 974 |
| Res_543158_09_25_19 #44.csv | 9/25/2019 | 2:37:13 PM | #44 | | | No | | 974 |
| Res_543158_09_25_19 #45.csv | 9/25/2019 | 2:37:39 PM | #45 | | | No | | 974 |
| Res_543158_09_25_19 #5.csv | 9/25/2019 | 9:20:11 AM | #5 | | | No | | 974 |
| Res_543158_09_25_19 #6.csv | 9/25/2019 | 9:20:26 AM | #6 | | | No | | |
| Res_543158_09_25_19 #7.csv | 9/25/2019 | 9:20:56 AM | #7 | | | No | | 974 |
| Res_543158_09_25_19 #8.csv | 9/25/2019 | 9:21:28 AM | #8 | | | No | | 974 |
| Res_543158_09_25_19 #9.csv | 9/25/2019 | 9:22:13 AM | #9 | | | No | | 974 |
| Res_543158_10_01_19 #10.csv | 10/1/2019 | 12:27:38 PM | #10 | | | No | | 973 |
| Res_543158_10_01_19 #11.csv | 10/1/2019 | 12:28:21 PM | #11 | | | No | | 973 |
| Res_543158_10_01_19 #12.csv | 10/1/2019 | 2:23:53 PM | #12 | | | No | | 971 |
| Res_543158_10_01_19 #13.csv | 10/1/2019 | 2:24:04 PM | #13 | | | No | | |
| Res_543158_10_01_19 #15.csv | 10/1/2019 | 2:24:43 PM | #15 | | | No | | 971 |
| Res_543158_10_01_19 #16.csv | 10/1/2019 | 2:25:25 PM | #16 | | | No | | |
| Res_543158_10_01_19 #17.csv | 10/1/2019 | 2:26:15 PM | #17 | | | No | | 971 |
| Res_543158_10_01_19 #18.csv | 10/1/2019 | 2:26:51 PM | #18 | | | No | | 971 |
| Res_543158_10_01_19 #19.csv | 10/1/2019 | 2:27:33 PM | #19 | | | No | | 971 |
| Res_543158_10_01_19 #20.csv | 10/1/2019 | 3:00:12 PM | #20 | | | No | | 970 |
| Res_543158_10_01_19 #21.csv | 10/1/2019 | 3:01:24 PM | #21 | | | No | | 970 |
| Res_543158_10_01_19 #22.csv | 10/1/2019 | 4:10:30 PM | #22 | | | No | | 970 |
| Res_543158_10_01_19 #23.csv | 10/1/2019 | 4:11:16 PM | #23 | | | No | | 971 |
| Res_543158_10_01_19 #24.csv | 10/1/2019 | 4:11:28 PM | #24 | | | No | | |
| Res_543158_10_01_19 #25.csv | 10/1/2019 | 4:12:09 PM | #25 | | | No | | 971 |
| Res_543158_10_01_19 #26.csv | 10/1/2019 | 4:12:53 PM | #26 | | | No | | 971 |
| Res_543158_10_01_19 #27.csv | 10/1/2019 | 4:14:46 PM | #27 | | | No | | 971 |
| Res_543158_10_01_19 #28.csv | 10/1/2019 | 4:16:36 PM | #28 | | | No | | 971 |
| Res_543158_10_01_19 #29.csv | 10/1/2019 | 4:17:18 PM | #29 | | | No | | 971 |
| Res_543158_10_01_19 #30.csv | 10/1/2019 | 4:18:24 PM | #30 | | | No | | 971 |
| Res_543158_10_01_19 #4.csv | 10/1/2019 | 11:55:30 AM | #4 | | 871 Passed | Unknown | | |
| Res_543158_10_01_19 #7.csv | 10/1/2019 | 12:24:37 PM | #7 | | | No | | 972 |
| Res_543158_10_01_19 #8.csv | 10/1/2019 | 12:25:27 PM | #8 | | | No | | 972 |
| Res_543158_10_01_19 #9.csv | 10/1/2019 | 12:26:57 PM | #9 | | | No | | 972 |
| Res_543158_10_02_19 #1.csv | 10/2/2019 | 7:52:35 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_10_02_19 #10.csv | 10/2/2019 | 10:58:56 AM | #10 | | | No | | 971 |
| Res_543158_10_02_19 #11.csv | 10/2/2019 | 10:59:37 AM | #11 | | | No | | 971 |
| Res_543158_10_02_19 #12.csv | 10/2/2019 | 11:00:26 AM | #12 | | | No | | 971 |
| Res_543158_10_02_19 #13.csv | 10/2/2019 | 11:03:57 AM | #13 | | | No | | 971 |
| Res_543158_10_02_19 #14.csv | 10/2/2019 | 11:05:19 AM | #14 | | | No | | 971 |
| Res_543158_10_02_19 #15.csv | 10/2/2019 | 2:18:44 PM | #15 | | | No | | 970 |
| Res_543158_10_02_19 #16.csv | 10/2/2019 | 2:19:37 PM | #16 | | | No | | 970 |
| Res_543158_10_02_19 #17.csv | 10/2/2019 | 2:20:17 PM | #17 | | | No | | 970 |
| Res_543158_10_02_19 #18.csv | 10/2/2019 | 2:20:31 PM | #18 | | | No | | 970 |
| Res_543158_10_02_19 #19.csv | 10/2/2019 | 2:29:05 PM | #19 | | | No | | 970 |
| Res_543158_10_02_19 #2.csv | 10/2/2019 | 9:28:04 AM | #2 | | | No | | 970 |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_10_02_19 #20.csv | 10/2/2019 | 2:30:34 PM | #20 | | | No | | |
| Res_543158_10_02_19 #21.csv | 10/2/2019 | 2:30:59 PM | #21 | | | No | 970 | |
| Res_543158_10_02_19 #22.csv | 10/2/2019 | 2:34:54 PM | #22 | | | No | 969 | |
| Res_543158_10_02_19 #23.csv | 10/2/2019 | 2:35:38 PM | #23 | | | No | 969 | |
| Res_543158_10_02_19 #24.csv | 10/2/2019 | 2:36:22 PM | #24 | | | No | 969 | |
| Res_543158_10_02_19 #25.csv | 10/2/2019 | 2:37:43 PM | #25 | | | No | 970 | |
| Res_543158_10_02_19 #26.csv | 10/2/2019 | 2:38:30 PM | #26 | | | No | 970 | |
| Res_543158_10_02_19 #27.csv | 10/2/2019 | 2:39:12 PM | #27 | | | No | 970 | |
| Res_543158_10_02_19 #28.csv | 10/2/2019 | 2:40:07 PM | #28 | | | No | 970 | |
| Res_543158_10_02_19 #29.csv | 10/2/2019 | 2:40:56 PM | #29 | | | No | 970 | |
| Res_543158_10_02_19 #3.csv | 10/2/2019 | 9:28:49 AM | #3 | | | No | 970 | |
| Res_543158_10_02_19 #30.csv | 10/2/2019 | 2:41:44 PM | #30 | | | No | | |
| Res_543158_10_02_19 #31.csv | 10/2/2019 | 3:49:44 PM | #31 | | | No | 969 | |
| Res_543158_10_02_19 #32.csv | 10/2/2019 | 3:49:54 PM | #32 | | | No | | |
| Res_543158_10_02_19 #33.csv | 10/2/2019 | 3:50:31 PM | #33 | | | No | 969 | |
| Res_543158_10_02_19 #34.csv | 10/2/2019 | 3:51:11 PM | #34 | | | No | 969 | |
| Res_543158_10_02_19 #35.csv | 10/2/2019 | 4:27:05 PM | #35 | | | No | 969 | |
| Res_543158_10_02_19 #36.csv | 10/2/2019 | 4:27:47 PM | #36 | | | No | 969 | |
| Res_543158_10_02_19 #37.csv | 10/2/2019 | 4:28:43 PM | #37 | | | No | 969 | |
| Res_543158_10_02_19 #38.csv | 10/2/2019 | 4:28:59 PM | #38 | | | No | 969 | |
| Res_543158_10_02_19 #39.csv | 10/2/2019 | 4:29:25 PM | #39 | | | No | 969 | |
| Res_543158_10_02_19 #4.csv | 10/2/2019 | 9:29:34 AM | #4 | | | No | 970 | |
| Res_543158_10_02_19 #40.csv | 10/2/2019 | 4:29:29 PM | #40 | | | No | | |
| Res_543158_10_02_19 #41.csv | 10/2/2019 | 4:30:02 PM | #41 | | | No | 969 | |
| Res_543158_10_02_19 #42.csv | 10/2/2019 | 4:31:38 PM | #42 | | | No | 969 | |
| Res_543158_10_02_19 #43.csv | 10/2/2019 | 4:31:59 PM | #43 | | | No | 969 | |
| Res_543158_10_02_19 #5.csv | 10/2/2019 | 9:30:09 AM | #5 | | | No | | |
| Res_543158_10_02_19 #6.csv | 10/2/2019 | 9:30:54 AM | #6 | | | No | 970 | |
| Res_543158_10_02_19 #7.csv | 10/2/2019 | 9:31:38 AM | #7 | | | No | | |
| Res_543158_10_02_19 #8.csv | 10/2/2019 | 9:32:34 AM | #8 | | | No | 971 | |
| Res_543158_10_02_19 #9.csv | 10/2/2019 | 10:58:15 AM | #9 | | | No | 971 | |
| Res_543158_10_03_19 #1.csv | 10/3/2019 | 7:56:23 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_10_03_19 #10.csv | 10/3/2019 | 8:11:44 AM | #10 | | | No | 967 | |
| Res_543158_10_03_19 #11.csv | 10/3/2019 | 8:12:28 AM | #11 | | | No | 967 | |
| Res_543158_10_03_19 #12.csv | 10/3/2019 | 8:14:01 AM | #12 | | | No | 967 | |
| Res_543158_10_03_19 #13.csv | 10/3/2019 | 8:14:55 AM | #13 | | | No | | |
| Res_543158_10_03_19 #14.csv | 10/3/2019 | 8:15:50 AM | #14 | | | No | 967 | |
| Res_543158_10_03_19 #15.csv | 10/3/2019 | 8:19:12 AM | #15 | | | No | 967 | |
| Res_543158_10_03_19 #16.csv | 10/3/2019 | 8:22:47 AM | #16 | | | No | 967 | |
| Res_543158_10_03_19 #17.csv | 10/3/2019 | 8:23:13 AM | #17 | | | No | | |
| Res_543158_10_03_19 #18.csv | 10/3/2019 | 8:23:24 AM | #18 | | | No | 967 | |
| Res_543158_10_03_19 #19.csv | 10/3/2019 | 8:23:50 AM | #19 | | | No | 967 | |
| Res_543158_10_03_19 #2.csv | 10/3/2019 | 8:06:15 AM | #2 | | | No | 967 | |
| Res_543158_10_03_19 #20.csv | 10/3/2019 | 8:26:44 AM | #20 | | | No | 967 | |
| Res_543158_10_03_19 #21.csv | 10/3/2019 | 8:40:30 AM | #21 | | | No | 967 | |
| Res_543158_10_03_19 #22.csv | 10/3/2019 | 8:41:27 AM | #22 | | | No | | |
| Res_543158_10_03_19 #23.csv | 10/3/2019 | 8:41:41 AM | #23 | | | No | 967 | |
| Res_543158_10_03_19 #24.csv | 10/3/2019 | 8:41:48 AM | #24 | | | No | 967 | |
| Res_543158_10_03_19 #25.csv | 10/3/2019 | 8:41:52 AM | #25 | | | No | | |
| Res_543158_10_03_19 #26.csv | 10/3/2019 | 9:59:53 AM | #26 | | | No | 967 | |
| Res_543158_10_03_19 #27.csv | 10/3/2019 | 10:00:34 AM | #27 | | | No | 967 | |
| Res_543158_10_03_19 #28.csv | 10/3/2019 | 10:01:18 AM | #28 | | | No | 967 | |
| Res_543158_10_03_19 #29.csv | 10/3/2019 | 11:13:08 AM | #29 | | | No | 966 | |
| Res_543158_10_03_19 #3.csv | 10/3/2019 | 8:06:58 AM | #3 | | | No | 967 | |
| Res_543158_10_03_19 #30.csv | 10/3/2019 | 11:28:11 AM | #30 | | | No | | |
| Res_543158_10_03_19 #31.csv | 10/3/2019 | 11:28:50 AM | #31 | | | No | 967 | |
| Res_543158_10_03_19 #32.csv | 10/3/2019 | 11:29:32 AM | #32 | | | No | 967 | |
| Res_543158_10_03_19 #34.csv | 10/3/2019 | 2:30:53 PM | #34 | | | No | | |
| Res_543158_10_03_19 #35.csv | 10/3/2019 | 2:31:38 PM | #35 | | | No | 964 | |
| Res_543158_10_03_19 #36.csv | 10/3/2019 | 2:32:24 PM | #36 | | | No | 964 | |
| Res_543158_10_03_19 #37.csv | 10/3/2019 | 2:33:15 PM | #37 | | | No | 965 | |
| Res_543158_10_03_19 #38.csv | 10/3/2019 | 2:34:04 PM | #38 | | | No | 965 | |
| Res_543158_10_03_19 #39.csv | 10/3/2019 | 2:34:35 PM | #39 | | | No | 965 | |
| Res_543158_10_03_19 #4.csv | 10/3/2019 | 8:07:19 AM | #4 | | | No | 967 | |
| Res_543158_10_03_19 #40.csv | 10/3/2019 | 2:35:52 PM | #40 | | | No | 965 | |
| Res_543158_10_03_19 #41.csv | 10/3/2019 | 2:36:34 PM | #41 | | | No | 965 | |
| Res_543158_10_03_19 #42.csv | 10/3/2019 | 2:37:18 PM | #42 | | | No | 965 | |
| Res_543158_10_03_19 #43.csv | 10/3/2019 | 2:37:35 PM | #43 | | | No | | |
| Res_543158_10_03_19 #44.csv | 10/3/2019 | 2:38:14 PM | #44 | | | No | 965 | |
| Res_543158_10_03_19 #46.csv | 10/3/2019 | 2:39:01 PM | #46 | | | No | 965 | |
| Res_543158_10_03_19 #47.csv | 10/3/2019 | 2:41:49 PM | #47 | | | No | 965 | |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_10_03_19 #48.csv | 10/3/2019 | 2:42:26 PM | #48 | | | No | | 965 |
| Res_543158_10_03_19 #49.csv | 10/3/2019 | 2:55:42 PM | #49 | | | No | | 965 |
| Res_543158_10_03_19 #5.csv | 10/3/2019 | 8:08:02 AM | #5 | | | No | | 967 |
| Res_543158_10_03_19 #50.csv | 10/3/2019 | 2:55:51 PM | #50 | | | No | | |
| Res_543158_10_03_19 #51.csv | 10/3/2019 | 2:56:29 PM | #51 | | | No | | 965 |
| Res_543158_10_03_19 #52.csv | 10/3/2019 | 2:56:41 PM | #52 | | | No | | 965 |
| Res_543158_10_03_19 #53.csv | 10/3/2019 | 2:56:53 PM | #53 | | | No | | 965 |
| Res_543158_10_03_19 #54.csv | 10/3/2019 | 2:57:16 PM | #54 | | | No | | 965 |
| Res_543158_10_03_19 #55.csv | 10/3/2019 | 3:18:38 PM | #55 | | | No | | |
| Res_543158_10_03_19 #56.csv | 10/3/2019 | 3:18:43 PM | #56 | | | No | | |
| Res_543158_10_03_19 #57.csv | 10/3/2019 | 3:19:18 PM | #57 | | | No | | 965 |
| Res_543158_10_03_19 #58.csv | 10/3/2019 | 3:19:55 PM | #58 | | | No | | 965 |
| Res_543158_10_03_19 #59.csv | 10/3/2019 | 3:20:19 PM | #59 | | | No | | 965 |
| Res_543158_10_03_19 #6.csv | 10/3/2019 | 8:08:44 AM | #6 | | | No | | 967 |
| Res_543158_10_03_19 #60.csv | 10/3/2019 | 3:21:53 PM | #60 | | | No | | 965 |
| Res_543158_10_03_19 #61.csv | 10/3/2019 | 3:22:06 PM | #61 | | | No | | 965 |
| Res_543158_10_03_19 #62.csv | 10/3/2019 | 3:23:01 PM | #62 | | | No | | 965 |
| Res_543158_10_03_19 #63.csv | 10/3/2019 | 3:37:08 PM | #63 | | | No | | 965 |
| Res_543158_10_03_19 #65.csv | 10/3/2019 | 3:37:55 PM | #65 | | | No | | 965 |
| Res_543158_10_03_19 #66.csv | 10/3/2019 | 3:38:40 PM | #66 | | | No | | 965 |
| Res_543158_10_03_19 #67.csv | 10/3/2019 | 4:22:42 PM | #67 | | | No | | |
| Res_543158_10_03_19 #68.csv | 10/3/2019 | 4:23:23 PM | #68 | | | No | | 965 |
| Res_543158_10_03_19 #69.csv | 10/3/2019 | 4:24:05 PM | #69 | | | No | | 965 |
| Res_543158_10_03_19 #7.csv | 10/3/2019 | 8:09:31 AM | #7 | | | No | | 967 |
| Res_543158_10_03_19 #70.csv | 10/3/2019 | 4:24:44 PM | #70 | | | No | | 965 |
| Res_543158_10_03_19 #72.csv | 10/3/2019 | 4:26:43 PM | #72 | | | No | | 965 |
| Res_543158_10_03_19 #73.csv | 10/3/2019 | 4:27:23 PM | #73 | | | No | | 965 |
| Res_543158_10_03_19 #74.csv | 10/3/2019 | 4:28:11 PM | #74 | | | No | | 965 |
| Res_543158_10_03_19 #75.csv | 10/3/2019 | 4:32:55 PM | #75 | | | No | | 965 |
| Res_543158_10_03_19 #76.csv | 10/3/2019 | 4:33:02 PM | #76 | | | No | | |
| Res_543158_10_03_19 #77.csv | 10/3/2019 | 4:33:36 PM | #77 | | | No | | 965 |
| Res_543158_10_03_19 #78.csv | 10/3/2019 | 5:09:06 PM | #78 | | | No | | 964 |
| Res_543158_10_03_19 #79.csv | 10/3/2019 | 5:09:48 PM | #79 | | | No | | 964 |
| Res_543158_10_03_19 #8.csv | 10/3/2019 | 8:10:56 AM | #8 | | | No | | |
| Res_543158_10_03_19 #80.csv | 10/3/2019 | 5:10:28 PM | #80 | | | No | | 964 |
| Res_543158_10_03_19 #81.csv | 10/3/2019 | 5:11:08 PM | #81 | | | No | | 964 |
| Res_543158_10_03_19 #82.csv | 10/3/2019 | 5:11:55 PM | #82 | | | No | | 964 |
| Res_543158_10_03_19 #83.csv | 10/3/2019 | 5:34:13 PM | #83 | | | No | | 964 |
| Res_543158_10_03_19 #84.csv | 10/3/2019 | 5:34:47 PM | #84 | | | No | | 964 |
| Res_543158_10_03_19 #85.csv | 10/3/2019 | 5:35:38 PM | #85 | | | No | | |
| Res_543158_10_03_19 #86.csv | 10/3/2019 | 5:35:51 PM | #86 | | | No | | |
| Res_543158_10_03_19 #87.csv | 10/3/2019 | 5:40:44 PM | #87 | | | No | | 964 |
| Res_543158_10_03_19 #88.csv | 10/3/2019 | 5:41:26 PM | #88 | | | No | | 964 |
| Res_543158_10_03_19 #89.csv | 10/3/2019 | 5:41:47 PM | #89 | | | No | | 964 |
| Res_543158_10_03_19 #9.csv | 10/3/2019 | 8:11:08 AM | #9 | | | No | | |
| Res_543158_10_03_19 #90.csv | 10/3/2019 | 5:42:45 PM | #90 | | | No | | 964 |
| Res_543158_10_04_19 #1.csv | 10/4/2019 | 8:31:10 AM | #1 | 871 Passed | | Unknown | | |
| Res_543158_10_04_19 #10.csv | 10/4/2019 | 9:12:34 AM | #10 | | | No | | 969 |
| Res_543158_10_04_19 #11.csv | 10/4/2019 | 9:15:33 AM | #11 | | | No | | 969 |
| Res_543158_10_04_19 #12.csv | 10/4/2019 | 9:23:38 AM | #12 | | | No | | 969 |
| Res_543158_10_04_19 #13.csv | 10/4/2019 | 9:24:30 AM | #13 | | | No | | 969 |
| Res_543158_10_04_19 #14.csv | 10/4/2019 | 9:27:23 AM | #14 | | | No | | 969 |
| Res_543158_10_04_19 #15.csv | 10/4/2019 | 9:28:14 AM | #15 | | | No | | 969 |
| Res_543158_10_04_19 #16.csv | 10/4/2019 | 9:29:03 AM | #16 | | | No | | |
| Res_543158_10_04_19 #17.csv | 10/4/2019 | 9:29:10 AM | #17 | | | No | | |
| Res_543158_10_04_19 #18.csv | 10/4/2019 | 9:30:36 AM | #18 | | | No | | 969 |
| Res_543158_10_04_19 #19.csv | 10/4/2019 | 10:13:04 AM | #19 | | | No | | 968 |
| Res_543158_10_04_19 #2.csv | 10/4/2019 | 8:40:31 AM | #2 | | | No | | 968 |
| Res_543158_10_04_19 #20.csv | 10/4/2019 | 10:13:22 AM | #20 | | | No | | 968 |
| Res_543158_10_04_19 #21.csv | 10/4/2019 | 10:14:58 AM | #21 | | | No | | 968 |
| Res_543158_10_04_19 #22.csv | 10/4/2019 | 10:17:09 AM | #22 | | | No | | 969 |
| Res_543158_10_04_19 #24.csv | 10/4/2019 | 10:19:17 AM | #24 | | | No | | 969 |
| Res_543158_10_04_19 #25.csv | 10/4/2019 | 10:20:08 AM | #25 | | | No | | |
| Res_543158_10_04_19 #26.csv | 10/4/2019 | 10:21:34 AM | #26 | | | No | | 969 |
| Res_543158_10_04_19 #27.csv | 10/4/2019 | 10:23:40 AM | #27 | | | No | | |
| Res_543158_10_04_19 #28.csv | 10/4/2019 | 10:24:28 AM | #28 | | | No | | |
| Res_543158_10_04_19 #29.csv | 10/4/2019 | 10:24:32 AM | #29 | | | No | | |
| Res_543158_10_04_19 #30.csv | 10/4/2019 | 10:25:57 AM | #30 | | | No | | 969 |
| Res_543158_10_04_19 #31.csv | 10/4/2019 | 10:45:32 AM | #31 | | | No | | 969 |
| Res_543158_10_04_19 #32.csv | 10/4/2019 | 10:47:40 AM | #32 | | | No | | 969 |
| Res_543158_10_04_19 #33.csv | 10/4/2019 | 10:50:22 AM | #33 | | | No | | 969 |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_10_04_19 #34.csv | 10/4/2019 | 10:51:03 AM | #34 | | | No | 969 | |
| Res_543158_10_04_19 #35.csv | 10/4/2019 | 10:53:56 AM | #35 | | | No | 969 | |
| Res_543158_10_04_19 #36.csv | 10/4/2019 | 10:56:25 AM | #36 | | | No | 969 | |
| Res_543158_10_04_19 #37.csv | 10/4/2019 | 10:59:43 AM | #37 | | | No | 969 | |
| Res_543158_10_04_19 #39.csv | 10/4/2019 | 11:03:47 AM | #39 | | | No | 969 | |
| Res_543158_10_04_19 #4.csv | 10/4/2019 | 8:53:56 AM | #4 | | | No | 968 | |
| Res_543158_10_04_19 #40.csv | 10/4/2019 | 11:07:15 AM | #40 | | | No | 969 | |
| Res_543158_10_04_19 #41.csv | 10/4/2019 | 11:14:04 AM | #41 | | | No | 969 | |
| Res_543158_10_04_19 #42.csv | 10/4/2019 | 11:17:12 AM | #42 | | | No | 969 | |
| Res_543158_10_04_19 #43.csv | 10/4/2019 | 11:21:16 AM | #43 | | | No | 969 | |
| Res_543158_10_04_19 #44.csv | 10/4/2019 | 11:22:41 AM | #44 | | | No | 969 | |
| Res_543158_10_04_19 #45.csv | 10/4/2019 | 11:26:45 AM | #45 | | | No | 969 | |
| Res_543158_10_04_19 #46.csv | 10/4/2019 | 11:28:53 AM | #46 | | | No | 969 | |
| Res_543158_10_04_19 #47.csv | 10/4/2019 | 11:30:18 AM | #47 | | | No | 969 | |
| Res_543158_10_04_19 #48.csv | 10/4/2019 | 11:32:53 AM | #48 | | | No | 969 | |
| Res_543158_10_04_19 #49.csv | 10/4/2019 | 11:35:48 AM | #49 | | | No | 969 | |
| Res_543158_10_04_19 #5.csv | 10/4/2019 | 8:56:02 AM | #5 | | | No | 968 | |
| Res_543158_10_04_19 #50.csv | 10/4/2019 | 11:39:36 AM | #50 | | | No | 969 | |
| Res_543158_10_04_19 #51.csv | 10/4/2019 | 11:45:01 AM | #51 | | | No | 970 | |
| Res_543158_10_04_19 #52.csv | 10/4/2019 | 11:48:12 AM | #52 | | | No | 970 | |
| Res_543158_10_04_19 #53.csv | 10/4/2019 | 11:51:05 AM | #53 | | | No | 970 | |
| Res_543158_10_04_19 #6.csv | 10/4/2019 | 9:10:22 AM | #6 | | | No | 969 | |
| Res_543158_10_04_19 #7.csv | 10/4/2019 | 9:11:38 AM | #7 | | | No | 969 | |
| Res_543158_10_04_19 #8.csv | 10/4/2019 | 9:12:05 AM | #8 | | | No | 969 | |
| Res_543158_10_04_19 #9.csv | 10/4/2019 | 9:12:24 AM | #9 | | | No | 969 | |
| Res_543158_10_07_19 #1.csv | 10/7/2019 | 7:50:11 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_10_07_19 #10.csv | 10/7/2019 | 8:57:55 AM | #10 | | | No | 968 | |
| Res_543158_10_07_19 #100.csv | 10/7/2019 | 4:23:32 PM | #100 | | | No | | |
| Res_543158_10_07_19 #101.csv | 10/7/2019 | 4:25:04 PM | #101 | | | No | 961 | |
| Res_543158_10_07_19 #102.csv | 10/7/2019 | 4:31:16 PM | #102 | | | No | 961 | |
| Res_543158_10_07_19 #103.csv | 10/7/2019 | 4:35:04 PM | #103 | | | No | 961 | |
| Res_543158_10_07_19 #104.csv | 10/7/2019 | 4:40:42 PM | #104 | | | No | 961 | |
| Res_543158_10_07_19 #105.csv | 10/7/2019 | 4:44:09 PM | #105 | | | No | | |
| Res_543158_10_07_19 #106.csv | 10/7/2019 | 4:44:47 PM | #106 | | | No | 961 | |
| Res_543158_10_07_19 #107.csv | 10/7/2019 | 4:45:05 PM | #107 | | | No | | |
| Res_543158_10_07_19 #108.csv | 10/7/2019 | 4:45:41 PM | #108 | | | No | 961 | |
| Res_543158_10_07_19 #109.csv | 10/7/2019 | 4:46:23 PM | #109 | | | No | 961 | |
| Res_543158_10_07_19 #11.csv | 10/7/2019 | 8:59:32 AM | #11 | | | No | 968 | |
| Res_543158_10_07_19 #110.csv | 10/7/2019 | 4:47:11 PM | #110 | | | No | 961 | |
| Res_543158_10_07_19 #111.csv | 10/7/2019 | 4:48:29 PM | #111 | | | No | 961 | |
| Res_543158_10_07_19 #112.csv | 10/7/2019 | 4:49:20 PM | #112 | | | No | 961 | |
| Res_543158_10_07_19 #113.csv | 10/7/2019 | 4:50:03 PM | #113 | | | No | 961 | |
| Res_543158_10_07_19 #114.csv | 10/7/2019 | 4:53:38 PM | #114 | | | No | 961 | |
| Res_543158_10_07_19 #115.csv | 10/7/2019 | 4:54:19 PM | #115 | | | No | 961 | |
| Res_543158_10_07_19 #12.csv | 10/7/2019 | 9:03:44 AM | #12 | | | No | 968 | |
| Res_543158_10_07_19 #13.csv | 10/7/2019 | 9:06:33 AM | #13 | | | No | 967 | |
| Res_543158_10_07_19 #14.csv | 10/7/2019 | 9:10:01 AM | #14 | | | No | 967 | |
| Res_543158_10_07_19 #15.csv | 10/7/2019 | 9:11:37 AM | #15 | | | No | 967 | |
| Res_543158_10_07_19 #16.csv | 10/7/2019 | 9:15:55 AM | #16 | | | No | 967 | |
| Res_543158_10_07_19 #17.csv | 10/7/2019 | 9:17:32 AM | #17 | | | No | 967 | |
| Res_543158_10_07_19 #18.csv | 10/7/2019 | 9:20:25 AM | #18 | | | No | 967 | |
| Res_543158_10_07_19 #19.csv | 10/7/2019 | 9:21:03 AM | #19 | | | No | 967 | |
| Res_543158_10_07_19 #2.csv | 10/7/2019 | 8:46:49 AM | #2 | | | No | 968 | |
| Res_543158_10_07_19 #20.csv | 10/7/2019 | 9:22:34 AM | #20 | | | No | 967 | |
| Res_543158_10_07_19 #21.csv | 10/7/2019 | 9:24:03 AM | #21 | | | No | 967 | |
| Res_543158_10_07_19 #22.csv | 10/7/2019 | 9:25:27 AM | #22 | | | No | 967 | |
| Res_543158_10_07_19 #23.csv | 10/7/2019 | 9:29:38 AM | #23 | | | No | 967 | |
| Res_543158_10_07_19 #24.csv | 10/7/2019 | 9:31:43 AM | #24 | | | No | 967 | |
| Res_543158_10_07_19 #25.csv | 10/7/2019 | 9:36:10 AM | #25 | | | No | 967 | |
| Res_543158_10_07_19 #26.csv | 10/7/2019 | 9:42:51 AM | #26 | | | No | 967 | |
| Res_543158_10_07_19 #27.csv | 10/7/2019 | 9:45:10 AM | #27 | | | No | 967 | |
| Res_543158_10_07_19 #28.csv | 10/7/2019 | 9:47:29 AM | #28 | | | No | 967 | |
| Res_543158_10_07_19 #29.csv | 10/7/2019 | 9:47:55 AM | #29 | | | No | 967 | |
| Res_543158_10_07_19 #30.csv | 10/7/2019 | 9:49:19 AM | #30 | | | No | 967 | |
| Res_543158_10_07_19 #31.csv | 10/7/2019 | 9:50:56 AM | #31 | | | No | 967 | |
| Res_543158_10_07_19 #32.csv | 10/7/2019 | 9:51:21 AM | #32 | | | No | 967 | |
| Res_543158_10_07_19 #33.csv | 10/7/2019 | 9:52:47 AM | #33 | | | No | 967 | |
| Res_543158_10_07_19 #34.csv | 10/7/2019 | 9:59:41 AM | #34 | | | No | 967 | |
| Res_543158_10_07_19 #35.csv | 10/7/2019 | 10:00:39 AM | #35 | | | No | 967 | |
| Res_543158_10_07_19 #36.csv | 10/7/2019 | 10:02:26 AM | #36 | | | No | 967 | |
| Res_543158_10_07_19 #37.csv | 10/7/2019 | 10:06:30 AM | #37 | | | No | 967 | |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_10_07_19 #38.csv | 10/7/2019 | 10:10:20 AM | #38 | | | No | | 966 |
| Res_543158_10_07_19 #39.csv | 10/7/2019 | 10:13:35 AM | #39 | | | No | | 966 |
| Res_543158_10_07_19 #4.csv | 10/7/2019 | 8:49:44 AM | #4 | | | No | | 968 |
| Res_543158_10_07_19 #40.csv | 10/7/2019 | 10:15:06 AM | #40 | | | No | | 966 |
| Res_543158_10_07_19 #41.csv | 10/7/2019 | 10:24:05 AM | #41 | | | No | | 966 |
| Res_543158_10_07_19 #42.csv | 10/7/2019 | 10:27:48 AM | #42 | | | No | | 966 |
| Res_543158_10_07_19 #43.csv | 10/7/2019 | 10:33:40 AM | #43 | | | No | | 966 |
| Res_543158_10_07_19 #44.csv | 10/7/2019 | 10:36:38 AM | #44 | | | No | | 966 |
| Res_543158_10_07_19 #45.csv | 10/7/2019 | 10:38:18 AM | #45 | | | No | | 966 |
| Res_543158_10_07_19 #46.csv | 10/7/2019 | 10:41:10 AM | #46 | | | No | | 966 |
| Res_543158_10_07_19 #47.csv | 10/7/2019 | 10:45:08 AM | #47 | | | No | | 966 |
| Res_543158_10_07_19 #48.csv | 10/7/2019 | 10:50:22 AM | #48 | | | No | | 966 |
| Res_543158_10_07_19 #49.csv | 10/7/2019 | 10:56:29 AM | #49 | | | No | | 966 |
| Res_543158_10_07_19 #5.csv | 10/7/2019 | 8:49:58 AM | #5 | | | No | | |
| Res_543158_10_07_19 #50.csv | 10/7/2019 | 11:02:37 AM | #50 | | | No | | 966 |
| Res_543158_10_07_19 #52.csv | 10/7/2019 | 11:04:52 AM | #52 | | | No | | 966 |
| Res_543158_10_07_19 #53.csv | 10/7/2019 | 11:06:57 AM | #53 | | | No | | 965 |
| Res_543158_10_07_19 #54.csv | 10/7/2019 | 11:31:04 AM | #54 | | | No | | 966 |
| Res_543158_10_07_19 #55.csv | 10/7/2019 | 11:35:15 AM | #55 | | | No | | 966 |
| Res_543158_10_07_19 #56.csv | 10/7/2019 | 11:38:09 AM | #56 | | | No | | 965 |
| Res_543158_10_07_19 #57.csv | 10/7/2019 | 11:48:36 AM | #57 | | | No | | 966 |
| Res_543158_10_07_19 #58.csv | 10/7/2019 | 11:49:37 AM | #58 | | | No | | 966 |
| Res_543158_10_07_19 #59.csv | 10/7/2019 | 11:50:16 AM | #59 | | | No | | 966 |
| Res_543158_10_07_19 #6.csv | 10/7/2019 | 8:51:31 AM | #6 | | | No | | 968 |
| Res_543158_10_07_19 #60.csv | 10/7/2019 | 11:51:24 AM | #60 | | | No | | 966 |
| Res_543158_10_07_19 #61.csv | 10/7/2019 | 11:52:14 AM | #61 | | | No | | 966 |
| Res_543158_10_07_19 #62.csv | 10/7/2019 | 11:53:00 AM | #62 | | | No | | 966 |
| Res_543158_10_07_19 #63.csv | 10/7/2019 | 11:54:30 AM | #63 | | | No | | 966 |
| Res_543158_10_07_19 #64.csv | 10/7/2019 | 11:55:20 AM | #64 | | | No | | 966 |
| Res_543158_10_07_19 #65.csv | 10/7/2019 | 11:57:20 AM | #65 | | | No | | 966 |
| Res_543158_10_07_19 #66.csv | 10/7/2019 | 12:03:20 PM | #66 | | | No | | 966 |
| Res_543158_10_07_19 #67.csv | 10/7/2019 | 2:12:24 PM | #67 | | | No | | 964 |
| Res_543158_10_07_19 #68.csv | 10/7/2019 | 2:13:09 PM | #68 | | | No | | 963 |
| Res_543158_10_07_19 #69.csv | 10/7/2019 | 2:13:51 PM | #69 | | | No | | 963 |
| Res_543158_10_07_19 #7.csv | 10/7/2019 | 8:53:49 AM | #7 | | | No | | 968 |
| Res_543158_10_07_19 #70.csv | 10/7/2019 | 2:14:58 PM | #70 | | | No | | 963 |
| Res_543158_10_07_19 #71.csv | 10/7/2019 | 2:15:41 PM | #71 | | | No | | 963 |
| Res_543158_10_07_19 #72.csv | 10/7/2019 | 2:16:48 PM | #72 | | | No | | 964 |
| Res_543158_10_07_19 #73.csv | 10/7/2019 | 2:18:14 PM | #73 | | | No | | 964 |
| Res_543158_10_07_19 #74.csv | 10/7/2019 | 2:18:37 PM | #74 | | | No | | |
| Res_543158_10_07_19 #75.csv | 10/7/2019 | 2:19:15 PM | #75 | | | No | | 964 |
| Res_543158_10_07_19 #76.csv | 10/7/2019 | 2:32:16 PM | #76 | | | No | | 962 |
| Res_543158_10_07_19 #77.csv | 10/7/2019 | 2:34:27 PM | #77 | | | No | | 962 |
| Res_543158_10_07_19 #78.csv | 10/7/2019 | 2:40:41 PM | #78 | | | No | | 963 |
| Res_543158_10_07_19 #79.csv | 10/7/2019 | 2:40:48 PM | #79 | | | No | | |
| Res_543158_10_07_19 #8.csv | 10/7/2019 | 8:56:15 AM | #8 | | | No | | 968 |
| Res_543158_10_07_19 #80.csv | 10/7/2019 | 2:41:27 PM | #80 | | | No | | 963 |
| Res_543158_10_07_19 #81.csv | 10/7/2019 | 2:43:00 PM | #81 | | | No | | |
| Res_543158_10_07_19 #82.csv | 10/7/2019 | 2:43:20 PM | #82 | | | No | | 963 |
| Res_543158_10_07_19 #83.csv | 10/7/2019 | 2:43:55 PM | #83 | | | No | | 963 |
| Res_543158_10_07_19 #84.csv | 10/7/2019 | 3:14:53 PM | #84 | | | No | | 962 |
| Res_543158_10_07_19 #85.csv | 10/7/2019 | 3:15:39 PM | #85 | | | No | | 962 |
| Res_543158_10_07_19 #86.csv | 10/7/2019 | 3:16:27 PM | #86 | | | No | | 962 |
| Res_543158_10_07_19 #87.csv | 10/7/2019 | 3:33:49 PM | #87 | | | No | | 961 |
| Res_543158_10_07_19 #88.csv | 10/7/2019 | 3:34:31 PM | #88 | | | No | | 961 |
| Res_543158_10_07_19 #89.csv | 10/7/2019 | 3:48:51 PM | #89 | | | No | | 961 |
| Res_543158_10_07_19 #9.csv | 10/7/2019 | 8:56:43 AM | #9 | | | No | | 968 |
| Res_543158_10_07_19 #90.csv | 10/7/2019 | 3:50:17 PM | #90 | | | No | | 962 |
| Res_543158_10_07_19 #91.csv | 10/7/2019 | 3:53:12 PM | #91 | | | No | | 962 |
| Res_543158_10_07_19 #92.csv | 10/7/2019 | 3:57:14 PM | #92 | | | No | | 962 |
| Res_543158_10_07_19 #93.csv | 10/7/2019 | 4:03:41 PM | #93 | | | No | | 962 |
| Res_543158_10_07_19 #94.csv | 10/7/2019 | 4:09:24 PM | #94 | | | No | | 961 |
| Res_543158_10_07_19 #95.csv | 10/7/2019 | 4:13:34 PM | #95 | | | No | | 961 |
| Res_543158_10_07_19 #96.csv | 10/7/2019 | 4:15:11 PM | #96 | | | No | | 961 |
| Res_543158_10_07_19 #97.csv | 10/7/2019 | 4:15:56 PM | #97 | | | No | | |
| Res_543158_10_07_19 #98.csv | 10/7/2019 | 4:17:26 PM | #98 | | | No | | 961 |
| Res_543158_10_07_19 #99.csv | 10/7/2019 | 4:23:16 PM | #99 | | | No | | 961 |
| Res_543158_10_08_19 #1.csv | 10/8/2019 | 7:22:48 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_10_08_19 #10.csv | 10/8/2019 | 9:01:20 AM | #10 | | | No | | 961 |
| Res_543158_10_08_19 #11.csv | 10/8/2019 | 9:05:55 AM | #11 | | | No | | 961 |
| Res_543158_10_08_19 #12.csv | 10/8/2019 | 9:09:33 AM | #12 | | | No | | 960 |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_10_08_19 #13.csv | 10/8/2019 | 9:11:11 AM | #13 | | | No | | 960 |
| Res_543158_10_08_19 #14.csv | 10/8/2019 | 9:13:59 AM | #14 | | | No | | 960 |
| Res_543158_10_08_19 #15.csv | 10/8/2019 | 9:17:19 AM | #15 | | | No | | 960 |
| Res_543158_10_08_19 #16.csv | 10/8/2019 | 9:19:44 AM | #16 | | | No | | 960 |
| Res_543158_10_08_19 #17.csv | 10/8/2019 | 9:23:23 AM | #17 | | | No | | |
| Res_543158_10_08_19 #18.csv | 10/8/2019 | 9:24:03 AM | #18 | | | No | | 960 |
| Res_543158_10_08_19 #19.csv | 10/8/2019 | 9:36:21 AM | #19 | | | No | | 960 |
| Res_543158_10_08_19 #2.csv | 10/8/2019 | 8:07:31 AM | #2 | | | No | | 961 |
| Res_543158_10_08_19 #20.csv | 10/8/2019 | 9:38:09 AM | #20 | | | No | | 961 |
| Res_543158_10_08_19 #21.csv | 10/8/2019 | 9:41:45 AM | #21 | | | No | | 961 |
| Res_543158_10_08_19 #22.csv | 10/8/2019 | 9:43:10 AM | #22 | | | No | | |
| Res_543158_10_08_19 #23.csv | 10/8/2019 | 9:44:37 AM | #23 | | | No | | 961 |
| Res_543158_10_08_19 #24.csv | 10/8/2019 | 9:48:12 AM | #24 | | | No | | 961 |
| Res_543158_10_08_19 #25.csv | 10/8/2019 | 9:53:04 AM | #25 | | | No | | 961 |
| Res_543158_10_08_19 #26.csv | 10/8/2019 | 9:56:31 AM | #26 | | | No | | 961 |
| Res_543158_10_08_19 #27.csv | 10/8/2019 | 9:59:10 AM | #27 | | | No | | 961 |
| Res_543158_10_08_19 #28.csv | 10/8/2019 | 10:01:35 AM | #28 | | | No | | 961 |
| Res_543158_10_08_19 #29.csv | 10/8/2019 | 10:04:27 AM | #29 | | | No | | 961 |
| Res_543158_10_08_19 #3.csv | 10/8/2019 | 8:21:14 AM | #3 | | | No | | 960 |
| Res_543158_10_08_19 #30.csv | 10/8/2019 | 10:08:04 AM | #30 | | | No | | 961 |
| Res_543158_10_08_19 #31.csv | 10/8/2019 | 12:46:14 PM | #31 | | | No | | 966 |
| Res_543158_10_08_19 #32.csv | 10/8/2019 | 12:47:19 PM | #32 | | | No | | 966 |
| Res_543158_10_08_19 #33.csv | 10/8/2019 | 12:48:15 PM | #33 | | | No | | 966 |
| Res_543158_10_08_19 #34.csv | 10/8/2019 | 12:49:06 PM | #34 | | | No | | 966 |
| Res_543158_10_08_19 #35.csv | 10/8/2019 | 1:05:48 PM | #35 | | | No | | 966 |
| Res_543158_10_08_19 #36.csv | 10/8/2019 | 1:06:31 PM | #36 | | | No | | 966 |
| Res_543158_10_08_19 #37.csv | 10/8/2019 | 1:07:29 PM | #37 | | | No | | 967 |
| Res_543158_10_08_19 #38.csv | 10/8/2019 | 1:07:38 PM | #38 | | | No | | |
| Res_543158_10_08_19 #39.csv | 10/8/2019 | 1:08:15 PM | #39 | | | No | | 967 |
| Res_543158_10_08_19 #4.csv | 10/8/2019 | 8:22:53 AM | #4 | | | No | | 960 |
| Res_543158_10_08_19 #40.csv | 10/8/2019 | 1:08:55 PM | #40 | | | No | | 967 |
| Res_543158_10_08_19 #41.csv | 10/8/2019 | 1:09:35 PM | #41 | | | No | | 967 |
| Res_543158_10_08_19 #42.csv | 10/8/2019 | 1:10:18 PM | #42 | | | No | | 967 |
| Res_543158_10_08_19 #43.csv | 10/8/2019 | 1:11:08 PM | #43 | | | No | | 967 |
| Res_543158_10_08_19 #44.csv | 10/8/2019 | 1:11:58 PM | #44 | | | No | | 967 |
| Res_543158_10_08_19 #45.csv | 10/8/2019 | 1:15:09 PM | #45 | | | No | | 967 |
| Res_543158_10_08_19 #46.csv | 10/8/2019 | 1:15:58 PM | #46 | | | No | | 967 |
| Res_543158_10_08_19 #47.csv | 10/8/2019 | 2:30:17 PM | #47 | | | No | | 967 |
| Res_543158_10_08_19 #48.csv | 10/8/2019 | 2:31:03 PM | #48 | | | No | | 967 |
| Res_543158_10_08_19 #49.csv | 10/8/2019 | 2:31:54 PM | #49 | | | No | | 967 |
| Res_543158_10_08_19 #5.csv | 10/8/2019 | 8:27:37 AM | #5 | | | No | | 960 |
| Res_543158_10_08_19 #51.csv | 10/8/2019 | 2:32:58 PM | #51 | | | No | | 967 |
| Res_543158_10_08_19 #52.csv | 10/8/2019 | 3:19:09 PM | #52 | | | No | | 967 |
| Res_543158_10_08_19 #53.csv | 10/8/2019 | 3:19:18 PM | #53 | | | No | | |
| Res_543158_10_08_19 #54.csv | 10/8/2019 | 3:19:56 PM | #54 | | | No | | 967 |
| Res_543158_10_08_19 #55.csv | 10/8/2019 | 3:20:38 PM | #55 | | | No | | 967 |
| Res_543158_10_08_19 #56.csv | 10/8/2019 | 3:21:46 PM | #56 | | | No | | 967 |
| Res_543158_10_08_19 #57.csv | 10/8/2019 | 3:22:25 PM | #57 | | | No | | 967 |
| Res_543158_10_08_19 #58.csv | 10/8/2019 | 3:23:15 PM | #58 | | | No | | 967 |
| Res_543158_10_08_19 #59.csv | 10/8/2019 | 3:23:54 PM | #59 | | | No | | 967 |
| Res_543158_10_08_19 #6.csv | 10/8/2019 | 8:35:14 AM | #6 | | | No | | 960 |
| Res_543158_10_08_19 #60.csv | 10/8/2019 | 3:24:51 PM | #60 | | | No | | 967 |
| Res_543158_10_08_19 #61.csv | 10/8/2019 | 3:25:38 PM | #61 | | | No | | 967 |
| Res_543158_10_08_19 #62.csv | 10/8/2019 | 3:26:45 PM | #62 | | | No | | 967 |
| Res_543158_10_08_19 #63.csv | 10/8/2019 | 3:27:43 PM | #63 | | | No | | 967 |
| Res_543158_10_08_19 #64.csv | 10/8/2019 | 4:29:46 PM | #64 | | | No | | 967 |
| Res_543158_10_08_19 #65.csv | 10/8/2019 | 4:30:39 PM | #65 | | | No | | 967 |
| Res_543158_10_08_19 #7.csv | 10/8/2019 | 8:38:01 AM | #7 | | | No | | 960 |
| Res_543158_10_08_19 #8.csv | 10/8/2019 | 8:47:02 AM | #8 | | | No | | 960 |
| Res_543158_10_08_19 #9.csv | 10/8/2019 | 8:49:50 AM | #9 | | | No | | 960 |
| Res_543158_10_09_19 #1.csv | 10/9/2019 | 7:53:45 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_10_09_19 #10.csv | 10/9/2019 | 10:23:08 AM | #10 | | | No | | 983 |
| Res_543158_10_09_19 #11.csv | 10/9/2019 | 10:23:56 AM | #11 | | | No | | 983 |
| Res_543158_10_09_19 #12.csv | 10/9/2019 | 10:24:02 AM | #12 | | | No | | |
| Res_543158_10_09_19 #13.csv | 10/9/2019 | 10:24:39 AM | #13 | | | No | | 983 |
| Res_543158_10_09_19 #14.csv | 10/9/2019 | 10:37:03 AM | #14 | | | No | | 983 |
| Res_543158_10_09_19 #15.csv | 10/9/2019 | 10:37:42 AM | #15 | | | No | | 983 |
| Res_543158_10_09_19 #16.csv | 10/9/2019 | 10:38:18 AM | #16 | | | No | | 984 |
| Res_543158_10_09_19 #17.csv | 10/9/2019 | 10:39:06 AM | #17 | | | No | | 984 |
| Res_543158_10_09_19 #18.csv | 10/9/2019 | 10:39:43 AM | #18 | | | No | | 984 |
| Res_543158_10_09_19 #19.csv | 10/9/2019 | 10:40:24 AM | #19 | | | No | | 984 |

| Source.Name | Date | Time | Reading | Peak 2 | Cal Check Status | Collimated | Ambient Pressure | PD Concentration |
|---|---|---|---|---|---|---|---|---|
| Res_543158_10_09_19 #2.csv | 10/9/2019 | 8:36:54 AM | #2 | | | No | | 981 |
| Res_543158_10_09_19 #20.csv | 10/9/2019 | 10:41:04 AM | #20 | | | No | | 984 |
| Res_543158_10_09_19 #21.csv | 10/9/2019 | 10:43:51 AM | #21 | | | No | | 984 |
| Res_543158_10_09_19 #22.csv | 10/9/2019 | 10:46:04 AM | #22 | | | No | | 984 |
| Res_543158_10_09_19 #23.csv | 10/9/2019 | 10:46:46 AM | #23 | | | No | | 984 |
| Res_543158_10_09_19 #24.csv | 10/9/2019 | 10:46:55 AM | #24 | | | No | | |
| Res_543158_10_09_19 #25.csv | 10/9/2019 | 10:47:32 AM | #25 | | | No | | 984 |
| Res_543158_10_09_19 #26.csv | 10/9/2019 | 12:03:29 PM | #26 | | | No | | 984 |
| Res_543158_10_09_19 #27.csv | 10/9/2019 | 12:36:49 PM | #27 | | | No | | 984 |
| Res_543158_10_09_19 #28.csv | 10/9/2019 | 12:37:29 PM | #28 | | | No | | 984 |
| Res_543158_10_09_19 #29.csv | 10/9/2019 | 12:38:13 PM | #29 | | | No | | 984 |
| Res_543158_10_09_19 #3.csv | 10/9/2019 | 8:37:31 AM | #3 | | | No | | 981 |
| Res_543158_10_09_19 #30.csv | 10/9/2019 | 2:42:59 PM | #30 | | | No | | |
| Res_543158_10_09_19 #31.csv | 10/9/2019 | 2:43:37 PM | #31 | | | No | | 983 |
| Res_543158_10_09_19 #32.csv | 10/9/2019 | 2:44:17 PM | #32 | | | No | | 983 |
| Res_543158_10_09_19 #33.csv | 10/9/2019 | 2:44:58 PM | #33 | | | No | | 983 |
| Res_543158_10_09_19 #34.csv | 10/9/2019 | 2:45:38 PM | #34 | | | No | | 983 |
| Res_543158_10_09_19 #35.csv | 10/9/2019 | 2:46:23 PM | #35 | | | No | | 983 |
| Res_543158_10_09_19 #36.csv | 10/9/2019 | 2:50:06 PM | #36 | | | No | | 983 |
| Res_543158_10_09_19 #37.csv | 10/9/2019 | 2:51:28 PM | #37 | | | No | | 983 |
| Res_543158_10_09_19 #38.csv | 10/9/2019 | 2:55:04 PM | #38 | | | No | | 983 |
| Res_543158_10_09_19 #39.csv | 10/9/2019 | 2:55:57 PM | #39 | | | No | | 983 |
| Res_543158_10_09_19 #4.csv | 10/9/2019 | 8:38:11 AM | #4 | | | No | | 981 |
| Res_543158_10_09_19 #40.csv | 10/9/2019 | 2:57:19 PM | #40 | | | No | | 983 |
| Res_543158_10_09_19 #41.csv | 10/9/2019 | 2:58:34 PM | #41 | | | No | | 983 |
| Res_543158_10_09_19 #42.csv | 10/9/2019 | 2:59:08 PM | #42 | | | No | | 983 |
| Res_543158_10_09_19 #43.csv | 10/9/2019 | 2:59:46 PM | #43 | | | No | | 983 |
| Res_543158_10_09_19 #44.csv | 10/9/2019 | 3:00:31 PM | #44 | | | No | | 983 |
| Res_543158_10_09_19 #45.csv | 10/9/2019 | 3:02:43 PM | #45 | | | No | | |
| Res_543158_10_09_19 #46.csv | 10/9/2019 | 3:03:19 PM | #46 | | | No | | 983 |
| Res_543158_10_09_19 #47.csv | 10/9/2019 | 3:04:18 PM | #47 | | | No | | 983 |
| Res_543158_10_09_19 #48.csv | 10/9/2019 | 3:05:29 PM | #48 | | | No | | 983 |
| Res_543158_10_09_19 #5.csv | 10/9/2019 | 8:38:52 AM | #5 | | | No | | 981 |
| Res_543158_10_09_19 #50.csv | 10/9/2019 | 3:07:48 PM | #50 | | | No | | 983 |
| Res_543158_10_09_19 #51.csv | 10/9/2019 | 3:32:25 PM | #51 | | | No | | 983 |
| Res_543158_10_09_19 #52.csv | 10/9/2019 | 3:33:21 PM | #52 | | | No | | 983 |
| Res_543158_10_09_19 #53.csv | 10/9/2019 | 3:34:15 PM | #53 | | | No | | 983 |
| Res_543158_10_09_19 #54.csv | 10/9/2019 | 3:34:56 PM | #54 | | | No | | 983 |
| Res_543158_10_09_19 #55.csv | 10/9/2019 | 3:35:39 PM | #55 | | | No | | 983 |
| Res_543158_10_09_19 #56.csv | 10/9/2019 | 4:00:38 PM | #56 | | | No | | 983 |
| Res_543158_10_09_19 #57.csv | 10/9/2019 | 4:03:21 PM | #57 | | | No | | 983 |
| Res_543158_10_09_19 #58.csv | 10/9/2019 | 4:03:58 PM | #58 | | | No | | 983 |
| Res_543158_10_09_19 #59.csv | 10/9/2019 | 4:06:57 PM | #59 | | | No | | |
| Res_543158_10_09_19 #6.csv | 10/9/2019 | 8:39:27 AM | #6 | | | No | | 981 |
| Res_543158_10_09_19 #60.csv | 10/9/2019 | 4:07:33 PM | #60 | | | No | | 983 |
| Res_543158_10_09_19 #61.csv | 10/9/2019 | 4:31:38 PM | #61 | | | No | | 983 |
| Res_543158_10_09_19 #62.csv | 10/9/2019 | 4:31:48 PM | #62 | | | No | | |
| Res_543158_10_09_19 #63.csv | 10/9/2019 | 4:31:56 PM | #63 | | | No | | 983 |
| Res_543158_10_09_19 #64.csv | 10/9/2019 | 4:32:30 PM | #64 | | | No | | 983 |
| Res_543158_10_09_19 #65.csv | 10/9/2019 | 4:33:08 PM | #65 | | | No | | 983 |
| Res_543158_10_09_19 #66.csv | 10/9/2019 | 4:34:33 PM | #66 | | | No | | 983 |
| Res_543158_10_09_19 #67.csv | 10/9/2019 | 4:36:14 PM | #67 | | | No | | 983 |
| Res_543158_10_09_19 #68.csv | 10/9/2019 | 4:37:18 PM | #68 | | | No | | 983 |
| Res_543158_10_09_19 #7.csv | 10/9/2019 | 10:21:21 AM | #7 | | | No | | 983 |
| Res_543158_10_09_19 #8.csv | 10/9/2019 | 10:21:59 AM | #8 | | | No | | 983 |
| Res_543158_10_09_19 #9.csv | 10/9/2019 | 10:22:28 AM | #9 | | | No | | 983 |
| Res_543158_10_10_19 #1.csv | 10/10/2019 | 7:44:18 AM | #1 | | 871 Passed | Unknown | | |
| Res_543158_10_10_19 #10.csv | 10/10/2019 | 9:10:15 AM | #10 | | | No | | |
| Res_543158_10_10_19 #11.csv | 10/10/2019 | 9:12:05 AM | #11 | | | No | | 989 |
| Res_543158_10_10_19 #12.csv | 10/10/2019 | 9:12:43 AM | #12 | | | No | | 989 |
| Res_543158_10_10_19 #2.csv | 10/10/2019 | 9:09:34 AM | #2 | | | No | | |
| Res_543158_10_10_19 #3.csv | 10/10/2019 | 9:09:42 AM | #3 | | | No | | |
| Res_543158_10_10_19 #4.csv | 10/10/2019 | 9:09:46 AM | #4 | | | No | | |
| Res_543158_10_10_19 #5.csv | 10/10/2019 | 9:09:51 AM | #5 | | | No | | |
| Res_543158_10_10_19 #6.csv | 10/10/2019 | 9:09:55 AM | #6 | | | No | | |
| Res_543158_10_10_19 #7.csv | 10/10/2019 | 9:10:03 AM | #7 | | | No | | |
| Res_543158_10_10_19 #8.csv | 10/10/2019 | 9:10:08 AM | #8 | | | No | | |
| Res_543158_10_10_19 #9.csv | 10/10/2019 | 9:10:12 AM | #9 | | | No | | |

# APPENDIX C
## Analytical Laboratory Reports and Data Validation Documentation

GeoEngineers

1101 Fawcett Avenue, Suite 200, Tacoma, Washington 98402, Telephone: 253.383.4940, Fax: 253.383.4923 www.geoengineers.com

# Data Validation Report

**Project:** City of Wenatchee – Saddle Rock Regional Park IRA Construction, Phase I
October 2019 Soil Samples

**GEI File No:** 4296-008-01

**Date:** November 17, 2019

This report documents the results of a United States Environmental Protection Agency (EPA)-defined Stage 2B data validation (EPA Document 540-R-08-005; EPA 2009) of analytical data from the analyses of soil samples collected as part of the October 2019 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Saddle Rock Natural Area site located in Wenatchee, Washington.

## OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 2017) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Quality Assurance Project Plan (QAPP), Appendix A of the Sampling and Analysis Plan, Interim Remedial Action Design and Remedial Action (GeoEngineers 2019), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples
- Laboratory/Field Duplicates
- Internal Standards
- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits

## VALIDATED SAMPLE DELIVERY GROUPS

This data validation included review of the sample delivery groups (SDGs) listed below in Table C-1.

**TABLE C-1. SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS**

| Laboratory SDG | Samples Validated |
|---|---|
| 1910-077 | SR03-CS-01-02, SR03-CS-02-02, SR03-CS-03-02, SR03-CS-04-02, SR03-CS-05-02, SR03-CS-06-02, SR03-CS-07-02, SR03-CS-08-02, SR03-CS-09-02 |
| 1910-112 | SR08-CS-01-02, SR08-CS-02-02, SR08-CS-03-02, SR08-CS-04-02, SR08-CS-05-02, DUP-1 |
| 1910-222 | SR01-US-03-2-4"-CI, SR02-US-01-0-2"-CI, SR03-CS-04-02-CI, SR03-US-05-4-6"-CI, SR04-US-03-4-6"-CI, SR05-US-04-4-6"-CI, SR08-US-04-2-4"-CI |
| 1910-363 | SR02-CS-01-02, SR02-CS-02-02, SR02-CS-03-02, SR02-CS-04-02, SR02-CS-05-02, SR02-CS-06-02, SR02-CS-07-02, SR02-CS-08-02, SR02-CS-09-02, SR02-CS-10-02, SR02-CS-11-02, SR02-CS-12-02 |
| 1910-388 | SR01-CS-01-02, SR01-CS-02-02, SR01-CS-03-02, SR01-CS-04-02, SR01-CS-05-02, SR01-CS-06-02, DUP-2 |

## CHEMICAL ANALYSIS PERFORMED

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the samples using the following methods:

- Total Metals by Methods EPA6010D, EPA6020B, or EPA7471B

## DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below.

### Data Package Completeness

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

### Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the laboratory, with the following exception:

SDG 1910-222: The laboratory noted that for Sample SR03-US-05-4-6"-CI the sample ID was listed as SR03-US-05-4-6"-CI on the COC and SR03-US-01-0-2"-CI on the sample vial. The sample was logged according to the sample vial and sample ID was revised on the COC by the laboratory at the request of GeoEngineers.

### Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for each analysis. The sample coolers arrived at the laboratory at the appropriate temperatures of between 2 and 6 degrees Celsius.

### Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For the sample batches, method blanks for the applicable methods were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in the method blanks.

### Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits, with the following exceptions:

**SDG 1910-077:** (Total Metals) The laboratory performed two MS/MSD sample sets on Sample SR03-CS-01-02. The percent recovery for total iron was less than the control limits in the MS digested on 10/10/2019 and the percent recovery for total manganese was less than the control limits in the MS and MSD digested on 10/9/2019. The parent sample concentrations for these target analytes were greater than four times the amount spiked into the sample; therefore, no qualifications were required.

**SDG 1910-112:** (Total Metals) The laboratory performed two MS/MSD sample sets with QC outliers; however, they were performed on a sample from a different SDG and are not applicable to the field samples within this SDG; therefore, no action was required.

**SDG 1910-222:** (Total Metals) The laboratory performed an MS/MSD sample set on Sample SR01-US-03-2-4"-CI. The RPD for total iron was greater than the control limit in the MS/MSD sample set digested on 10/18/2019. The positive result for this target analyte was qualified as estimated (J) in Sample SR01-US-03-2-4"-CI.

Additionally, in the same MS/MSD sample set, the percent recoveries for total iron and total manganese were greater than the control limits in the MS and MSD. The parent sample concentrations for these target analytes were greater than four times the amount spiked into the sample; therefore, no qualifications were required.

**SDG 1910-363:** (Total Metals) The laboratory performed an MS/MSD sample set on Sample SR02-CS-02-02. The percent recoveries for total iron and total manganese were outside the control limits in the MS/MSD sample set digested on 10/28/2019. The parent sample concentrations for these target analytes were greater than four times the amount spiked into the sample; therefore, no qualifications were required.

**SDG 1910-388:** (Total Metals) The laboratory performed an MS/MSD sample set on Sample SR01-CS-04-02. The percent recoveries for total iron and total manganese were outside the control limits

in the MS/MSD sample set digested on 10/31/2019. The parent sample concentrations for these target analytes were greater than four times the amount spiked into the sample; therefore, no qualifications were required.

### Laboratory Control Samples

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, the LCS control limits for accuracy are usually more rigorous than for MS analyses. Additionally, data qualification based on LCS analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent recovery control limits are specified in the laboratory documents.

The laboratory performed MS/MSD sample sets in lieu of an LCS analysis.

### Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limits are specified in the laboratory documents. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exceptions:

**SDG 1910-222:** (Total Metals) The laboratory performed a laboratory duplicate sample on Sample SR01-US-03-2-4"-CI. The RPD values for total arsenic, total iron, total lead, and total manganese were greater than the control limit in the laboratory duplicate digested on 10/18/2019. The positive results for these target analytes were qualified as estimated (J) in Sample SR01-US-03-2-4"-CI.

### Field Duplicates (FDs)

In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed sample batches. The duplicate samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for soil samples is 20 percent.

**SDG 1910-112:** One field duplicate sample pair, SR08-CS-05-02 and DUP-1, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair, with the exception of total mercury. The positive results for this target analyte were qualified as estimated (J) in these samples.

**SDG 1910-388:** One field duplicate sample pair, SR01-CS-06-02 and DUP-2, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair, with the exception of total arsenic, total barium, total manganese, total mercury, and total silver. The positive results for these target analytes were qualified as estimated (J) in these samples.

### Internal Standards (Low Resolution Mass Spectrometry)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standards should be analyzed at the beginning of a 12-hour sample run. All internal standard

recoveries were within the internal laboratory control limits or the control limits stated in the National Functional Guidelines (EPA 2017).

### Initial Calibrations (ICALs)

All initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. All relative standard deviation (%RSD) and relative response factors (RRF) were within the internal laboratory control limits or the control limits stated in the National Functional Guidelines (EPA 2017).

### Continuing Calibrations (CCALs)

All continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. All percent difference (%D) and relative response factors (RRF) were within the internal laboratory control limits or the control limits stated in the National Functional Guidelines (EPA 2017).

### Reporting Limits

The contract required quantitation limits (CRQL) were met by the laboratory for the target analytes throughout this sampling event.

## OVERALL ASSESSMENT

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the MS/MSD percent recovery values, with the exceptions noted above. Precision was acceptable, as demonstrated by the MS/MSD and laboratory/field duplicate RPD values, with the exceptions noted above.

The data are acceptable for the intended use, with the following qualifications listed below in Table C-2.

**TABLE C-2. SUMMARY OF QUALIFIED SAMPLES**

| Sample ID | Analyte | Qualifier | Reason |
|---|---|---|---|
| SR01-CS-06-02 | Total arsenic | J | Field Duplicate Precision |
| | Total barium | J | Field Duplicate Precision |
| | Total manganese | J | Field Duplicate Precision |
| | Total mercury | J | Field Duplicate Precision |
| | Total silver | J | Field Duplicate Precision |
| DUP-2 | Total arsenic | J | Field Duplicate Precision |
| | Total barium | J | Field Duplicate Precision |
| | Total manganese | J | Field Duplicate Precision |
| | Total mercury | J | Field Duplicate Precision |
| | Total silver | J | Field Duplicate Precision |
| SR01-US-03-2-4"-CI | Total arsenic | J | Laboratory Duplicate Precision |
| | Total iron | J | MS/MSD Precision/Laboratory Duplicate Precision |
| | Total lead | J | Laboratory Duplicate Precision |
| | Total manganese | J | Laboratory Duplicate Precision |
| SR08-CS-05-02 | Total mercury | J | Field Duplicate Precision |
| DUP-1 | Total mercury | J | Field Duplicate Precision |

## REFERENCES

U.S. Environmental Protection Agency (EPA). "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

U.S. Environmental Protection Agency (EPA). "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review," EPA-540-R-2017-001. January 2017.

GeoEngineers, Inc., "Sampling and Analysis Plan, Interim Remedial Action Design and Remedial Action," prepared for City of Wenatchee. February 20, 2019.

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 10, 2019

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 4296-008
Laboratory Reference No. 1910-077

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on October 8, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**Case Narrative**

Samples were collected on October 4 and 7, 2019 and received by the laboratory on October 8, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Total Metals EPA 6010D/6020B/7471B Analysis

Due to the high concentration of Iron and Manganese in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery for Iron was 97%. The Spike Blank recovery for Manganese was 98%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**ANALYTICAL REPORT FOR SAMPLES**

| Client ID | Laboratory ID | Matrix | Date Sampled | Date Received | Notes |
|---|---|---|---|---|---|
| SR03-CS-01-02 | 10-077-01 | Soil | 10-4-19 | 10-8-19 | |
| SR03-CS-02-02 | 10-077-02 | Soil | 10-4-19 | 10-8-19 | |
| SR03-CS-03-02 | 10-077-03 | Soil | 10-4-19 | 10-8-19 | |
| SR03-CS-04-02 | 10-077-04 | Soil | 10-4-19 | 10-8-19 | |
| SR03-CS-05-02 | 10-077-05 | Soil | 10-7-19 | 10-8-19 | |
| SR03-CS-06-02 | 10-077-06 | Soil | 10-7-19 | 10-8-19 | |
| SR03-CS-07-02 | 10-077-07 | Soil | 10-7-19 | 10-8-19 | |
| SR03-CS-08-02 | 10-077-08 | Soil | 10-7-19 | 10-8-19 | |
| SR03-CS-09-02 | 10-077-09 | Soil | 10-7-19 | 10-8-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR03-CS-01-02** | | | | | |
| Laboratory ID: | 10-077-01 | | | | | |
| Arsenic | **40** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **78** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **13000** | 130 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **7.0** | 0.26 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **390** | 26 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.043** | 0.026 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.33** | 0.26 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **4.6** | 0.65 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR03-CS-02-02** | | | | | |
| Laboratory ID: | 10-077-02 | | | | | |
| Arsenic | **36** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **99** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **21000** | 57 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **6.2** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **420** | 29 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.035** | 0.029 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.29** | 0.29 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **2.5** | 0.72 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR03-CS-03-02** | | | | | |
| Laboratory ID: | 10-077-03 | | | | | |
| Arsenic | **67** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **51** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **12000** | 56 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **5.4** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **170** | 28 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.28** | 0.028 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.70** | 0.56 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **8.7** | 0.70 | EPA 6020B | 10-9-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR03-CS-04-02** | | | | | |
| Laboratory ID: | 10-077-04 | | | | | |
| Arsenic | **52** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **29** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **5300** | 14 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **2.4** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **1.7** | 0.54 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **2.4** | 0.14 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **1.5** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **7.5** | 0.68 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR03-CS-05-02** | | | | | |
| Laboratory ID: | 10-077-05 | | | | | |
| Arsenic | **91** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **75** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **11000** | 54 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **5.8** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **160** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.070** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **1.2** | 0.54 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **9.2** | 0.67 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR03-CS-06-02** | | | | | |
| Laboratory ID: | 10-077-06 | | | | | |
| Arsenic | **62** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **110** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **22000** | 53 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **6.4** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **310** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.068** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.66** | 0.53 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **3.3** | 0.67 | EPA 6020B | 10-9-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR03-CS-07-02** | | | | | |
| Laboratory ID: | 10-077-07 | | | | | |
| Arsenic | **81** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **93** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **18000** | 54 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **6.9** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **310** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.14** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.51** | 0.27 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **2.6** | 0.67 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR03-CS-08-02** | | | | | |
| Laboratory ID: | 10-077-08 | | | | | |
| Arsenic | **64** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **110** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **27000** | 52 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **7.0** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **480** | 26 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.16** | 0.026 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.50** | 0.26 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **2.2** | 0.65 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR03-CS-09-02** | | | | | |
| Laboratory ID: | 10-077-09 | | | | | |
| Arsenic | **52** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **94** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **28000** | 54 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **7.2** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **600** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.13** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.46** | 0.27 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **1.8** | 0.67 | EPA 6020B | 10-9-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB1009SM1 | | | | | |
| Arsenic | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Lead | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Selenium | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Laboratory ID: | MB1009S1 | | | | | |
| Mercury | **ND** | 0.025 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Laboratory ID: | MB1009SH1 | | | | | |
| Manganese | **ND** | 0.50 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Laboratory ID: | MB1009SH1 | | | | | |
| Silver | **ND** | 0.63 | EPA 6020B | 10-9-19 | 10-10-19 | |
| Laboratory ID: | MB1010SH1 | | | | | |
| Iron | **ND** | 2.5 | EPA 6010D | 10-10-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | | Spike Level | | Source Result | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DUPLICATE** | | | | | | | | | | | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Arsenic | **38.3** | **34.5** | NA | NA | | NA | | NA | 10 | 20 | |
| Barium | **75.3** | **69.0** | NA | NA | | NA | | NA | 9 | 20 | |
| Lead | **6.75** | **6.50** | NA | NA | | NA | | NA | 4 | 20 | |
| Selenium | **0.315** | **0.288** | NA | NA | | NA | | NA | 9 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Mercury | **0.0412** | **0.0663** | NA | NA | | NA | | NA | 47 | 20 | C |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Manganese | **380** | **375** | NA | NA | | NA | | NA | 1 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Silver | **4.46** | **5.03** | NA | NA | | NA | | NA | 12 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Iron | **12300** | **13900** | NA | NA | | NA | | NA | 12 | 20 | |
| **MATRIX SPIKES** | | | | | | | | | | | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Arsenic | **131** | **126** | 100 | 100 | 38.3 | **93** | **87** | 75-125 | 4 | 20 | |
| Barium | **170** | **166** | 100 | 100 | 75.3 | **95** | **91** | 75-125 | 3 | 20 | |
| Lead | **234** | **235** | 250 | 250 | 6.75 | **91** | **91** | 75-125 | 1 | 20 | |
| Selenium | **93.8** | **92.5** | 100 | 100 | 0.315 | **93** | **92** | 75-125 | 1 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Mercury | **0.547** | **0.561** | 0.500 | 0.500 | 0.0412 | **101** | **104** | 80-120 | 3 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Manganese | **390** | **375** | 25.0 | 25.0 | 380 | **40** | **-20** | 75-125 | 4 | 20 | A |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Silver | **25.8** | **24.6** | 25.0 | 25.0 | 4.46 | **85** | **81** | 75-125 | 4 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Iron | **11000** | **13400** | 1000 | 1000 | 12300 | **-129** | **110** | 75-125 | 20 | 20 | A |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | Spike Level | Source Result | Percent Recovery | Recovery Limits | Flags |
|---|---|---|---|---|---|---|
| **SPIKE BLANK** | | | | | | |
| Laboratory ID: | SB1009SM1 | | | | | |
| Arsenic | **94.3** | 100 | N/A | **94** | 80-120 | |
| Barium | **97.3** | 100 | N/A | **97** | 80-120 | |
| Lead | **239** | 250 | N/A | **96** | 80-120 | |
| Selenium | **108** | 100 | N/A | **108** | 80-120 | |
| Laboratory ID: | SB1009S1 | | | | | |
| Mercury | **0.518** | 0.500 | N/A | **104** | 80-120 | |
| Laboratory ID: | SB1009SH1 | | | | | |
| Manganese | **24.4** | 25.0 | N/A | **98** | 80-120 | |
| Laboratory ID: | SB1009SH1 | | | | | |
| Silver | **20.6** | 25.0 | N/A | **83** | 80-120 | |
| Laboratory ID: | SB1010SH1 | | | | | |
| Iron | **975** | 1000 | N/A | **98** | 80-120 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | ICV100919X | 0.0500 | 0.0506 | -1.2 | +/- 10% |
| Barium | ICV100919X | 0.0500 | 0.0515 | -3.0 | +/- 10% |
| Iron | ICV101019P | 1.00 | 1.03 | -3.0 | +/- 10% |
| Lead | ICV100919X | 0.0500 | 0.0517 | -3.4 | +/- 10% |
| Manganese | ICV100919P | 1.00 | 1.04 | -4.0 | +/- 10% |
| Mercury | ICV100919Y | 0.00500 | 0.00531 | -6.2 | +/- 10% |
| Selenium | ICV100919X | 0.0500 | 0.0525 | -5.0 | +/- 10% |
| Silver | ICV101019X | 0.0500 | 0.0497 | 0.60 | +/- 10% |
| Arsenic | LLV100919X | 0.000500 | 0.000537 | -7.4 | +/- 20% |
| Barium | LLV100919X | 0.000500 | 0.000492 | 1.6 | +/- 20% |
| Iron | LLV101019P | 0.0500 | 0.0530 | -6.0 | +/- 20% |
| Lead | LLV100919X | 0.000500 | 0.000476 | 4.8 | +/- 20% |
| Manganese | LLV100919P | 0.0100 | 0.0108 | -8.0 | +/- 20% |
| Selenium | LLV100919X | 0.000500 | 0.000529 | -5.8 | +/- 20% |
| Silver | LLV101019X | 0.000500 | 0.000508 | -1.6 | +/- 20% |
| Arsenic | CCV1100919X | 0.0400 | 0.0380 | 5.0 | +/- 10% |
| Barium | CCV1100919X | 0.0400 | 0.0407 | -1.8 | +/- 10% |
| Iron | CCV1101019P | 5.00 | 5.13 | -2.6 | +/- 10% |
| Lead | CCV1100919X | 0.0400 | 0.0406 | -1.5 | +/- 10% |
| Manganese | CCV1100919P | 1.00 | 1.00 | 0 | +/- 10% |
| Mercury | CCV1100919X | 0.00500 | 0.00525 | -5.0 | +/- 20% |
| Selenium | CCV1100919X | 0.0400 | 0.0412 | -3.0 | +/- 10% |
| Silver | CCV1101019X | 0.0400 | 0.0387 | 3.3 | +/- 10% |
| Arsenic | CCV2100919X | 0.0400 | 0.0386 | 3.5 | +/- 10% |
| Barium | CCV2100919X | 0.0400 | 0.0410 | -2.5 | +/- 10% |
| Iron | CCV21001019P | 5.00 | 5.26 | -5.2 | +/- 10% |
| Lead | CCV2100919X | 0.0400 | 0.0394 | 1.5 | +/- 10% |
| Manganese | CCV2100919P | 1.00 | 0.992 | 0.80 | +/- 10% |
| Mercury | CCV2100919X | 0.00500 | 0.00535 | -7.0 | +/- 20% |
| Selenium | CCV2100919X | 0.0400 | 0.0394 | 1.5 | +/- 10% |
| Silver | CCV2101019X | 0.0400 | 0.0405 | -1.3 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | CCV3100919X | 0.0400 | 0.0375 | 6.3 | +/- 10% |
| Barium | CCV3100919X | 0.0400 | 0.0416 | -4.0 | +/- 10% |
| Iron | CCV3101019P | 5.00 | 5.11 | -2.2 | +/- 10% |
| Lead | CCV3100919X | 0.0400 | 0.0399 | 0.25 | +/- 10% |
| Manganese | CCV3100919P | 1.00 | 0.991 | 0.90 | +/- 10% |
| Mercury | CCV3100919X | 0.00500 | 0.00544 | -8.8 | +/- 20% |
| Selenium | CCV3100919X | 0.0400 | 0.0378 | 5.5 | +/- 10% |
| Silver | CCV3100919X | 0.0400 | 0.0404 | -1.0 | +/- 10% |
| Arsenic | CCV4100919X | 0.0400 | 0.0387 | 3.3 | +/- 10% |
| Barium | CCV4100919X | 0.0400 | 0.0419 | -4.8 | +/- 10% |
| Iron | CCV4101019P | 5.00 | 5.19 | -3.8 | +/- 10% |
| Lead | CCV4100919X | 0.0400 | 0.0399 | 0.25 | +/- 10% |
| Manganese | CCV4100919P | 1.00 | 1.01 | -1.0 | +/- 10% |
| Mercury | CCV4100919X | 0.00500 | 0.00527 | -5.4 | +/- 20% |
| Selenium | CCV4100919X | 0.0400 | 0.0392 | 2.0 | +/- 10% |
| Silver | CCV4100919X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Iron | CCV5101019P | 5.00 | 5.10 | -2.0 | +/- 10% |
| Manganese | CCV5100919P | 1.00 | 0.990 | 1.0 | +/- 10% |
| Selenium | CCV5100919X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV6100919P | 1.00 | 1.00 | 0 | +/- 10% |
| Selenium | CCV6100919X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Manganese | CCV7100919P | 1.00 | 1.01 | -1.0 | +/- 10% |
| Manganese | CCV8100919P | 1.00 | 0.994 | 0.60 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 8, 2019
Laboratory Reference: 1910-077
Project: 4296-008

**% MOISTURE**

| Client ID | Lab ID | % Moisture | Date Analyzed |
|---|---|---|---|
| **SR03-CS-01-02** | 10-077-01 | **3** | 10-8-19 |
| **SR03-CS-02-02** | 10-077-02 | **13** | 10-8-19 |
| **SR03-CS-03-02** | 10-077-03 | **10** | 10-8-19 |
| **SR03-CS-04-02** | 10-077-04 | **8** | 10-8-19 |
| **SR03-CS-05-02** | 10-077-05 | **7** | 10-8-19 |
| **SR03-CS-06-02** | 10-077-06 | **7** | 10-8-19 |
| **SR03-CS-07-02** | 10-077-07 | **7** | 10-8-19 |
| **SR03-CS-08-02** | 10-077-08 | **3** | 10-8-19 |
| **SR03-CS-09-02** | 10-077-09 | **7** | 10-8-19 |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

**Data Qualifiers and Abbreviations**

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

# Chain of Custody



14

**OnSite Environmental Inc.**
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 4296-008
Project Name: Saddle Rock IRA
Project Manager: Nick Rohrbach (NER)
Sampled by: Josh Lee (JML)

**Turnaround Request (in working days)**
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

**Laboratory Number:** 10-077

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Gx | NWTPH-Dx (☐ Acid / SG Clean-up) | Volatiles 8260C | Halogenated Volatiles 8260C | EDB EPA 8011 (Waters Only) | Semivolatiles 8270D/SIM (with low-level PAHs) | PAHs 8270D/SIM (low-level) | PCBs 8082A | Organochlorine Pesticides 8081B | Organophosphorus Pesticides 8270D/SIM | Chlorinated Acid Herbicides 8151A | Total RCRA Metals | Total MTCA Metals (As), Ba, Fe, Pb* | ~~TCLP Metals~~ Mn, Hg, Se, Ag* | HEM (oil and grease) 1664A | | | | | | % Moisture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SR03-CS-01-02 | 10/4/17 | 0730 | S | 1 | | | | | | | | | | | | | | | X | | | | | | | 10 |
| 2 | SR03-CS-02-02 | ↓ | 0740 | ↓ | ↓ | | | | | | | | | | | | | | | X | | | | | | | ↓ |
| 3 | SR03-CS-03-02 | | 0800 | | | | | | | | | | | | | | | | | X | | | | | | | |
| 4 | SR03-CS-04-02 | ↓ | 0830 | | | | | | | | | | | | | | | | | X | | | | | | | |
| 5 | SR03-CS-05-02 | 10/7/19 | 0805 | | | | | | | | | | | | | | | | | X | | | | | | | |
| 6 | SR03-CS-06-02 | ↓ | 0830 | | | | | | | | | | | | | | | | | X | | | | | | | |
| 7 | SR03-CS-07-02 | | 0850 | | | | | | | | | | | | | | | | | X | | | | | | | |
| 8 | SR03-CS-08-02 | | 0930 | | | | | | | | | | | | | | | | | X | | | | | | | |
| 9 | SR03-CS-09-02 | ↓ | 0945 | ↓ | ↓ | | | | | | | | | | | | | | | X | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | | GeoEngineers, Inc. | 10/7/19 | 1200 |
| Received | | | 10/8/19 | 1100 |
| Relinquished | | | | |
| Received | | | | |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Reviewed/Date | | |

**Comments/Special Instructions**
* Special Detection Limits

Data Package: Standard ☐ Level III ☐ Level IV ☒
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☒

# Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 4296-008

OnSite Project Number: 10-077

Initiated by: MV

Date Initiated: 10/8/19

## 1.0 Cooler Verification

| | | | | | |
|---|---|---|---|---|---|
| 1.1 Were there custody seals on the outside of the cooler? | **Yes** | (No) | **N/A** | 1 2 3 4 | |
| 1.2 Were the custody seals intact? | **Yes** | No | (N/A) | 1 2 3 4 | |
| 1.3 Were the custody seals signed and dated by last custodian? | **Yes** | No | (N/A) | 1 2 3 4 | |
| 1.4 Were the samples delivered on ice or blue ice? | (Yes) | No | | 1 2 3 4 | |
| 1.5 Were samples received between 0-6 degrees Celsius? | (Yes) | No | Temperature: 4 | | |
| 1.6 Have shipping bills (if any) been attached to the back of this form? | (Yes) | (N/A) | | | |
| 1.7 How were the samples delivered? | **Client** | **Courier** | **(UPS/FedEx)** | **OSE Pickup** | **Other** |

## 2.0 Chain of Custody Verification

| | | | | |
|---|---|---|---|---|
| 2.1 Was a Chain of Custody submitted with the samples? | (Yes) | No | | 1 2 3 4 |
| 2.2 Was the COC legible and written in permanent ink? | (Yes) | No | | 1 2 3 4 |
| 2.3 Have samples been relinquished and accepted by each custodian? | (Yes) | No | | 1 2 3 4 |
| 2.4 Did the sample labels (ID, date, time, preservative) agree with COC? | (Yes) | No | | 1 2 3 4 |
| 2.5 Were all of the samples listed on the COC submitted? | (Yes) | No | | 1 2 3 4 |
| 2.6 Were any of the samples submitted omitted from the COC? | Yes | (No) | | 1 2 3 4 |

## 3.0 Sample Verification

| | | | | |
|---|---|---|---|---|
| 3.1 Were any sample containers broken or compromised? | Yes | (No) | | 1 2 3 4 |
| 3.2 Were any sample labels missing or illegible? | Yes | (No) | | 1 2 3 4 |
| 3.3 Have the correct containers been used for each analysis requested? | (Yes) | No | | 1 2 3 4 |
| 3.4 Have the samples been correctly preserved? | **Yes** | No | (N/A) | 1 2 3 4 |
| 3.5 Are volatiles samples free from headspace and bubbles greater than 6mm? | **Yes** | No | (N/A) | 1 2 3 4 |
| 3.6 Is there sufficient sample submitted to perform requested analyses? | (Yes) | No | | 1 2 3 4 |
| 3.7 Have any holding times already expired or will expire in 24 hours? | Yes | (No) | | 1 2 3 4 |
| 3.8 Was method 5035A used? | **Yes** | No | (N/A) | 1 2 3 4 |
| 3.9 If 5035A was used, which sampling option was used (#1, 2, or 3). | **#** | | (N/A) | 1 2 3 4 |

**Explain any discrepancies:**

| |
|---|
| |
| |
| |
| |
| |
| |

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

# Total Metals
# EPA 6010D/6020B/7471B Data

# RAW DATA

- Total Metals EPA 6010D/6020B/7471B

**Report Generated By CETAC QuickTrace**
**Analyst:** kmckinney
**Worksheet file:** C:\Program Files\QuickTrace\Worksheets\10 October 2019\Y191009S1.wsz
**Date Started:** 10/9/2019 12:39:48 PM
**Comment:**

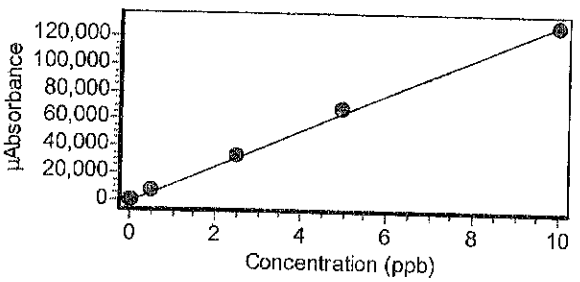
10/9/19
MM

# *Results*

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| Calibration Blank | STD | 10/09/19 12:45:45 pm | 0.000 | -34 | 33.94 | |
| Standard 0.05 ppb | STD | 10/09/19 12:47:37 pm | 0.050 | 660 | 0.93 | |
| Standard 0.5 ppb | STD | 10/09/19 12:49:30 pm | 0.500 | 6956 | 0.17 | |
| Standard 2.5 ppb | STD | 10/09/19 12:51:24 pm | 2.500 | 33759 | 0.50 | |
| Standard 5.0 ppb | STD | 10/09/19 12:53:17 pm | 5.000 | 68105 | 0.21 | |
| Standard 10.0 ppb | STD | 10/09/19 12:55:12 pm | 10.000 | 127775 | 0.13 | |

Calibration

Equation: A = -34.437 + 12979.230C
R2: 0.99848
SEE: 2346.3100
Flags:




| | | | | | | |
|---|---|---|---|---|---|---|
| ICV<br>% Recovery 106.17 | ICV | 10/09/19 12:57:08 pm | 5.308 | 68863 | 0.29 | |
| ICB | ICB | 10/09/19 12:58:59 pm | -0.009 | -155 | 1.97 | |
| CCV<br>% Recovery 105.05 | CCV | 10/09/19 01:00:53 pm | 5.253 | 68140 | 0.22 | |
| CCB | CCB | 10/09/19 01:02:45 pm | -0.012 | -190 | 1.18 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| MB1009S2 | UNK | 10/09/19 01:04:36 pm | -0.001 | -52 | 48.04 | |
| SB1009S2 | UNK | 10/09/19 01:06:28 pm | 5.183 | 67240 | 0.17 | |
| 10-077-01 | UNK | 10/09/19 01:08:20 pm | 0.412 | 5307 | 0.25 | |
| 10-077-01 DUP | UNK | 10/09/19 01:10:13 pm | 0.663 | 8576 | 0.29 | |
| 10-077-01 L | UNK | 10/09/19 01:12:07 pm | 0.091 | 1149 | 0.69 | |
| 10-077-01 MS | UNK | 10/09/19 01:14:00 pm | 5.470 | 70967 | 0.51 | |
| 10-077-01 MSD | UNK | 10/09/19 01:15:54 pm | 5.611 | 72796 | 0.12 | |
| 10-077-02 | UNK | 10/09/19 01:17:49 pm | 0.302 | 3882 | 0.19 | |
| 10-077-03 | UNK | 10/09/19 01:19:40 pm | 2.518 | 32652 | 0.66 | |
| 10-077-04 | UNK | 10/09/19 01:21:32 pm | 19.641 | 254886 | 0.27 | O |
| CCV | CCV | 10/09/19 01:23:26 pm | 5.353 | 69445 | 0.60 | |
| % Recovery 107.06 | | | | | | |
| CCB | CCB | 10/09/19 01:25:17 pm | -0.018 | -267 | 5.23 | |
| 10-077-05 | UNK | 10/09/19 01:27:10 pm | 0.649 | 8395 | 0.17 | |
| 10-077-06 | UNK | 10/09/19 01:29:02 pm | 0.634 | 8189 | 0.13 | |
| 10-077-07 | UNK | 10/09/19 01:30:56 pm | 1.278 | 16558 | 0.43 | |
| 10-077-08 | UNK | 10/09/19 01:32:49 pm | 1.530 | 19823 | 0.26 | |
| 10-077-09 | UNK | 10/09/19 01:34:44 pm | 1.175 | 15209 | 0.27 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| 10-038-01 | UNK | 10/09/19 01:36:36 pm | 0.026 | 307 | 1.67 | |
| CCV | CCV | 10/09/19 01:38:30 pm | 5.437 | 70536 | 0.10 | |
| % Recovery 108.74 | | | | | | |
| CCB | CCB | 10/09/19 01:40:21 pm | -0.010 | -160 | 2.77 | |
| 10-077-04 5X | UNK | 10/09/19 02:25:31 pm | 4.417 | 57300 | 0.27 | |
| 10-112-01 | UNK | 10/09/19 02:27:23 pm | 0.846 | 10948 | 0.57 | |
| 10-112-02 | UNK | 10/09/19 02:29:15 pm | 1.129 | 14624 | 0.15 | |
| 10-112-03 | UNK | 10/09/19 02:31:08 pm | 0.309 | 3971 | 0.61 | |
| 10-112-04 | UNK | 10/09/19 02:33:01 pm | 1.058 | 13696 | 0.44 | |
| 10-112-05 | UNK | 10/09/19 02:34:55 pm | 1.170 | 15157 | 0.60 | |
| 10-112-06 | UNK | 10/09/19 02:36:49 pm | 4.619 | 59911 | 0.19 | |
| CCV | CCV | 10/09/19 02:38:43 pm | 5.267 | 68328 | 0.07 | |
| % Recovery 105.34 | | | | | | |
| CCB | CCB | 10/09/19 02:40:35 pm | -0.010 | -165 | 12.60 | |

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | 10-063-29 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | 10-063-30 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-063-31 | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-063-32 | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-063-33 | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-063-34 | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 17 | MB1009SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 18 | SB1009SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-077-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-077-01 D | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-077-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | 10-077-01 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | 10-077-01 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | 10-077-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 25 | 10-077-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 28 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 29 | SB1009SH1 X 2 | Samp | 1.0000 | 1.00 | 1.00 |
| 30 | 10-077-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | 10-077-01 D X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 32 | 10-077-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 33 | 10-077-01 MS X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-077-01 MSD X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | 10-077-02 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 36 | 10-077-03 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 37 | 10-077-04 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-077-05 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 40 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 41 | 10-077-06 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 42 | 10-077-01 MS X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | 10-077-01 MSD X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 44 | 10-077-07 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 45 | 10-077-08 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-077-09 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | 10-077-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 48 | 10-077-05 | Samp | 1.0000 | 1.00 | 1.00 |
| 49 | BLK | Samp | 1.0000 | 1.00 | 1.00 |

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 50 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 51 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 52 | MB1009SM2 | Samp | 1.0000 | 1.00 | 1.00 |
| 53 | SB1009SM2 | Samp | 1.0000 | 1.00 | 1.00 |
| 54 | 10-095-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 55 | 10-095-04 D | Samp | 1.0000 | 1.00 | 1.00 |
| 56 | 10-095-04 L | Samp | 1.0000 | 1.00 | 1.00 |
| 57 | 10-095-04 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 58 | 10-095-04 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 59 | 10-082-02b | Samp | 1.0000 | 1.00 | 1.00 |
| 60 | 10-078-01a | Samp | 1.0000 | 1.00 | 1.00 |

Rack: 2 Type: 12 x 150 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Blank | Blk | 1.0000 | 1.00 | 1.00 |
| 2 | Standard 6 | Std | 1.0000 | 1.00 | 1.00 |
| 3 | Standard 5 | Std | 1.0000 | 1.00 | 1.00 |
| 4 | Standard 4 | Std | 1.0000 | 1.00 | 1.00 |
| 5 | Standard 3 | Std | 1.0000 | 1.00 | 1.00 |
| 6 | Standard 2 | Std | 1.0000 | 1.00 | 1.00 |
| 7 | Standard 1 | Std | 1.0000 | 1.00 | 1.00 |
| 8 | Standard 7 | Std | 1.0000 | 1.00 | 1.00 |

Rack: 3 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | 10-116-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 2 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 3 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 4 | 10-116-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 5 | 10-116-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 6 | 10-116-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | 10-095-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | 10-095-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | 10-095-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-066-10a | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-066-12a | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-066-14a | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-066-18a | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 15 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 16 | 10-038-01(1009SH1) | Samp | 1.0000 | 1.00 | 1.00 |
| 17 | 10-112-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 18 | 10-112-02 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-112-03 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-112-04 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-112-05 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | 10-112-06 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 25 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 26 | 10-124-01(1009SM2) | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-124-02 | Samp | 1.0000 | 1.00 | 1.00 |

**Blank (Blk)** **10/9/2019, 9:09:50 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | -0.000 | 0.000 | 0.000 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 0.000 | ppb | 0.635 | 15.6 | 4.078 |

**Standard 5 (Std)** **10/9/2019, 9:38:38 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 0.011 | 0.011 | 0.011 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 10.000 | ppb | 4.310 | 3.4 | 128.52 |

**Standard 4 (Std)** **10/9/2019, 9:18:27 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 0.106 | 0.107 | 0.108 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 100.00 | ppb | 8.418 | 0.7 | 1206.6 |

**Standard 3 (Std)** **10/9/2019, 9:22:46 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 0.997 | 1.005 | 1.013 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 1000.0 | ppb | 89.836 | 0.8 | 11312 |

**Standard 2 (Std)** **10/9/2019, 9:27:05 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 2.468 | 2.488 | 2.537 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 2500.0 | ppb | 398.695 | 1.4 | 28113 |

**Mn 257.610 Calibration (ppm)** **10/9/2019, 9:38:38 AM** **Correlation Coefficient: 0.999996**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.078 | 0.000 | 0.000 | - | - |
| Standard 5 | | 128.52 | 0.010 | 0.011 | 0.001 | 10.6 |
| Standard 4 | | 1206.6 | 0.100 | 0.107 | 0.007 | 6.9 |
| Standard 3 | | 11312 | 1.000 | 1.005 | 0.005 | 0.5 |
| Standard 2 | | 28113 | 2.500 | 2.498 | -0.002 | -0.1 |

Curve Type: Linear Equation: $y = 11253.6\ x + 4.1$

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Mn 257.610 | 0.000 | ppb | 10/9/2019, 9:09:50 AM |
| Standard 5 | Mn 257.610 | 10.000 | ppb | 10/9/2019, 9:38:38 AM |
| Standard 4 | Mn 257.610 | 100.00 | ppb | 10/9/2019, 9:18:27 AM |
| Standard 3 | Mn 257.610 | 1000.0 | ppb | 10/9/2019, 9:22:46 AM |
| Standard 2 | Mn 257.610 | 2500.0 | ppb | 10/9/2019, 9:27:05 AM |
| Initial Calib Verif | Mn 257.610 | 1039.2 | ppb | 10/9/2019, 9:50:57 AM |
| Initial Calib Blank | Mn 257.610 | 0.393uv | ppb | 10/9/2019, 9:56:47 AM |
| LLV | Mn 257.610 | 10.806 | ppb | 10/9/2019, 10:01:06 AM |
| Cont Calib Verif | Mn 257.610 | 1000.4 | ppb | 10/9/2019, 10:11:45 AM |
| Cont Calib Blank | Mn 257.610 | 0.418 | ppb | 10/9/2019, 10:16:03 AM |
| ICSA | Mn 257.610 | 0.405 | ppb | 10/9/2019, 10:20:21 AM |
| ICSAB | Mn 257.610 | 463.29 | ppb | 10/9/2019, 10:24:41 AM |
| 10-063-29 | Mn 257.610 | 9136.0 | ppb | 10/9/2019, 11:40:02 AM |
| 10-063-30 | Mn 257.610 | 7597.0 | ppb | 10/9/2019, 11:44:22 AM |
| 10-063-31 | Mn 257.610 | 6822.4 | ppb | 10/9/2019, 11:48:43 AM |
| 10-063-32 | Mn 257.610 | 8507.1 | ppb | 10/9/2019, 11:53:01 AM |
| 10-063-33 | Mn 257.610 | 5384.3 | ppb | 10/9/2019, 11:57:21 AM |
| 10-063-34 | Mn 257.610 | 5344.4 | ppb | 10/9/2019, 12:01:40 PM |
| BLK | Mn 257.610 | 3.372 | ppb | 10/9/2019, 12:06:00 PM |
| Cont Calib Verif | Mn 257.610 | 991.71 | ppb | 10/9/2019, 12:10:19 PM |
| Cont Calib Blank | Mn 257.610 | 0.161uv | ppb | 10/9/2019, 12:14:38 PM |
| MB1009SH1 | Mn 257.610 | 2.204 | ppb | 10/9/2019, 12:54:19 PM |
| SB1009SH1 | Mn 257.610 | 488.16 | ppb | 10/9/2019, 12:58:39 PM |
| 10-077-01 | Mn 257.610 | 6296.7 | ppb | 10/9/2019, 1:02:58 PM |
| 10-077-01 D | Mn 257.610 | 6035.5 | ppb | 10/9/2019, 1:07:17 PM |
| 10-077-01 L | Mn 257.610 | 1429.0 | ppb | 10/9/2019, 1:11:36 PM |
| 10-077-01 MS | Mn 257.610 | 6871.6 | ppb | 10/9/2019, 1:15:55 PM |
| 10-077-01 MSD | Mn 257.610 | 7033.0 | ppb | 10/9/2019, 1:20:14 PM |
| 10-077-02 | Mn 257.610 | 5803.7 | ppb | 10/9/2019, 1:24:33 PM |
| 10-077-03 | Mn 257.610 | 2693.1 | ppb | 10/9/2019, 1:28:52 PM |
| BLK | Mn 257.610 | 1.499 | ppb | 10/9/2019, 1:33:11 PM |
| Cont Calib Verif | Mn 257.610 | 991.38 | ppb | 10/9/2019, 1:37:29 PM |
| Cont Calib Blank | Mn 257.610 | 0.027uv | ppb | 10/9/2019, 1:41:49 PM |
| SB1009SH1 X 2 | Mn 257.610 | 234.09 | ppb | 10/9/2019, 1:48:52 PM |
| 10-077-01 X 50 | Mn 257.610 | 152.05 | ppb | 10/9/2019, 1:53:11 PM |
| 10-077-01 D X 50 | Mn 257.610 | 149.88 | ppb | 10/9/2019, 1:57:30 PM |
| 10-077-01 L | Mn 257.610 | 30.831 | ppb | 10/9/2019, 2:01:49 PM |
| 10-077-01 MS X 50 | Mn 257.610 | 339.61 | ppb | 10/9/2019, 2:06:07 PM |
| 10-077-01 MSD X 50 | Mn 257.610 | 338.95 | ppb | 10/9/2019, 2:10:26 PM |
| 10-077-02 X 50 | Mn 257.610 | 145.71 | ppb | 10/9/2019, 2:14:46 PM |
| 10-077-03 X 50 | Mn 257.610 | 59.630 | ppb | 10/9/2019, 2:19:06 PM |
| 10-077-04 X 50 | Mn 257.610 | 0.401 | ppb | 10/9/2019, 2:25:31 PM |
| 10-077-05 X 50 | Mn 257.610 | 58.078 | ppb | 10/9/2019, 2:29:49 PM |
| Cont Calib Verif | Mn 257.610 | 1006.1 | ppb | 10/9/2019, 2:34:08 PM |
| Cont Calib Blank | Mn 257.610 | -0.127uv | ppb | 10/9/2019, 2:38:27 PM |
| 10-077-06 X 50 | Mn 257.610 | 115.89 | ppb | 10/9/2019, 2:43:00 PM |
| 10-077-01 MS X 50 | Mn 257.610 | 155.84 | ppb | 10/9/2019, 2:50:29 PM |
| 10-077-01 MSD X 50 | Mn 257.610 | 150.04 | ppb | 10/9/2019, 2:56:17 PM |
| 10-077-07 X 50 | Mn 257.610 | 113.54 | ppb | 10/9/2019, 3:00:38 PM |
| 10-077-08 X 50 | Mn 257.610 | 185.12 | ppb | 10/9/2019, 3:04:57 PM |
| 10-077-09 X 50 | Mn 257.610 | 221.21 | ppb | 10/9/2019, 3:09:17 PM |
| 10-077-04 | Mn 257.610 | 31.330 | ppb | 10/9/2019, 3:13:36 PM |

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| 10-077-05 | Mn 257.610 | 2663.8 | ppb | 10/9/2019, 3:17:55 PM |
| BLK | Mn 257.610 | 0.762 | ppb | 10/9/2019, 3:22:14 PM |
| Cont Calib Verif | Mn 257.610 | 990.42 | ppb | 10/9/2019, 3:26:32 PM |
| Cont Calib Blank | Mn 257.610 | 0.228 | ppb | 10/9/2019, 3:30:51 PM |
| MB1009SM2 | Mn 257.610 | 0.942 | ppb | 10/9/2019, 3:35:11 PM |
| SB1009SM2 | Mn 257.610 | 1.980 | ppb | 10/9/2019, 3:39:31 PM |
| 10-095-04 | Mn 257.610 | 3036.2 | ppb | 10/9/2019, 3:43:51 PM |
| 10-095-04 D | Mn 257.610 | 2764.7 | ppb | 10/9/2019, 3:48:10 PM |
| 10-095-04 L | Mn 257.610 | 625.63 | ppb | 10/9/2019, 3:52:30 PM |
| 10-095-04 MS | Mn 257.610 | 2873.3 | ppb | 10/9/2019, 3:56:49 PM |
| 10-095-04 MSD | Mn 257.610 | 2797.5 | ppb | 10/9/2019, 4:01:09 PM |
| 10-082-02b | Mn 257.610 | 4220.1 | ppb | 10/9/2019, 4:08:49 PM |
| 10-078-01a | Mn 257.610 | 2602.1 | ppb | 10/9/2019, 4:13:08 PM |
| 10-116-01 | Mn 257.610 | 7558.2 | ppb | 10/9/2019, 4:19:03 PM |
| Cont Calib Verif | Mn 257.610 | 1001.2 | ppb | 10/9/2019, 4:23:22 PM |
| Cont Calib Blank | Mn 257.610 | 0.579 | ppb | 10/9/2019, 4:27:41 PM |
| 10-116-02 | Mn 257.610 | 8809.3 | ppb | 10/9/2019, 4:34:42 PM |
| 10-116-03 | Mn 257.610 | 8281.6 | ppb | 10/9/2019, 4:39:01 PM |
| 10-116-04 | Mn 257.610 | 7902.6 | ppb | 10/9/2019, 4:43:21 PM |
| 10-095-01 | Mn 257.610 | 4112.5 | ppb | 10/9/2019, 4:47:40 PM |
| 10-095-02 | Mn 257.610 | 4679.3 | ppb | 10/9/2019, 4:52:00 PM |
| 10-095-03 | Mn 257.610 | 3975.8 | ppb | 10/9/2019, 4:56:19 PM |
| 10-066-10a | Mn 257.610 | 7288.8 | ppb | 10/9/2019, 5:00:38 PM |
| 10-066-12a | Mn 257.610 | 2946.7 | ppb | 10/9/2019, 5:04:57 PM |
| 10-066-14a | Mn 257.610 | 3204.2 | ppb | 10/9/2019, 5:09:17 PM |
| 10-066-18a | Mn 257.610 | 3730.2 | ppb | 10/9/2019, 5:13:36 PM |
| Cont Calib Verif | Mn 257.610 | 1013.1 | ppb | 10/9/2019, 5:17:55 PM |
| Cont Calib Blank | Mn 257.610 | 0.559 | ppb | 10/9/2019, 5:22:14 PM |
| 10-038-01(1009SH1) | Mn 257.610 | 2575.0 | ppb | 10/9/2019, 5:29:04 PM |
| 10-112-01 X 50 | Mn 257.610 | 147.33 | ppb | 10/9/2019, 5:33:22 PM |
| 10-112-02 X 50 | Mn 257.610 | 168.70 | ppb | 10/9/2019, 5:39:33 PM |
| 10-112-03 X 50 | Mn 257.610 | 128.41 | ppb | 10/9/2019, 5:43:53 PM |
| 10-112-04 X 50 | Mn 257.610 | 129.46 | ppb | 10/9/2019, 5:48:12 PM |
| 10-112-05 X 50 | Mn 257.610 | 134.60 | ppb | 10/9/2019, 5:52:30 PM |
| 10-112-06 X 50 | Mn 257.610 | 145.87 | ppb | 10/9/2019, 5:56:49 PM |
| BLK | Mn 257.610 | 0.605 | ppb | 10/9/2019, 6:01:08 PM |
| Cont Calib Verif | Mn 257.610 | 993.64 | ppb | 10/9/2019, 6:05:28 PM |
| Cont Calib Blank | Mn 257.610 | 0.098uv | ppb | 10/9/2019, 6:09:47 PM |

 KH 10/10/19 

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | MB1010TM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | SB1010TM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-079-01a | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-079-01a D | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-079-01a L | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-079-01a MS | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | 10-079-01a MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | 10-066-23a | Samp | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 17 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 18 | 10-038-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 20 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 21 | MB1010SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | SB1010SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | 10-077-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | 10-077-01 D X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 25 | 10-077-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | 10-077-01 MS X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-077-01 MSD X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 28 | 10-077-02 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 29 | 10-077-03 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 30 | 10-077-04 X 5 | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 32 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 33 | 10-077-05 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-077-06 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | 10-077-07 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 36 | 10-077-08 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 37 | 10-077-09 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-112-01 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | 10-112-02 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 40 | 10-112-03 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 41 | 10-112-04 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 42 | 10-112-05 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 44 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 45 | 10-112-06 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-077-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 48 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 49 | | Samp | 1.0000 | 1.00 | 1.00 |

**Blank (Blk)** **10/10/2019, 9:38:09 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.000 | 0.001 | -0.001 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 0.000 | ppb | 0.827 | 20.2 | 4.098 |

**Standard 5 (Std)** **10/10/2019, 10:16:53 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.060 | 0.058 | 0.060 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 50.000 | ppb | 0.998 | 1.8 | 56.638 |

**Standard 4 (Std)** **10/10/2019, 9:46:47 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.513 | 0.521 | 0.524 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 500.00 | ppb | 4.852 | 1.0 | 462.98 |

**Standard 3 (Std)** **10/10/2019, 9:51:07 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 5.045 | 5.086 | 5.115 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 5000.0 | ppb | 30.996 | 0.7 | 4493.8 |

**Standard 2 (Std)** **10/10/2019, 9:55:26 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 12.143 | 12.322 | 12.427 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 12500 | ppb | 127.036 | 1.2 | 10868 |

**Standard 1 (Std)** **10/10/2019, 9:59:45 AM** **Rack 2, Tube 7**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 24.994 | 24.927 | 25.333 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 25000 | ppb | 192.140 | 0.9 | 22166 |

**Fe 259.940 Calibration (ppm)** **10/10/2019, 10:16:53 AM** **Correlation Coefficient: 0.999944**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.098 | 0.000 | 0.000 | - | - |
| Standard 5 | | 56.638 | 0.050 | 0.059 | 0.009 | 18.9 |
| Standard 4 | | 462.98 | 0.500 | 0.519 | 0.019 | 3.9 |
| Standard 3 | | 4493.8 | 5.000 | 5.082 | 0.082 | 1.6 |
| Standard 2 | | 10868 | 12.500 | 12.297 | -0.203 | -1.6 |
| Standard 1 | | 22166 | 25.000 | 25.085 | 0.085 | 0.3 |

Curve Type: Linear Equation: $y = 883.5\ x + 4.1$

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Fe 259.940 | 0.000 | ppb | 10/10/2019, 9:38:09 AM |
| Standard 5 | Fe 259.940 | 50.000 | ppb | 10/10/2019, 10:16:53 AM |
| Standard 4 | Fe 259.940 | 500.00 | ppb | 10/10/2019, 9:46:47 AM |
| Standard 3 | Fe 259.940 | 5000.0 | ppb | 10/10/2019, 9:51:07 AM |
| Standard 2 | Fe 259.940 | 12500 | ppb | 10/10/2019, 9:55:26 AM |
| Standard 1 | Fe 259.940 | 25000 | ppb | 10/10/2019, 9:59:45 AM |
| Initial Calib Verif | Fe 259.940 | 1034.8 | ppb | 10/10/2019, 10:23:20 AM |
| Initial Calib Blank | Fe 259.940 | 31.338 | ppb | 10/10/2019, 10:29:50 AM |
| LLV | Fe 259.940 | 52.976 | ppb | 10/10/2019, 10:53:37 AM |
| Cont Calib Verif | Fe 259.940 | 5133.7 | ppb | 10/10/2019, 10:59:44 AM |
| Cont Calib Blank | Fe 259.940 | 6.586 | ppb | 10/10/2019, 11:04:02 AM |
| ICSA | Fe 259.940 | 155730x | ppb | 10/10/2019, 11:08:21 AM |
| ICSAB | Fe 259.940 | 152194x | ppb | 10/10/2019, 11:13:15 AM |
| MB1010TM1 | Fe 259.940 | 39.128 | ppb | 10/10/2019, 11:20:03 AM |
| SB1010TM1 | Fe 259.940 | 307.19 | ppb | 10/10/2019, 11:24:24 AM |
| 10-079-01a | Fe 259.940 | 857.47 | ppb | 10/10/2019, 11:28:45 AM |
| 10-079-01a D | Fe 259.940 | 946.91 | ppb | 10/10/2019, 11:33:04 AM |
| 10-079-01a L | Fe 259.940 | 228.67 | ppb | 10/10/2019, 11:37:23 AM |
| 10-079-01a MS | Fe 259.940 | 906.18 | ppb | 10/10/2019, 11:41:41 AM |
| 10-079-01a MSD | Fe 259.940 | 861.76 | ppb | 10/10/2019, 11:45:59 AM |
| 10-066-23a | Fe 259.940 | 1237.8 | ppb | 10/10/2019, 11:50:18 AM |
| Cont Calib Verif | Fe 259.940 | 5259.5 | ppb | 10/10/2019, 11:54:36 AM |
| Cont Calib Blank | Fe 259.940 | 41.210 | ppb | 10/10/2019, 11:58:55 AM |
| 10-038-01 | Fe 259.940 | 1.870uv | ppb | 10/10/2019, 12:06:27 PM |
| Cont Calib Verif | Fe 259.940 | 5033.1 | ppb | 10/10/2019, 12:34:32 PM |
| Cont Calib Blank | Fe 259.940 | 17.033 | ppb | 10/10/2019, 12:38:51 PM |
| MB1010SH1 | Fe 259.940 | 32.832 | ppb | 10/10/2019, 1:28:01 PM |
| SB1010SH1 | Fe 259.940 | 19479 | ppb | 10/10/2019, 1:32:21 PM |
| 10-077-01 X 50 | Fe 259.940 | 4912.0 | ppb | 10/10/2019, 1:36:40 PM |
| 10-077-01 D X 50 | Fe 259.940 | 5550.2 | ppb | 10/10/2019, 1:40:57 PM |
| 10-077-01 L | Fe 259.940 | 991.24 | ppb | 10/10/2019, 1:45:17 PM |
| 10-077-01 MS X 50 | Fe 259.940 | 4396.7 | ppb | 10/10/2019, 1:50:59 PM |
| 10-077-01 MSD X 50 | Fe 259.940 | 5350.5 | ppb | 10/10/2019, 1:55:20 PM |
| 10-077-02 X 20 | Fe 259.940 | 18278 | ppb | 10/10/2019, 1:59:39 PM |
| 10-077-03 X 20 | Fe 259.940 | 10404 | ppb | 10/10/2019, 2:03:56 PM |
| 10-077-04 X 5 | Fe 259.940 | 19604 | ppb | 10/10/2019, 2:08:15 PM |
| Cont Calib Verif | Fe 259.940 | 5108.4 | ppb | 10/10/2019, 2:12:34 PM |
| Cont Calib Blank | Fe 259.940 | 5.685 | ppb | 10/10/2019, 2:16:53 PM |
| 10-077-05 X 20 | Fe 259.940 | 10421 | ppb | 10/10/2019, 2:25:29 PM |
| 10-077-06 X 20 | Fe 259.940 | 20358 | ppb | 10/10/2019, 2:29:48 PM |
| 10-077-07 X 20 | Fe 259.940 | 16727 | ppb | 10/10/2019, 2:34:08 PM |
| 10-077-08 X 20 | Fe 259.940 | 26224 | ppb | 10/10/2019, 2:38:28 PM |
| 10-077-09 X 20 | Fe 259.940 | 25543 | ppb | 10/10/2019, 2:42:47 PM |
| 10-112-01 X 20 | Fe 259.940 | 24801 | ppb | 10/10/2019, 2:47:06 PM |
| 10-112-02 X 20 | Fe 259.940 | 24508 | ppb | 10/10/2019, 2:51:25 PM |
| 10-112-03 X 20 | Fe 259.940 | 17897 | ppb | 10/10/2019, 2:55:43 PM |
| 10-112-04 X 20 | Fe 259.940 | 18843 | ppb | 10/10/2019, 3:00:01 PM |
| 10-112-05 X 20 | Fe 259.940 | 19503 | ppb | 10/10/2019, 3:04:19 PM |
| Cont Calib Verif | Fe 259.940 | 5186.3 | ppb | 10/10/2019, 3:08:39 PM |
| Cont Calib Blank | Fe 259.940 | 25.014 | ppb | 10/10/2019, 3:12:59 PM |
| 10-112-06 X 20 | Fe 259.940 | 19996 | ppb | 10/10/2019, 3:17:45 PM |
| 10-077-04 | Fe 259.940 | 87604 | ppb | 10/10/2019, 3:22:05 PM |

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Cont Calib Verif | Fe 259.940 | 5102.4 | ppb | 10/10/2019, 3:27:31 PM |
| Cont Calib Blank | Fe 259.940 | 36.364 | ppb | 10/10/2019, 3:31:49 PM |

10-10-19
KDM

# Dataset Report

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexION Data\DataSet\X191010A\
Report Date/Time: Thursday, October 10, 2019 11:36:55

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| SmartTune - T | Torch Alignment | 07:26:14 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Torch Alignment.001 | |
| SmartTune - T | Torch Alignment | 07:26:49 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Torch Alignment.002 | |
| SmartTune - N | Nebulizer Gas Flow S | 07:29:56 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Nebulizer Gas Flow STD-KED [NEB].00 | |
| SmartTune - D | Daily Performance Ch | 07:32:32 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Daily Performance Check.004 | |
| SmartTune - D | Daily Performance Ch | 07:35:46 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Daily Performance Check.005 | |
| SmartTune - D | Daily Performance Ch | 07:38:12 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Daily Performance Check.006 | |
| SmartTune - M | Mass Calibration and I | 07:42:13 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Mass Calibration and Resolution.007 | |
| | Blank | 09:06:39 Thu 10-O | Blank | C:\NexION Data\DataSet\X191010A\Blank.033 | |
| | Standard 2 | 09:08:41 Thu 10-O | Standard #2 | C:\NexION Data\DataSet\X191010A\Standard 2.034 | |
| | Standard 3 | 09:10:44 Thu 10-O | Standard #3 | C:\NexION Data\DataSet\X191010A\Standard 3.035 | |
| | Standard 4 | 09:12:48 Thu 10-O | Standard #4 | C:\NexION Data\DataSet\X191010A\Standard 4.036 | |
| | Standard 5 | 09:14:50 Thu 10-O | Standard #5 | C:\NexION Data\DataSet\X191010A\Standard 5.037 | |
| | Standard 6 | 09:16:53 Thu 10-O | Standard #6 | C:\NexION Data\DataSet\X191010A\Standard 6.038 | |
| | Standard 7 | 09:18:55 Thu 10-O | Standard #7 | C:\NexION Data\DataSet\X191010A\Standard 7.039 | |
| | QC Std 1 | 09:21:48 Thu 10-O | QC Std #1 | C:\NexION Data\DataSet\X191010A\QC Std 1.040 | |
| | QC Std 2 | 09:24:40 Thu 10-O | QC Std #2 | C:\NexION Data\DataSet\X191010A\QC Std 2.041 | |
| | QC Std 4 | 09:26:42 Thu 10-O | QC Std #4 | C:\NexION Data\DataSet\X191010A\QC Std 4.042 | |
| | QC Std 6 | 09:29:35 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.043 | |
| | QC Std 8 | 09:32:27 Thu 10-O | QC Std #8 | C:\NexION Data\DataSet\X191010A\QC Std 8.044 | |
| | ICSA | 09:34:29 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\ICSA.045 | |
| | ICSAB | 09:40:12 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\ICSAB.046 | |
| | MB1009SH1 25X | 09:47:29 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\MB1009SH1 25X.047 | |
| | SB1009SH1 25X | 10:00:59 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\SB1009SH1 25X.051 | |
| | 10-077-01 25X | 10:03:50 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01 25X.052 | |
| | 10-077-01D 25X | 10:06:41 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01D 25X.053 | |
| | 10-077-01L 125X | 10:09:33 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01L 125X.054 | |
| | 10-077-01MS 25X | 10:12:25 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01MS 25X.055 | |
| | 10-077-01MSD 25X | 10:15:18 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01MSD 25X.056 | |
| | 10-077-01PS 25X | 10:18:11 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01PS 25X.057 | |
| | QC Std 6 | 10:21:03 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.058 | |
| | QC Std 8 | 10:23:55 Thu 10-O | QC Std #8 | C:\NexION Data\DataSet\X191010A\QC Std 8.059 | |
| | 10-077-02 25X | 10:32:10 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-02 25X.060 | |
| | 10-077-03 25X | 10:35:03 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-03 25X.061 | |
| | 10-077-04 25X | 10:37:54 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-04 25X.062 | |
| | 10-077-05 25X | 10:40:45 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-05 25X.063 | |
| | 10-077-06 25X | 10:43:37 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-06 25X.064 | |
| | 10-077-07 25X | 10:46:28 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-07 25X.065 | |
| | 10-077-08 25X | 10:49:19 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-08 25X.066 | |
| | 10-077-09 25X | 10:52:09 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-09 25X.067 | |
| | QC Std 6 | 10:55:00 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.068 | |
| | QC Std 6 | 10:58:38 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\QC Std 6.069 | |
| | QC Std 8 | 11:01:31 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\QC Std 8.070 | |
| | 10-112-01 25X | 11:08:45 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-01 25X.071 | |
| | 10-112-02 25X | 11:11:37 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-02 25X.072 | |
| | 10-112-03 25X | 11:14:29 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-03 25X.073 | |
| | 10-112-04 25X | 11:17:20 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-04 25X.074 | |
| | 10-112-05 25X | 11:20:12 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-05 25X.075 | |
| | 10-112-06 25X | 11:30:27 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-06 25X.076 | |
| | QC Std 6 | 11:33:19 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.077 | |
| | QC Std 8 | 11:36:11 Thu 10-O | QC Std #8 | C:\NexION Data\DataSet\X191010A\QC Std 8.078 | |

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/10/2019 7:26:14 AM
End Time: 10/10/2019 7:26:45 AM

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Thursday, October 10, 2019 07:38:12
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191010A\Daily Performance Check.006
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 5709.3 | 5709.342 | 206.022 | 3.6 | Standard |
| | Mg | 24.0 | 42046.7 | 42046.667 | 1698.261 | 4.0 | Standard |
| | In | 114.9 | 48162.3 | 48162.339 | 904.590 | 1.9 | Standard |
| | U | 238.1 | 54475.8 | 54475.807 | 418.106 | 0.8 | Standard |
| ⌈ | CeO | 155.9 | 996.3 | 0.023 | 0.001 | 2.6 | Standard |
| \|> | Ce | 139.9 | 42937.0 | 42937.041 | 666.337 | 1.6 | Standard |
| ⌊ | Ce++ | 70.0 | 516.5 | 0.012 | 0.001 | 6.4 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 1.00 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 1.00 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/10/2019 7:38:12 AM
End Time: 10/10/2019 7:40:31 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5709.34
Obtained Intensity (Mg 23.985): 42046.67
Obtained Intensity (In 114.904): 48162.34
Obtained Intensity (U 238.05): 54475.81
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=996.30 / 42937.04)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=516.48 / 42937.04)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/10/2019 7:38:12 AM

Daily Performance Check
    Optimization Settings:
        Method: Daily Performance.mth.
        Intensity Criterion: Be 9.0122 > 2000
        Intensity Criterion: Mg 23.985 > 15000
        Intensity Criterion: In 114.904 > 40000
        Intensity Criterion: U 238.05 > 30000
        Intensity Criterion: Bkgd 220 <= 1
        Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
        Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

    Optimization Results:
    Initial Try
        Obtained Intensity (Be 9.0122): 5709.34
        Obtained Intensity (Mg 23.985): 42046.67
        Obtained Intensity (In 114.904): 48162.34
        Obtained Intensity (U 238.05): 54475.81
        Obtained Intensity (Bkgd 220): 0.00
        Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=996.30 / 42937.04)
        Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=516.48 / 42937.04)
[Passed]  Optimum value(s): N/A

End Time: 10/10/2019 7:40:31 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexION\Data\MassCal\Default.tun
Acq. Date/Time: 17:28:21 Wed 09-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 7.025 | 1208 | 2081 | 0.710 | |
| Mg | 23.985 | 23.975 | 4615 | 2084 | 0.691 | |
| In | 114.904 | 114.925 | 22786 | 2084 | 0.693 | |
| U | 238.050 | 238.075 | 47388 | 2080 | 0.704 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ag | 106.905 | Linear Thru Zero | 0.03 | 0.00 | 0.999506 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Thursday, October 10, 2019 09:06:39
Report Date/Time: Thursday, October 10, 2019 09:52:24
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 121740.5 | 3.0 | | | | ug/L | | Standard |
| | Y | 89 | 203747.1 | 2.2 | | | | ug/L | | Standard |
| > | Rh | 103 | 185387.1 | 2.8 | | | | ug/L | | Standard |
| | Ag | 107 | 576.3 | 5.5 | | | | ug/L | | Standard |
| | In | 115 | 412121.3 | 1.2 | | | | ug/L | | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Thursday, October 10, 2019 09:08:41
Report Date/Time: Thursday, October 10, 2019 09:52:26
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 132368.9 | 1.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 225698.3 | 1.8 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 204059.3 | 1.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 3316.4 | 3.7 | **1.0046** | 0.049 | 4.9 | ug/L | 576 | Standard |
| | In | 115 | 444778.5 | 0.7 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 3

Sample Date/Time: Thursday, October 10, 2019 09:10:44
Report Date/Time: Thursday, October 10, 2019 09:52:28
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 131370.7 | 1.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 219035.3 | 1.4 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 198353.5 | 1.7 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 11098.6 | 1.8 | **4.0371** | 0.063 | 1.6 | ug/L | 576 | Standard |
| | In | 115 | 438997.7 | 0.2 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 4

Sample Date/Time: Thursday, October 10, 2019 09:12:48
Report Date/Time: Thursday, October 10, 2019 09:52:31
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 133074.7 | 1.7 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 221510.1 | 1.6 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 191753.5 | 1.1 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 26966.8 | 1.7 | **10.4798** | 0.137 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 434070.1 | 0.7 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Thursday, October 10, 2019 09:14:50
Report Date/Time: Thursday, October 10, 2019 09:52:33
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 124248.3 | 0.7 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 204828.5 | 1.5 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 179278.6 | 0.2 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 97116.2 | 2.8 | **39.5223** | 1.097 | 2.8 | ug/L | 576 | Standard |
| | In | 115 | 410893.2 | 1.1 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| | Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|---|
| | | 72 | Ge | | |
| | | 89 | Y | | |
| > | | 103 | Rh | | |
| | | 107 | Ag | | |
| | | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 6

Sample Date/Time: Thursday, October 10, 2019 09:16:53
Report Date/Time: Thursday, October 10, 2019 09:52:35
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 123013.4 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 204592.1 | 1.4 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 178726.0 | 1.9 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 194586.2 | 1.8 | **69.2820** | 0.876 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 411682.0 | 0.1 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 7

Sample Date/Time: Thursday, October 10, 2019 09:18:55
Report Date/Time: Thursday, October 10, 2019 09:52:37
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexIONData\Sample\X191010A.sam
Method File: C:\NexIONData\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 122896.1 | 1.7 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 203870.6 | 2.3 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 184427.1 | 3.5 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 545177.5 | 1.2 | **101.4148** | 2.634 | 2.6 | ug/L | 576 | Standard |
| | In | 115 | 407954.8 | 1.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Thursday, October 10, 2019 09:21:48
Report Date/Time: Thursday, October 10, 2019 09:52:39
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 129340.2 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 219884.5 | 2.2 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 199799.2 | 4.3 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 289862.1 | 2.9 | **49.7092** | 0.728 | 1.5 | ug/L | 576 | Standard |
| | In | 115 | 418393.3 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 107.774 |
| | 107Ag | 99.418 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 2

Sample Date/Time: Thursday, October 10, 2019 09:24:40
Report Date/Time: Thursday, October 10, 2019 09:52:48
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 123403.4 | 1.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 211377.7 | 3.2 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 187166.0 | 1.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 1015.4 | 9.4 | **0.0794** | 0.015 | 18.7 | ug/L | 576 | Standard |
| | In | 115 | 401895.1 | 0.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 100.960 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 4

Sample Date/Time: Thursday, October 10, 2019 09:26:42
Report Date/Time: Thursday, October 10, 2019 09:52:51
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 137734.2 | 0.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 233557.6 | 2.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 211532.6 | 1.7 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 3785.2 | 1.6 | **0.5077** | 0.020 | 3.8 | ug/L | 576 | Standard |
| | In | 115 | 441431.1 | 1.8 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 114.103 |
| | 107Ag | 101.538 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Thursday, October 10, 2019 09:29:35
Report Date/Time: Thursday, October 10, 2019 09:52:54
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 129043.6 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 218510.8 | 0.4 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 191655.8 | 2.3 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 216708.0 | 2.5 | **38.7084** | 0.869 | 2.2 | ug/L | 576 | Standard |
| | In | 115 | 412333.5 | 0.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| | Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|---|
| | | 72 | Ge | | |
| | | 89 | Y | | |
| > | | 103 | Rh | | 103.381 |
| | | 107 | Ag | 96.771 | |
| | | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 10, 2019 09:32:27
Report Date/Time: Thursday, October 10, 2019 09:52:56
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 127770.3 | 1.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 214544.6 | 1.7 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 189446.0 | 2.3 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 1022.7 | 4.5 | 0.0786 | 0.008 | 10.8 | ug/L | 576 | Standard |
| | In | 115 | 412829.5 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 102.189 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Thursday, October 10, 2019 09:34:29
Report Date/Time: Thursday, October 10, 2019 09:52:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 112938.1 | 1.4 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 194921.3 | 1.6 | | | | ug/L | 203747 | Standard |
| [> | Rh | 103 | 162001.6 | 1.8 | | | | ug/L | 185387 | Standard |
| [ | Ag | 107 | 812.0 | 3.4 | **0.0653** | 0.003 | 4.7 | ug/L | 576 | Standard |
| | In | 115 | 371840.3 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| [> | 103 | Rh | | 87.386 |
| [ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSAB

Sample Date/Time: Thursday, October 10, 2019 09:40:12
Report Date/Time: Thursday, October 10, 2019 09:53:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 139707.5 | 0.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 222708.2 | 1.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 199052.2 | 2.1 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 225212.2 | 3.2 | **38.7273** | 0.905 | 2.3 | ug/L | 576 | Standard |
| | In | 115 | 437480.8 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 107.371 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1009SH1 25X**

Sample Date/Time: Thursday, October 10, 2019 09:47:29
Report Date/Time: Thursday, October 10, 2019 09:53:02
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 138140.7 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 215819.0 | 0.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 170062.9 | 2.1 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 898.0 | 3.8 | **0.0745** | 0.003 | 4.5 | ug/L | 576 | Standard |
| | In | 115 | 513542.7 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 91.734 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: SB1009SH1 25X

Sample Date/Time: Thursday, October 10, 2019 10:00:59
Report Date/Time: Thursday, October 10, 2019 10:01:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 144257.1 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 225058.0 | 0.8 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 179834.7 | 1.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 87048.4 | 1.1 | **16.5083** | 0.101 | 0.6 | ug/L | 576 | Standard |
| | In | 115 | 488631.9 | 0.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 97.005 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01 25X

Sample Date/Time: Thursday, October 10, 2019 10:03:50
Report Date/Time: Thursday, October 10, 2019 10:04:20
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 136162.9 | 1.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 238657.4 | 0.8 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 166443.7 | 1.1 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 17823.8 | 2.4 | **3.5691** | 0.097 | 2.7 | ug/L | 576 | Standard |
| | In | 115 | 483300.1 | 0.2 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 89.782 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01D 25X

Sample Date/Time: Thursday, October 10, 2019 10:06:41
Report Date/Time: Thursday, October 10, 2019 10:07:11
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 146254.0 | 1.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 255367.9 | 0.3 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 176185.6 | 1.3 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 21157.7 | 3.9 | **4.0150** | 0.145 | 3.6 | ug/L | 576 | Standard |
| | In | 115 | 532082.5 | 1.0 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 95.037 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01L 125X

Sample Date/Time: Thursday, October 10, 2019 10:09:33
Report Date/Time: Thursday, October 10, 2019 10:10:04
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 141089.4 | 1.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 229357.3 | 1.2 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 190728.0 | 1.6 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 4475.7 | 1.8 | **0.6988** | 0.015 | 2.2 | ug/L | 576 | Standard |
| | In | 115 | 460286.0 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 102.881 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01MS 25X**

Sample Date/Time: Thursday, October 10, 2019 10:12:25
Report Date/Time: Thursday, October 10, 2019 10:12:56
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 147334.9 | 0.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 255580.4 | 1.7 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 179045.0 | 0.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 108270.8 | 0.9 | **20.6488** | 0.088 | 0.4 | ug/L | 576 | Standard |
| | In | 115 | 530460.7 | 1.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 96.579 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01MSD 25X

Sample Date/Time: Thursday, October 10, 2019 10:15:18
Report Date/Time: Thursday, October 10, 2019 10:15:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 143279.6 | 0.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 250024.5 | 1.1 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 172888.6 | 1.2 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 99712.9 | 2.6 | **19.6882** | 0.373 | 1.9 | ug/L | 576 | Standard |
| | In | 115 | 502843.6 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 93.258 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01PS 25X

Sample Date/Time: Thursday, October 10, 2019 10:18:11
Report Date/Time: Thursday, October 10, 2019 10:18:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 138205.1 | 4.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 236705.7 | 3.3 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 167590.7 | 2.5 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 181179.2 | 5.8 | **36.9794** | 1.245 | 3.4 | ug/L | 576 | Standard |
| | In | 115 | 490424.1 | 1.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 90.400 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 10, 2019 10:21:03
Report Date/Time: Thursday, October 10, 2019 10:21:34
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 150132.2 | 1.4 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 259662.3 | 2.1 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 234089.0 | 2.8 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 276941.6 | 1.3 | **40.5122** | 0.728 | 1.8 | ug/L | 576 | Standard |
| | In | 115 | 456905.0 | 1.1 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 126.270 |
| | 107Ag | 101.281 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 10, 2019 10:23:55
Report Date/Time: Thursday, October 10, 2019 10:24:26
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 149182.4 | 2.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 249993.6 | 2.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 230341.1 | 2.2 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 1593.1 | 6.5 | **0.1308** | 0.017 | 13.4 | ug/L | 576 | Standard |
| | In | 115 | 456285.2 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 124.249 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-02 25X

Sample Date/Time: Thursday, October 10, 2019 10:32:10
Report Date/Time: Thursday, October 10, 2019 10:32:41
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 163667.6 | 1.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 312928.6 | 1.8 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 201196.2 | 1.8 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 10889.8 | 3.3 | **1.7508** | 0.037 | 2.1 | ug/L | 576 | Standard |
| | In | 115 | 570509.6 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 108.528 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-03 25X

Sample Date/Time: Thursday, October 10, 2019 10:35:03
Report Date/Time: Thursday, October 10, 2019 10:35:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 159221.2 | 1.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 269344.3 | 1.1 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 200803.6 | 1.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 37114.5 | 2.2 | **6.2385** | 0.185 | 3.0 | ug/L | 576 | Standard |
| | In | 115 | 574370.8 | 2.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 108.316 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-04 25X

Sample Date/Time: Thursday, October 10, 2019 10:37:54
Report Date/Time: Thursday, October 10, 2019 10:38:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 161569.3 | 1.0 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 258320.6 | 1.4 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 203787.8 | 3.1 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 33390.3 | 2.7 | **5.5177** | 0.055 | 1.0 | ug/L | 576 | Standard |
| | In | 115 | 558564.8 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 109.926 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-05 25X

Sample Date/Time: Thursday, October 10, 2019 10:40:45
Report Date/Time: Thursday, October 10, 2019 10:41:16
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 158259.2 | 1.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 266178.3 | 1.7 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 194341.4 | 2.2 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 39329.8 | 2.6 | **6.8410** | 0.205 | 3.0 | ug/L | 576 | Standard |
| | In | 115 | 577080.1 | 0.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 104.830 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-06 25X**

Sample Date/Time: Thursday, October 10, 2019 10:43:37
Report Date/Time: Thursday, October 10, 2019 10:44:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 175787.9 | 0.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 316012.6 | 1.1 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 210981.8 | 2.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 15767.7 | 3.2 | **2.4584** | 0.054 | 2.2 | ug/L | 576 | Standard |
| | In | 115 | 601688.0 | 1.1 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 113.806 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-07 25X

Sample Date/Time: Thursday, October 10, 2019 10:46:28
Report Date/Time: Thursday, October 10, 2019 10:46:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 172805.2 | 0.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 312392.8 | 0.7 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 205133.0 | 0.5 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 12235.6 | 0.5 | 1.9406 | 0.004 | 0.2 | ug/L | 576 | Standard |
| | In | 115 | 605043.8 | 1.2 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 110.651 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-08 25X**

Sample Date/Time: Thursday, October 10, 2019 10:49:19
Report Date/Time: Thursday, October 10, 2019 10:49:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 170868.5 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 328681.9 | 1.7 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 202689.9 | 2.2 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 10865.5 | 3.2 | **1.7330** | 0.022 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 596689.8 | 1.0 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 109.333 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-09 25X

Sample Date/Time: Thursday, October 10, 2019 10:52:09
Report Date/Time: Thursday, October 10, 2019 10:52:39
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 163368.9 | 1.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 320046.5 | 0.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 196687.6 | 1.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 8310.1 | 4.8 | 1.3436 | 0.071 | 5.3 | ug/L | 576 | Standard |
| | In | 115 | 574506.2 | 1.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 106.096 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 10, 2019 10:58:38
Report Date/Time: Thursday, October 10, 2019 10:59:09
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 158016.1 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 264593.3 | 0.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 237403.6 | 1.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 280028.5 | 1.2 | **40.3823** | 0.532 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 477719.8 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 128.058 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 10, 2019 11:01:31
Report Date/Time: Thursday, October 10, 2019 11:02:02
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 145242.0 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 237135.7 | 0.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 217019.7 | 0.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 951.4 | 3.5 | **0.0437** | 0.005 | 10.3 | ug/L | 576 | Standard |
| | In | 115 | 430733.2 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 117.063 |
| | 107 | Ag | | |
| | 115 | In | | |

# Dataset Report

10-10-19
KDM

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexIONData\DataSet\X191009B\
Report Date/Time: Thursday, October 10, 2019 11:43:10

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| | Sample | 12:49:11 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\Sample.001 | |
| | Sample | 12:53:16 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\Sample.002 | |
| | Blank | 12:58:52 Wed 09- | Blank | C:\NexIONData\DataSet\X191009B\Blank.003 | |
| | Blank | 13:02:08 Wed 09- | Blank | C:\NexIONData\DataSet\X191009B\Blank.004 | |
| | Standard 2 | 13:05:23 Wed 09- | Standard #2 | C:\NexIONData\DataSet\X191009B\Standard 2.005 | |
| | Standard 3 | 13:08:38 Wed 09- | Standard #3 | C:\NexIONData\DataSet\X191009B\Standard 3.006 | |
| | Standard 4 | 13:11:53 Wed 09- | Standard #4 | C:\NexIONData\DataSet\X191009B\Standard 4.007 | |
| | Standard 5 | 13:15:08 Wed 09- | Standard #5 | C:\NexIONData\DataSet\X191009B\Standard 5.008 | |
| | Standard 6 | 13:18:24 Wed 09- | Standard #6 | C:\NexIONData\DataSet\X191009B\Standard 6.009 | |
| | Standard 7 | 13:21:39 Wed 09- | Standard #7 | C:\NexIONData\DataSet\X191009B\Standard 7.010 | |
| | QC Std 1 | 13:33:32 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\QC Std 1.012 | |
| | QC Std 2 | 13:37:36 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\QC Std 2.013 | |
| | QC Std 3 | 13:41:40 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\QC Std 3.014 | |
| | QC Std 4 | 13:45:45 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\QC Std 4.015 | |
| | QC Std 6 | 13:49:49 Wed 09- | QC Std #6 | C:\NexIONData\DataSet\X191009B\QC Std 6.016 | |
| | QC Std 8 | 13:53:54 Wed 09- | QC Std #8 | C:\NexIONData\DataSet\X191009B\QC Std 8.017 | |
| | ICSA | 13:57:28 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\ICSA.018 | |
| | ICSAB | 14:01:32 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\ICSAB.019 | |
| | MB1009SM1 5X | 14:05:42 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\MB1009SM1 5X.020 | |
| | SB1009SM1 50X | 14:09:46 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\SB1009SM1 50X.021 | |
| | 10-077-01 10X | 14:13:49 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01 10X.022 | |
| | 10-077-01D 10X | 14:17:53 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01D 10X.023 | |
| | 10-077-01L 50X | 14:21:57 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01L 50X.024 | |
| | 10-077-01MS 50X | 14:26:01 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01MS 50X.025 | |
| | 10-077-01MSD 50X | 14:30:05 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01MSD 50X.026 | |
| | 10-077-01PS 10X | 14:34:09 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01PS 10X.027 | |
| | QC Std 6 | 14:38:13 Wed 09- | QC Std #6 | C:\NexIONData\DataSet\X191009B\QC Std 6.028 | |
| | QC Std 8 | 14:42:18 Wed 09- | QC Std #8 | C:\NexIONData\DataSet\X191009B\QC Std 8.029 | |
| | 10-077-01 50X | 14:47:12 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01 50X.030 | |
| | 10-077-01D 50X | 14:51:16 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01D 50X.031 | |
| | 10-077-01L 250X | 14:55:19 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01L 250X.032 | |
| | 10-077-01PS 50X | 14:59:22 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-01PS 50X.033 | |
| | 10-077-02 50X | 15:06:00 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-02 50X.034 | |
| | 10-077-03 50X | 15:10:03 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-03 50X.035 | |
| | 10-077-04 50X | 15:14:06 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-04 50X.036 | |
| | 10-077-05 50X | 15:18:08 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-05 50X.037 | |
| | 10-077-06 50X | 15:22:12 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-06 50X.038 | |
| | 10-077-07 50X | 15:26:16 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-07 50X.039 | |
| | QC Std 6 | 15:30:20 Wed 09- | QC Std #6 | C:\NexIONData\DataSet\X191009B\QC Std 6.040 | |
| | QC Std 8 | 15:34:24 Wed 09- | QC Std #8 | C:\NexIONData\DataSet\X191009B\QC Std 8.041 | |
| | 10-077-08 50X | 15:38:25 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-08 50X.042 | |
| | 10-077-09 50X | 15:42:28 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-09 50X.043 | |
| | 10-112-01 50X | 15:46:32 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-112-01 50X.044 | |
| | 10-112-02 50X | 15:50:35 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-112-02 50X.045 | |
| | 10-112-03 50X | 15:54:39 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-112-03 50X.046 | |
| | 10-112-04 50X | 15:58:42 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-112-04 50X.047 | |
| | 10-112-05 50X | 16:02:45 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-112-05 50X.048 | |
| | 10-112-06 50X | 16:06:48 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-112-06 50X.049 | |
| | 10-077-02 10X | 16:10:51 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-02 10X.050 | |
| | 10-077-03 20X | 16:14:53 Wed 09- | Sample | C:\NexIONData\DataSet\X191009B\10-077-03 20X.051 | |

| | | |
|---|---|---|
| QC Std 6 | 16:18:56 Wed 09-(QC Std #6 | C:\NexION Data\DataSet\X191009B\QC Std 6.052 |
| QC Std 8 | 16:23:01 Wed 09-(QC Std #8 | C:\NexION Data\DataSet\X191009B\QC Std 8.053 |
| 10-077-05 20X | 16:28:16 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-05 20X.054 |
| 10-077-06 20X | 16:32:19 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-06 20X.055 |
| 10-077-07 10X | 16:36:24 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-07 10X.056 |
| 10-077-08 20X | 16:40:28 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-08 20X.057 |
| 10-077-09 10X | 16:44:32 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-09 10X.058 |
| 10-112-01 10X | 16:48:35 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-01 10X.059 |
| 10-112-02 10X | 16:52:38 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-02 10X.060 |
| 10-112-03 10X | 16:56:42 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-03 10X.061 |
| 10-112-04 10X | 17:00:45 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-04 10X.062 |
| 10-112-05 10X | 17:04:49 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-05 10X.063 |
| QC Std 6 | 17:08:53 Wed 09-(QC Std #6 | C:\NexION Data\DataSet\X191009B\QC Std 6.064 |
| QC Std 8 | 17:12:57 Wed 09-(QC Std #8 | C:\NexION Data\DataSet\X191009B\QC Std 8.065 |
| 10-112-06 10X | 17:16:11 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-06 10X.066 |
| 10-077-08 10X | 17:20:14 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-08 10X.067 |
| QC Std 6 | 17:24:17 Wed 09-(QC Std #6 | C:\NexION Data\DataSet\X191009B\QC Std 6.068 |
| QC Std 8 | 17:28:21 Wed 09-(QC Std #8 | C:\NexION Data\DataSet\X191009B\QC Std 8.069 |

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Wednesday, October 09, 2019 09:42:24
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191009A\Daily Performance Check.006
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 5895.3 | 5895.284 | 184.457 | 3.1 | Standard |
| | Mg | 24.0 | 43109.8 | 43109.780 | 1883.817 | 4.4 | Standard |
| | In | 114.9 | 51722.5 | 51722.489 | 952.661 | 1.8 | Standard |
| | U | 238.1 | 58392.2 | 58392.169 | 524.945 | 0.9 | Standard |
| ⌈ | CeO | 155.9 | 1030.6 | 0.024 | 0.001 | 2.5 | Standard |
| \| > | Ce | 139.9 | 43803.1 | 43803.076 | 924.870 | 2.1 | Standard |
| ⌊ | Ce++ | 70.0 | 173.1 | 0.004 | 0.000 | 5.2 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 0.99 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 0.99 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/9/2019 9:42:23 AM
End Time: 10/9/2019 9:44:43 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5895.28
Obtained Intensity (Mg 23.985): 43109.78
Obtained Intensity (In 114.904): 51722.49
Obtained Intensity (U 238.05): 58392.17
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.024 (=1030.64 / 43803.08)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=173.07 / 43803.08)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/9/2019 9:42:23 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 5895.28
Obtained Intensity (Mg 23.985): 43109.78
Obtained Intensity (In 114.904): 51722.49
Obtained Intensity (U 238.05): 58392.17
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.024 (=1030.64 / 43803.08)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=173.07 / 43803.08)

[Passed] Optimum value(s): N/A

End Time: 10/9/2019 9:44:43 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexION\Data\MassCal\Default.tun
Acq. Date/Time: 09:49:11 Wed 09-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 6.975 | 1207 | 2081 | 0.706 | |
| Mg | 23.985 | 24.025 | 4617 | 2084 | 0.698 | |
| In | 114.904 | 114.925 | 22782 | 2084 | 0.694 | |
| U | 238.050 | 238.025 | 47384 | 2080 | 0.708 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Se | 76.920 | Linear Thru Zero | 0.00 | 0.00 | 0.999979 |
| Se | 77.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999957 |
| Br | 78.918 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Se | 81.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999909 |
| Kr | 82.914 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ba | 134.906 | Linear Thru Zero | 0.01 | 0.00 | 0.999996 |
| Ba | 136.905 | Linear Thru Zero | 0.01 | 0.00 | 0.999996 |
| Tb | 158.925 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ho | 164.930 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Pb | 207.977 | Linear Thru Zero | 0.09 | 0.00 | 0.999987 |
| Ge-1 | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| As-2 | 74.922 | Linear Thru Zero | 0.01 | 0.00 | 0.999893 |
| Y-1 | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Quantitative Analysis - Summary Report

## Sample ID: Blank

Sample Date/Time: Wednesday, October 09, 2019 13:02:08
Report Date/Time: Thursday, October 10, 2019 11:39:39
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149430.4 | 2.4 | | | | ug/L | | Standard |
| | Se | 77 | 14.7 | 14.2 | | | | ug/L | | Standard |
| | Se | 78 | 988.7 | 2.9 | | | | ug/L | | Standard |
| | Br | 79 | 66.7 | 7.5 | | | | ug/L | | Standard |
| | Se | 82 | 29.0 | 10.3 | | | | ug/L | | Standard |
| | Kr | 83 | 18.3 | 22.0 | | | | ug/L | | Standard |
| | Y | 89 | 281095.6 | 4.3 | | | | ug/L | | Standard |
| | Ba | 135 | 93.7 | 6.8 | | | | ug/L | | Standard |
| | Ba | 137 | 169.3 | 2.2 | | | | ug/L | | Standard |
| > | Tb | 159 | 490334.0 | 0.1 | | | | ug/L | | Standard |
| | Ho | 165 | 511924.9 | 1.3 | | | | ug/L | | Standard |
| | Pb | 208 | 2723.8 | 0.3 | | | | ug/L | | Standard |
| > | Ge-1 | 72 | 7806.1 | 4.2 | | | | ug/L | | KED |
| | As-2 | 75 | 1.3 | 43.3 | | | | ug/L | | KED |
| | Y-1 | 89 | 12626.6 | 2.5 | | | | ug/L | | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Wednesday, October 09, 2019 13:05:23
Report Date/Time: Thursday, October 10, 2019 11:39:41
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150979.7 | 0.7 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 29.3 | 12.0 | 0.5000 | 0.128 | 25.6 | ug/L | 15 | Standard |
| | Se | 78 | 1045.0 | 4.4 | | | | ug/L | 989 | Standard |
| | Br | 79 | 69.0 | 8.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 79.3 | 7.3 | 0.5000 | 0.055 | 11.0 | ug/L | 29 | Standard |
| | Kr | 83 | 16.7 | 3.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 287310.5 | 6.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 1392.1 | 1.0 | 0.5000 | 0.007 | 1.4 | ug/L | 94 | Standard |
| | Ba | 137 | 2287.5 | 2.8 | 0.5000 | 0.014 | 2.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 484317.6 | 0.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 507203.4 | 0.5 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 23401.3 | 1.4 | 0.5000 | 0.010 | 1.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7671.7 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 20.3 | 28.0 | 0.5000 | 0.154 | 30.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 12582.5 | 1.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 3

Sample Date/Time: Wednesday, October 09, 2019 13:08:38
Report Date/Time: Thursday, October 10, 2019 11:39:44
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149989.0 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 89.7 | 13.4 | 2.0274 | 0.339 | 16.7 | ug/L | 15 | Standard |
| | Se | 78 | 1234.7 | 2.0 | 2.0000 | 0.198 | 9.9 | ug/L | 989 | Standard |
| | Br | 79 | 64.7 | 6.2 | | | | ug/L | 67 | Standard |
| | Se | 82 | 252.7 | 4.3 | 2.0132 | 0.120 | 6.0 | ug/L | 29 | Standard |
| | Kr | 83 | 19.0 | 18.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 289875.7 | 2.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 5255.3 | 0.6 | 1.9995 | 0.012 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 8845.7 | 0.8 | 2.0030 | 0.029 | 1.5 | ug/L | 169 | Standard |
| > | Tb | 159 | 483030.3 | 0.7 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 499183.1 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 89566.1 | 0.4 | 2.0058 | 0.018 | 0.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7685.1 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 105.3 | 14.4 | 2.0320 | 0.329 | 16.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 12567.2 | 3.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 4

Sample Date/Time: Wednesday, October 09, 2019 13:11:53
Report Date/Time: Thursday, October 10, 2019 11:39:46
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 158661.6 | 0.4 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 221.0 | 5.9 | **5.0349** | 0.316 | 6.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 1706.4 | 4.8 | **5.0168** | 0.659 | 13.1 | ug/L | 989 | Standard |
| | **Br** | 79 | 71.3 | 11.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 565.3 | 5.0 | **4.9289** | 0.259 | 5.3 | ug/L | 29 | Standard |
| | **Kr** | 83 | 20.3 | 33.5 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 292822.0 | 3.3 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 13484.0 | 2.9 | **5.0087** | 0.126 | 2.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 22653.6 | 0.4 | **5.0092** | 0.061 | 1.2 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 494922.7 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 518967.3 | 0.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 231863.5 | 1.2 | **5.0230** | 0.088 | 1.8 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7825.8 | 2.2 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 241.3 | 2.3 | **4.9368** | 0.115 | 2.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12892.8 | 4.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Wednesday, October 09, 2019 13:15:08
Report Date/Time: Thursday, October 10, 2019 11:39:49
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 150402.5 | 2.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 753.4 | 3.4 | **19.9356** | 0.421 | 2.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 3462.4 | 3.7 | **19.9917** | 0.791 | 4.0 | ug/L | 989 | Standard |
| | **Br** | 79 | 62.7 | 17.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 2157.5 | 4.4 | **20.0467** | 0.940 | 4.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 21.3 | 2.7 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 289488.8 | 0.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 52752.2 | 0.6 | **20.0428** | 0.152 | 0.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 87383.5 | 0.9 | **20.0244** | 0.046 | 0.2 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 472264.5 | 0.8 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 493649.4 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 874380.9 | 0.8 | **20.0019** | 0.269 | 1.3 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7590.7 | 2.4 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 912.4 | 4.1 | **19.9518** | 0.491 | 2.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12243.9 | 3.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 6

Sample Date/Time: Wednesday, October 09, 2019 13:18:24
Report Date/Time: Thursday, October 10, 2019 11:39:51
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 146100.7 | 1.1 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1479.7 | 2.0 | **40.1499** | 0.424 | 1.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 6003.3 | 6.0 | **40.4073** | 2.504 | 6.2 | ug/L | 989 | Standard |
| | **Br** | 79 | 75.0 | 3.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4262.6 | 4.0 | **40.2155** | 1.190 | 3.0 | ug/L | 29 | Standard |
| | **Kr** | 83 | 23.7 | 19.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 278354.5 | 2.1 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 103262.9 | 0.4 | **39.9056** | 0.187 | 0.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 175311.1 | 0.3 | **40.1071** | 0.343 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 468794.1 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 487117.8 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1725346.0 | 0.8 | **39.9614** | 0.199 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7401.6 | 2.2 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1780.8 | 1.8 | **39.9951** | 0.425 | 1.1 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12097.8 | 0.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 7

Sample Date/Time: Wednesday, October 09, 2019 13:21:39
Report Date/Time: Thursday, October 10, 2019 11:39:52
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 151934.1 | 1.5 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 3759.5 | 1.4 | **99.7720** | 0.132 | 0.1 | ug/L | 15 | Standard |
| | Se | 78 | 13818.7 | 4.6 | **99.8047** | 3.698 | 3.7 | ug/L | 989 | Standard |
| | Br | 79 | 75.0 | 8.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 10623.3 | 5.4 | **99.4353** | 4.182 | 4.2 | ug/L | 29 | Standard |
| | Kr | 83 | 21.7 | 20.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 290200.5 | 4.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 261051.6 | 0.6 | **100.0798** | 0.748 | 0.7 | ug/L | 94 | Standard |
| | Ba | 137 | 440540.2 | 0.2 | **100.0637** | 0.393 | 0.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 470938.0 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 494331.9 | 1.7 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 4276981.4 | 0.8 | **99.7784** | 1.165 | 1.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7298.2 | 2.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 4562.4 | 3.0 | **100.6472** | 1.596 | 1.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 12157.5 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 1

Sample Date/Time: Wednesday, October 09, 2019 13:33:32
Report Date/Time: Thursday, October 10, 2019 11:39:55
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164575.8 | 3.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 2063.1 | 4.0 | **50.3534** | 1.362 | 2.7 | ug/L | 15 | Standard |
| | Se | 78 | 8438.2 | 4.9 | **52.8472** | 1.675 | 3.2 | ug/L | 989 | Standard |
| | Br | 79 | 64.3 | 5.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 6087.3 | 2.4 | **52.4965** | 0.687 | 1.3 | ug/L | 29 | Standard |
| | Kr | 83 | 25.3 | 17.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 346495.1 | 4.0 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 144547.0 | 0.6 | **51.5131** | 0.598 | 1.2 | ug/L | 94 | Standard |
| | Ba | 137 | 242429.2 | 1.2 | **51.1824** | 0.169 | 0.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 506481.9 | 1.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 529029.7 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2383496.9 | 1.4 | **51.6830** | 1.351 | 2.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7981.6 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2511.6 | 3.2 | **50.6469** | 1.507 | 3.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 13549.4 | 2.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.135 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.293 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 102.247 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 2

Sample Date/Time: Wednesday, October 09, 2019 13:37:36
Report Date/Time: Thursday, October 10, 2019 11:40:05
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 156525.3 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 15.7 | 45.3 | **0.0081** | 0.185 | 2291.7 | ug/L | 15 | Standard |
| | **Se** | 78 | 1043.7 | 5.4 | **0.0609** | 0.411 | 674.4 | ug/L | 989 | Standard |
| | **Br** | 79 | 74.3 | 3.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 28.3 | 26.7 | **-0.0191** | 0.065 | 341.5 | ug/L | 29 | Standard |
| | **Kr** | 83 | 26.0 | 6.7 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 310638.6 | 3.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 93.0 | 7.8 | **0.0009** | 0.002 | 291.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 158.3 | 1.8 | **-0.0013** | 0.001 | 78.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 474989.6 | 1.3 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 496335.7 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 2657.8 | 1.9 | **0.0005** | 0.002 | 359.3 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7569.3 | 3.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 3.3 | 17.3 | **0.0434** | 0.012 | 27.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12636.9 | 2.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 104.748 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 96.871 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 96.967 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 09, 2019 13:41:40
Report Date/Time: Thursday, October 10, 2019 11:40:07
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 154779.7 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 89.7 | 6.5 | **1.9468** | 0.124 | 6.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 1327.1 | 3.0 | **2.3162** | 0.228 | 9.8 | ug/L | 989 | Standard |
| | **Br** | 79 | 65.3 | 14.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 248.7 | 3.3 | **2.0147** | 0.052 | 2.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 25.7 | 35.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 314841.0 | 2.6 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 5184.9 | 0.7 | **1.9330** | 0.011 | 0.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 8722.3 | 0.5 | **1.9241** | 0.013 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 475947.2 | 0.2 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 495426.7 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 87986.1 | 1.0 | **1.9711** | 0.016 | 0.8 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7338.6 | 2.0 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 91.0 | 14.4 | **1.9670** | 0.255 | 13.0 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12403.4 | 1.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 103.580 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 97.066 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 94.010 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 09, 2019 13:45:45
Report Date/Time: Thursday, October 10, 2019 11:40:09
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 156383.4 | 1.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 37.0 | 2.7 | **0.5607** | 0.035 | 6.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 1189.0 | 7.6 | **1.1641** | 0.574 | 49.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 67.3 | 9.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 88.3 | 4.6 | **0.5292** | 0.042 | 8.0 | ug/L | 29 | Standard |
| | **Kr** | 83 | 22.3 | 10.3 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 310920.6 | 2.3 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 1385.7 | 1.0 | **0.4918** | 0.006 | 1.1 | ug/L | 94 | Standard |
| | **Ba** | 137 | 2269.8 | 1.1 | **0.4738** | 0.008 | 1.8 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 475539.1 | 0.6 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 500903.1 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 23240.5 | 1.9 | **0.4762** | 0.012 | 2.6 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7516.0 | 1.6 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 26.3 | 24.7 | **0.5374** | 0.143 | 26.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12484.5 | 2.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 104.653 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 96.983 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 96.283 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 13:49:49
Report Date/Time: Thursday, October 10, 2019 11:40:11
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 152293.7 | 3.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1556.4 | 4.6 | **40.9696** | 1.106 | 2.7 | ug/L | 15 | Standard |
| | Se | 78 | 6413.8 | 3.5 | **42.0218** | 0.877 | 2.1 | ug/L | 989 | Standard |
| | Br | 79 | 60.3 | 15.0 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4425.0 | 1.0 | **41.1906** | 0.907 | 2.2 | ug/L | 29 | Standard |
| | Kr | 83 | 22.3 | 5.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 302043.9 | 5.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 103240.7 | 0.5 | **40.7104** | 0.328 | 0.8 | ug/L | 94 | Standard |
| | Ba | 137 | 173247.2 | 0.7 | **40.4744** | 0.452 | 1.1 | ug/L | 169 | Standard |
| > | Tb | 159 | 457650.8 | 1.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 478465.7 | 0.5 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1690876.8 | 0.7 | **40.5614** | 0.802 | 2.0 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7273.9 | 3.3 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1713.8 | 1.8 | **37.9509** | 1.816 | 4.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 12092.5 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 101.916 |
| | 77 | Se | 102.424 | |
| | 78 | Se | 105.055 | |
| | 79 | Br | | |
| | 82 | Se | 102.977 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 101.776 | |
| | 137 | Ba | 101.186 | |
| > | 159 | Tb | | 93.335 |
| | 165 | Ho | | |
| | 208 | Pb | 101.403 | |
| > | 72 | Ge-1 | | 93.181 |
| | 75 | As-2 | 94.877 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Wednesday, October 09, 2019 13:53:54
Report Date/Time: Thursday, October 10, 2019 11:40:14
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 158663.0 | 2.7 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 17.3 | 8.8 | **0.0458** | 0.051 | 111.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1118.4 | 2.6 | **0.5120** | 0.049 | 9.5 | ug/L | 989 | Standard |
| | **Br** | 79 | 69.7 | 12.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 31.0 | 34.0 | **0.0009** | 0.089 | 9418.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 21.3 | 25.8 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 314131.6 | 1.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 88.3 | 0.7 | **-0.0007** | 0.000 | 12.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 164.0 | 2.7 | **0.0002** | 0.001 | 470.2 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 471841.7 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 489971.9 | 0.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 2608.8 | 1.7 | **-0.0003** | 0.001 | 280.2 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7429.3 | 1.6 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2.0 | 50.0 | **0.0160** | 0.022 | 137.1 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12545.8 | 1.3 | | | | ug/L | 12627 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.179 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 96.229 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 95.172 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Wednesday, October 09, 2019 13:57:28
Report Date/Time: Thursday, October 10, 2019 11:40:17
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 132647.7 | 1.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 204.3 | 1.7 | **5.8389** | 0.108 | 1.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 1495.7 | 4.6 | **5.5214** | 0.758 | 13.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 1717.4 | 3.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 44.7 | 26.2 | **0.2045** | 0.132 | 64.4 | ug/L | 29 | Standard |
| | **Kr** | 83 | 93.7 | 5.5 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 245729.4 | 0.6 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 56.0 | 13.5 | **-0.0120** | 0.003 | 24.1 | ug/L | 94 | Standard |
| | **Ba** | 137 | 76.7 | 12.9 | **-0.0187** | 0.003 | 13.5 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 449432.2 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 456498.1 | 0.6 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1770.4 | 0.8 | **-0.0178** | 0.001 | 4.2 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 6291.4 | 1.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2.7 | 43.3 | **0.0410** | 0.031 | 74.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 10844.1 | 4.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 88.769 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 91.658 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 80.595 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSAB

Sample Date/Time: Wednesday, October 09, 2019 14:01:32
Report Date/Time: Thursday, October 10, 2019 11:40:19
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 137012.4 | 1.9 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1611.4 | 5.2 | **47.1942** | 1.588 | 3.4 | ug/L | 15 | Standard |
| | Se | 78 | 6388.4 | 5.6 | **47.3370** | 2.095 | 4.4 | ug/L | 989 | Standard |
| | Br | 79 | 1871.5 | 3.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 3767.2 | 2.7 | **38.9426** | 0.585 | 1.5 | ug/L | 29 | Standard |
| | Kr | 83 | 94.3 | 8.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 258875.5 | 3.6 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 96722.3 | 0.1 | **37.0081** | 0.148 | 0.4 | ug/L | 94 | Standard |
| | Ba | 137 | 163974.5 | 1.6 | **37.1702** | 0.531 | 1.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 471581.7 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 483322.7 | 0.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1507379.5 | 0.4 | **35.0781** | 0.290 | 0.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 6576.5 | 2.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1576.1 | 3.4 | **38.5589** | 0.463 | 1.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 11781.2 | 1.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.690 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 96.176 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 84.248 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: MB1009SM1 5X

Sample Date/Time: Wednesday, October 09, 2019 14:05:42
Report Date/Time: Thursday, October 10, 2019 11:40:50
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 149247.0 | 1.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 71.3 | 7.1 | **1.5376** | 0.137 | 8.9 | ug/L | 15 | Standard |
| | **Se** | 78 | 1080.0 | 6.7 | **0.7373** | 0.632 | 85.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 155.3 | 7.4 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 30.7 | 10.5 | **0.0161** | 0.029 | 178.3 | ug/L | 29 | Standard |
| | **Kr** | 83 | 30.3 | 15.6 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 273261.8 | 2.0 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 318.0 | 1.7 | **0.0936** | 0.003 | 2.7 | ug/L | 94 | Standard |
| | **Ba** | 137 | 537.0 | 4.7 | **0.0912** | 0.005 | 5.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 448361.4 | 1.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 465514.7 | 1.7 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 2174.7 | 0.1 | **-0.0077** | 0.001 | 7.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7269.2 | 2.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1.7 | 124.9 | **0.0096** | 0.047 | 490.4 | ug/L | 1 | KED |
| | **Y-1** | 89 | 11944.0 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 99.877 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 91.440 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 93.121 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1009SM1 50X**

Sample Date/Time: Wednesday, October 09, 2019 14:09:46
Report Date/Time: Thursday, October 10, 2019 11:40:52
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 159447.9 | 0.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1699.4 | 1.0 | **42.7504** | 0.574 | 1.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 6838.3 | 3.0 | **42.9328** | 1.364 | 3.2 | ug/L | 989 | Standard |
| | **Br** | 79 | 99.0 | 4.6 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4845.2 | 2.0 | **43.0717** | 0.931 | 2.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 25.3 | 9.9 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 323319.3 | 1.9 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 103597.6 | 1.0 | **38.8810** | 0.573 | 1.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 174671.4 | 0.8 | **38.8368** | 0.232 | 0.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 480809.8 | 0.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 498113.9 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 4183659.4 | 0.7 | **95.5920** | 0.642 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7734.8 | 1.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1814.1 | 3.5 | **37.7402** | 1.097 | 2.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12853.5 | 3.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.704 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 98.058 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 99.086 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01 10X

Sample Date/Time: Wednesday, October 09, 2019 14:13:49
Report Date/Time: Thursday, October 10, 2019 11:40:53
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 157005.8 | 2.8 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 68.3 | 12.2 | **1.3646** | 0.212 | 15.6 | ug/L | 15 | Standard |
| | **Se** | 78 | 1140.7 | 3.1 | **0.7676** | 0.029 | 3.8 | ug/L | 989 | Standard |
| | **Br** | 79 | 320.7 | 1.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 100.0 | 16.6 | **0.6295** | 0.125 | 19.8 | ug/L | 29 | Standard |
| | **Kr** | 83 | 60.7 | 3.8 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 348355.9 | 2.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 399985.0 | 1.1 | **142.8488** | 1.857 | 1.3 | ug/L | 94 | Standard |
| | **Ba** | 137 | 674936.9 | 0.8 | **142.8099** | 0.638 | 0.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 505590.0 | 0.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 515893.1 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 625779.1 | 1.1 | **13.5449** | 0.088 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7632.7 | 2.1 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 3802.2 | 1.7 | **80.2062** | 1.736 | 2.2 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16562.6 | 1.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 105.070 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.111 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 97.778 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01D 10X

Sample Date/Time: Wednesday, October 09, 2019 14:17:53
Report Date/Time: Thursday, October 10, 2019 11:40:56
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 159708.3 | 2.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 78.7 | 9.4 | **1.5963** | 0.175 | 10.9 | ug/L | 15 | Standard |
| | **Se** | 78 | 1142.7 | 9.4 | **0.6377** | 0.774 | 121.4 | ug/L | 989 | Standard |
| | **Br** | 79 | 312.7 | 4.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 95.3 | 4.0 | **0.5750** | 0.042 | 7.4 | ug/L | 29 | Standard |
| | **Kr** | 83 | 59.0 | 10.3 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 344587.0 | 3.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 383067.2 | 1.9 | **135.0552** | 1.362 | 1.0 | ug/L | 94 | Standard |
| | **Ba** | 137 | 638824.2 | 1.0 | **133.4512** | 0.934 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 512107.4 | 1.2 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 518321.4 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 607528.0 | 0.9 | **12.9807** | 0.087 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7614.0 | 2.4 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 3556.4 | 3.3 | **75.2197** | 3.194 | 4.2 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16481.2 | 1.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.878 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.441 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 97.539 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01L 50X

Sample Date/Time: Wednesday, October 09, 2019 14:21:57
Report Date/Time: Thursday, October 10, 2019 11:40:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 166519.1 | 1.8 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 29.7 | 7.0 | **0.3246** | 0.062 | 19.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1178.0 | 6.2 | **0.5380** | 0.365 | 67.8 | ug/L | 989 | Standard |
| | **Br** | 79 | 133.3 | 5.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 38.0 | 24.1 | **0.0478** | 0.072 | 150.9 | ug/L | 29 | Standard |
| | **Kr** | 83 | 29.0 | 13.8 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 323964.6 | 1.3 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 83737.4 | 0.9 | **30.3351** | 0.384 | 1.3 | ug/L | 94 | Standard |
| | **Ba** | 137 | 141688.6 | 1.4 | **30.4098** | 0.512 | 1.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 497987.1 | 0.3 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 515422.4 | 0.8 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 135373.2 | 0.7 | **2.9273** | 0.021 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7786.1 | 1.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 758.7 | 1.8 | **15.6692** | 0.510 | 3.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14038.9 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 111.436 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 101.561 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 99.744 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01MS 50X

Sample Date/Time: Wednesday, October 09, 2019 14:26:01
Report Date/Time: Thursday, October 10, 2019 11:41:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 161302.0 | 1.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1573.1 | 1.0 | **39.0868** | 0.576 | 1.5 | ug/L | 15 | Standard |
| | **Se** | 78 | 6261.7 | 0.9 | **38.1287** | 0.892 | 2.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 134.7 | 10.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4271.3 | 5.5 | **37.5033** | 2.153 | 5.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 32.0 | 5.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 321733.4 | 1.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 185059.0 | 1.0 | **68.0716** | 0.411 | 0.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 308840.7 | 1.2 | **67.3049** | 0.360 | 0.5 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 490752.1 | 1.2 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 506993.0 | 1.5 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 4179192.1 | 0.9 | **93.5612** | 1.265 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7886.5 | 2.9 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2564.6 | 2.8 | **52.3900** | 2.869 | 5.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14195.7 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 107.945 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 100.085 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 101.030 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01MSD 50X

Sample Date/Time: Wednesday, October 09, 2019 14:30:05
Report Date/Time: Thursday, October 10, 2019 11:41:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 160060.7 | 0.7 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1624.1 | 2.8 | **40.6829** | 1.336 | 3.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 6433.4 | 3.8 | **39.7450** | 1.695 | 4.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 136.0 | 3.4 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4187.9 | 3.2 | **37.0450** | 1.058 | 2.9 | ug/L | 29 | Standard |
| | **Kr** | 83 | 34.0 | 35.7 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 309337.7 | 2.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 179064.7 | 1.1 | **66.3865** | 0.637 | 1.0 | ug/L | 94 | Standard |
| | **Ba** | 137 | 299386.5 | 1.6 | **65.7561** | 0.229 | 0.3 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 486924.3 | 1.6 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 500722.3 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 4169040.6 | 0.6 | **94.0715** | 1.081 | 1.1 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7948.5 | 2.1 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2479.2 | 2.9 | **50.2319** | 2.408 | 4.8 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14127.7 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 107.114 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.305 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 101.824 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01PS 10X

Sample Date/Time: Wednesday, October 09, 2019 14:34:09
Report Date/Time: Thursday, October 10, 2019 11:41:06
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 152208.4 | 1.8 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1613.4 | 0.5 | **42.5244** | 0.920 | 2.2 | ug/L | 15 | Standard |
| | **Se** | 78 | 6292.1 | 1.5 | **41.1042** | 0.422 | 1.0 | ug/L | 989 | Standard |
| | **Br** | 79 | 342.7 | 2.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4036.9 | 3.5 | **37.5778** | 1.901 | 5.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 62.0 | 9.7 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 350873.9 | 4.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 509032.6 | 1.1 | **180.5774** | 2.851 | 1.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 862371.4 | 2.0 | **181.2272** | 1.575 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 509092.8 | 1.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 512201.6 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 2194994.7 | 0.4 | **47.3453** | 0.736 | 1.6 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7449.9 | 1.9 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 5641.4 | 0.2 | **121.9408** | 2.080 | 1.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16597.6 | 1.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 101.859 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.826 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 95.437 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 14:38:13
Report Date/Time: Thursday, October 10, 2019 11:41:08
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166577.0 | 4.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1645.4 | 2.2 | **39.6247** | 1.167 | 2.9 | ug/L | 15 | Standard |
| | Se | 78 | 6885.3 | 4.0 | **41.1098** | 0.657 | 1.6 | ug/L | 989 | Standard |
| | Br | 79 | 75.0 | 9.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4626.7 | 3.6 | **39.3600** | 0.529 | 1.3 | ug/L | 29 | Standard |
| | Kr | 83 | 23.3 | 27.6 | | | | ug/L | 18 | Standard |
| | Y | 89 | 317613.7 | 3.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 111982.2 | 1.2 | **41.0393** | 0.368 | 0.9 | ug/L | 94 | Standard |
| | Ba | 137 | 189027.7 | 0.6 | **41.0437** | 0.352 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 492408.0 | 1.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 510694.9 | 0.6 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1767605.9 | 1.2 | **39.4014** | 0.272 | 0.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8141.0 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1951.8 | 2.7 | **38.6045** | 1.810 | 4.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 13813.7 | 2.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 111.475 |
| | 77Se | 99.062 | |
| | 78Se | 102.775 | |
| | 79Br | | |
| | 82Se | 98.400 | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | 102.598 | |
| | 137Ba | 102.609 | |
| > | 159Tb | | 100.423 |
| | 165Ho | | |
| | 208Pb | 98.504 | |
| > | 72Ge-1 | | 104.290 |
| | 75As-2 | 96.511 | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 14:42:18
Report Date/Time: Thursday, October 10, 2019 11:41:11
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 175853.6 | 1.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 15.0 | 40.0 | **-0.0534** | 0.133 | 248.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 1172.0 | 3.1 | **0.0584** | 0.264 | 452.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 75.3 | 13.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 37.0 | 18.7 | **0.0235** | 0.057 | 244.9 | ug/L | 29 | Standard |
| | **Kr** | 83 | 24.7 | 27.0 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 330167.2 | 1.4 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 128.3 | 12.5 | **0.0107** | 0.006 | 54.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 167.7 | 1.8 | **-0.0020** | 0.001 | 48.0 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 513141.4 | 1.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 529817.9 | 1.5 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 2860.4 | 1.3 | **0.0002** | 0.000 | 114.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8507.5 | 1.6 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 3.0 | 88.2 | **0.0292** | 0.050 | 169.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14410.3 | 2.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.683 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.651 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 108.985 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01 50X

Sample Date/Time: Wednesday, October 09, 2019 14:47:12
Report Date/Time: Thursday, October 10, 2019 11:41:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163692.5 | 2.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 27.7 | 19.9 | **0.2851** | 0.119 | 41.8 | ug/L | 15 | Standard |
| | Se | 78 | 1167.7 | 4.8 | **0.6113** | 0.325 | 53.1 | ug/L | 989 | Standard |
| | Br | 79 | 107.7 | 4.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 48.7 | 14.4 | **0.1467** | 0.054 | 36.8 | ug/L | 29 | Standard |
| | Kr | 83 | 28.7 | 2.0 | | | | ug/L | 18 | Standard |
| | Y | 89 | 322812.7 | 2.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 81238.4 | 1.1 | **30.0611** | 0.169 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 137635.2 | 1.1 | **30.1734** | 0.173 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 487536.6 | 1.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 499493.4 | 1.4 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 129994.1 | 1.0 | **2.8708** | 0.075 | 2.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7793.8 | 0.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 742.4 | 2.1 | **15.3099** | 0.224 | 1.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 14062.6 | 3.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 109.544 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.430 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 99.842 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01D 50X

Sample Date/Time: Wednesday, October 09, 2019 14:51:16
Report Date/Time: Thursday, October 10, 2019 11:41:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 170798.5 | 2.9 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 31.0 | 19.6 | **0.3362** | 0.132 | 39.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 1169.4 | 4.3 | **0.2725** | 0.256 | 94.0 | ug/L | 989 | Standard |
| | **Br** | 79 | 112.3 | 6.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 48.0 | 14.6 | **0.1236** | 0.051 | 41.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 33.7 | 16.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 332280.7 | 5.9 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 76675.6 | 0.9 | **27.5533** | 0.356 | 1.3 | ug/L | 94 | Standard |
| | **Ba** | 137 | 129572.4 | 1.6 | **27.5846** | 0.447 | 1.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 502037.4 | 2.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 514067.7 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 124723.4 | 0.8 | **2.6705** | 0.042 | 1.6 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8040.9 | 3.7 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 689.3 | 5.5 | **13.7905** | 0.915 | 6.6 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14282.1 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 114.300 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.387 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 103.008 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01L 250X

Sample Date/Time: Wednesday, October 09, 2019 14:55:19
Report Date/Time: Thursday, October 10, 2019 11:41:18
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 168344.8 | 1.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 17.0 | 20.4 | **0.0111** | 0.081 | 728.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1176.7 | 2.7 | **0.4436** | 0.282 | 63.6 | ug/L | 989 | Standard |
| | **Br** | 79 | 74.0 | 10.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 40.0 | 30.7 | **0.0617** | 0.103 | 166.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 24.7 | 16.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 317290.5 | 1.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 17701.3 | 2.0 | **6.5204** | 0.089 | 1.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 30106.0 | 0.8 | **6.5687** | 0.016 | 0.2 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 487694.3 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 505789.4 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 28495.5 | 1.0 | **0.5813** | 0.008 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8212.4 | 2.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 170.3 | 7.4 | **3.3168** | 0.309 | 9.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 13950.8 | 3.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 112.658 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.462 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 105.204 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01PS 50X

Sample Date/Time: Wednesday, October 09, 2019 14:59:22
Report Date/Time: Thursday, October 10, 2019 11:41:20
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 165468.9 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1705.8 | 3.2 | **41.3384** | 1.451 | 3.5 | ug/L | 15 | Standard |
| | **Se** | 78 | 6813.0 | 2.0 | **40.9199** | 1.584 | 3.9 | ug/L | 989 | Standard |
| | **Br** | 79 | 105.3 | 4.4 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4539.7 | 6.1 | **38.8705** | 2.593 | 6.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 32.3 | 1.8 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 314319.6 | 3.9 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 181328.3 | 0.9 | **68.0816** | 0.356 | 0.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 304638.3 | 0.7 | **67.7670** | 0.290 | 0.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 480768.7 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 499773.7 | 0.6 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1792976.3 | 0.7 | **40.9367** | 0.394 | 1.0 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7831.1 | 1.9 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2605.6 | 2.0 | **53.5507** | 0.285 | 0.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14065.9 | 2.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 110.733 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 98.049 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 100.320 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-02 50X

Sample Date/Time: Wednesday, October 09, 2019 15:06:00
Report Date/Time: Thursday, October 10, 2019 11:41:23
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164151.4 | 0.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 32.0 | 11.3 | **0.3917** | 0.087 | 22.2 | ug/L | 15 | Standard |
| | Se | 78 | 1184.7 | 3.3 | **0.7122** | 0.325 | 45.7 | ug/L | 989 | Standard |
| | Br | 79 | 201.3 | 12.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 37.0 | 24.0 | **0.0445** | 0.076 | 171.6 | ug/L | 29 | Standard |
| | Kr | 83 | 42.7 | 13.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 339287.0 | 5.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 90801.0 | 0.2 | **34.3410** | 0.150 | 0.4 | ug/L | 94 | Standard |
| | Ba | 137 | 151074.6 | 0.5 | **33.8504** | 0.278 | 0.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 477057.3 | 0.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 493070.3 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 96524.6 | 1.1 | **2.1632** | 0.026 | 1.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7818.8 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 608.7 | 0.4 | **12.5111** | 0.245 | 2.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 14775.6 | 3.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 109.851 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 97.292 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 100.162 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-03 50X

Sample Date/Time: Wednesday, October 09, 2019 15:10:03
Report Date/Time: Thursday, October 10, 2019 11:41:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 173139.6 | 2.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 50.7 | 16.8 | **0.7909** | 0.227 | 28.8 | ug/L | 15 | Standard |
| | Se | 78 | 1225.7 | 5.9 | **0.5468** | 0.424 | 77.5 | ug/L | 989 | Standard |
| | Br | 79 | 134.7 | 1.7 | | | | ug/L | 67 | Standard |
| | Se | 82 | 69.0 | 11.5 | **0.2909** | 0.053 | 18.1 | ug/L | 29 | Standard |
| | Kr | 83 | 34.3 | 16.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 331387.5 | 1.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 50473.7 | 0.6 | **18.2359** | 0.123 | 0.7 | ug/L | 94 | Standard |
| | Ba | 137 | 84951.9 | 1.3 | **18.1819** | 0.153 | 0.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 498942.0 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 511800.9 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 91149.2 | 0.3 | **1.9472** | 0.010 | 0.5 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8225.0 | 1.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1228.7 | 1.7 | **24.0284** | 0.094 | 0.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 14722.9 | 1.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 115.866 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.756 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 105.366 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-04 50X

Sample Date/Time: Wednesday, October 09, 2019 15:14:06
Report Date/Time: Thursday, October 10, 2019 11:41:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 169322.6 | 0.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 51.7 | 16.9 | **0.8375** | 0.206 | 24.6 | ug/L | 15 | Standard |
| | **Se** | 78 | 1296.4 | 3.7 | **1.2314** | 0.352 | 28.6 | ug/L | 989 | Standard |
| | **Br** | 79 | 93.3 | 7.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 99.7 | 5.1 | **0.5629** | 0.044 | 7.9 | ug/L | 29 | Standard |
| | **Kr** | 83 | 34.3 | 17.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 312276.1 | 2.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 28350.8 | 0.9 | **10.7008** | 0.157 | 1.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 47517.9 | 1.0 | **10.6232** | 0.088 | 0.8 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 476984.9 | 0.7 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 492412.9 | 1.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 40264.3 | 1.5 | **0.8670** | 0.018 | 2.1 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8058.9 | 3.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 962.7 | 5.8 | **19.2339** | 1.471 | 7.6 | ug/L | 1 | KED |
| | **Y-1** | 89 | 13827.0 | 3.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 113.312 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 97.278 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 103.239 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-05 50X

Sample Date/Time: Wednesday, October 09, 2019 15:18:08
Report Date/Time: Thursday, October 10, 2019 11:41:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 172603.7 | 2.0 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 50.7 | 7.5 | **0.7918** | 0.101 | 12.8 | ug/L | 15 | Standard |
| | Se | 78 | 1251.1 | 3.2 | **0.7517** | 0.386 | 51.4 | ug/L | 989 | Standard |
| | Br | 79 | 164.3 | 6.7 | | | | ug/L | 67 | Standard |
| | Se | 82 | 78.7 | 9.4 | **0.3741** | 0.072 | 19.1 | ug/L | 29 | Standard |
| | Kr | 83 | 30.7 | 1.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 331885.0 | 4.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 76635.7 | 0.8 | **28.0181** | 0.151 | 0.5 | ug/L | 94 | Standard |
| | Ba | 137 | 127940.7 | 1.1 | **27.7111** | 0.252 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 493378.9 | 0.2 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 511349.2 | 1.3 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 100214.5 | 0.2 | **2.1718** | 0.002 | 0.1 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8159.0 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1723.4 | 4.8 | **33.9943** | 1.727 | 5.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 14320.2 | 3.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 115.508 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 100.621 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.520 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-06 50X

Sample Date/Time: Wednesday, October 09, 2019 15:22:12
Report Date/Time: Thursday, October 10, 2019 11:41:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 165665.8 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 36.0 | 12.1 | 0.4821 | 0.102 | 21.1 | ug/L | 15 | Standard |
| | Se | 78 | 1214.4 | 4.6 | 0.8445 | 0.366 | 43.3 | ug/L | 989 | Standard |
| | Br | 79 | 188.3 | 4.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 63.0 | 15.3 | 0.2653 | 0.079 | 29.8 | ug/L | 29 | Standard |
| | Kr | 83 | 36.7 | 8.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 321487.0 | 3.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 108718.2 | 1.1 | 40.1928 | 0.132 | 0.3 | ug/L | 94 | Standard |
| | Ba | 137 | 181940.6 | 0.5 | 39.8524 | 0.366 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 488112.3 | 1.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 498976.0 | 1.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 109238.8 | 1.3 | 2.3992 | 0.004 | 0.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7930.2 | 4.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1147.4 | 1.7 | 23.2902 | 0.643 | 2.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 14583.8 | 0.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.865 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.547 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 101.589 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-07 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:26:16
Report Date/Time: Thursday, October 10, 2019 11:41:35
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 166150.7 | 0.9 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 36.0 | 10.0 | **0.4804** | 0.096 | 20.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1235.4 | 0.5 | **0.9701** | 0.127 | 13.1 | ug/L | 989 | Standard |
| | **Br** | 79 | 177.0 | 7.2 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 58.7 | 4.9 | **0.2270** | 0.029 | 12.9 | ug/L | 29 | Standard |
| | **Kr** | 83 | 44.0 | 4.5 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 331823.3 | 0.9 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 92537.4 | 0.5 | **34.5337** | 0.050 | 0.1 | ug/L | 94 | Standard |
| | **Ba** | 137 | 155703.0 | 0.8 | **34.4245** | 0.085 | 0.2 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 483469.4 | 0.6 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 492070.3 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 114919.9 | 1.1 | **2.5519** | 0.016 | 0.6 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8119.0 | 2.9 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1517.4 | 3.7 | **30.0855** | 1.383 | 4.6 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15064.3 | 4.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 111.189 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 98.600 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.008 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 15:30:20
Report Date/Time: Thursday, October 10, 2019 11:41:37
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 182039.1 | 2.0 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1846.8 | 3.8 | **40.6790** | 1.625 | 4.0 | ug/L | 15 | Standard |
| | Se | 78 | 7255.5 | 3.1 | **39.3494** | 1.162 | 3.0 | ug/L | 989 | Standard |
| | Br | 79 | 65.0 | 9.6 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4864.8 | 3.7 | **37.8410** | 0.968 | 2.6 | ug/L | 29 | Standard |
| | Kr | 83 | 29.3 | 17.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 332058.3 | 4.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 115076.6 | 0.5 | **41.5673** | 0.262 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 193354.2 | 1.2 | **41.3762** | 0.084 | 0.2 | ug/L | 169 | Standard |
| > | Tb | 159 | 499598.9 | 1.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 518801.9 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1814400.2 | 0.9 | **39.8671** | 0.720 | 1.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8588.6 | 2.0 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1999.5 | 3.7 | **37.4591** | 1.029 | 2.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 14842.0 | 1.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 121.822 |
| | 77 | Se | 101.698 | |
| | 78 | Se | 98.373 | |
| | 79 | Br | | |
| | 82 | Se | 94.603 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 103.918 | |
| | 137 | Ba | 103.440 | |
| > | 159 | Tb | | 101.890 |
| | 165 | Ho | | |
| | 208 | Pb | 99.668 | |
| > | 72 | Ge-1 | | 110.023 |
| | 75 | As-2 | 93.648 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 15:34:24
Report Date/Time: Thursday, October 10, 2019 11:41:39
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 187723.9 | 3.3 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 17.3 | 26.0 | **-0.0253** | 0.085 | 335.0 | ug/L | 15 | Standard |
| | Se | 78 | 1238.1 | 3.4 | **-0.0240** | 0.188 | 785.9 | ug/L | 989 | Standard |
| | Br | 79 | 65.0 | 12.2 | | | | ug/L | 67 | Standard |
| | Se | 82 | 37.3 | 15.5 | **0.0074** | 0.048 | 648.9 | ug/L | 29 | Standard |
| | Kr | 83 | 33.0 | 27.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 351412.1 | 3.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 127.7 | 6.8 | **0.0096** | 0.003 | 30.2 | ug/L | 94 | Standard |
| | Ba | 137 | 182.0 | 2.9 | **0.0003** | 0.001 | 334.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 522347.8 | 0.7 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 538938.5 | 0.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2818.1 | 2.0 | **-0.0018** | 0.001 | 48.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8736.3 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2.7 | 43.3 | **0.0214** | 0.020 | 94.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 15393.3 | 3.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 125.626 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 106.529 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 111.916 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-08 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:38:25
Report Date/Time: Thursday, October 10, 2019 11:41:43
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 160437.9 | 1.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 33.3 | 12.1 | **0.4432** | 0.095 | 21.5 | ug/L | 15 | Standard |
| | **Se** | 78 | 1222.4 | 2.4 | **1.1886** | 0.296 | 24.9 | ug/L | 989 | Standard |
| | **Br** | 79 | 220.7 | 3.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 65.0 | 16.3 | **0.3008** | 0.091 | 30.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 50.0 | 20.3 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 344694.7 | 1.2 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 118506.9 | 1.1 | **43.7432** | 0.896 | 2.0 | ug/L | 94 | Standard |
| | **Ba** | 137 | 200704.1 | 0.9 | **43.8893** | 0.636 | 1.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 488961.7 | 1.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 493499.6 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 123174.4 | 2.0 | **2.7087** | 0.082 | 3.0 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7779.1 | 2.2 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1198.1 | 2.3 | **24.7879** | 1.062 | 4.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15261.8 | 2.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 107.366 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.720 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 99.654 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-09 50X

Sample Date/Time: Wednesday, October 09, 2019 15:42:28
Report Date/Time: Thursday, October 10, 2019 11:41:45
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 169330.8 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 30.7 | 27.7 | **0.3357** | 0.204 | 60.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 1227.4 | 2.0 | **0.7477** | 0.077 | 10.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 227.3 | 4.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 52.7 | 8.8 | **0.1670** | 0.042 | 25.0 | ug/L | 29 | Standard |
| | **Kr** | 83 | 40.3 | 7.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 342966.6 | 2.1 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 96598.2 | 0.3 | **34.9695** | 0.131 | 0.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 163970.4 | 1.2 | **35.1665** | 0.257 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 498402.9 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 505388.5 | 1.3 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 124487.0 | 0.9 | **2.6847** | 0.023 | 0.9 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8052.6 | 4.7 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 959.7 | 0.9 | **19.1942** | 0.974 | 5.1 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15308.5 | 4.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 113.317 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.646 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 103.157 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-01 50X

Sample Date/Time: Wednesday, October 09, 2019 15:46:32
Report Date/Time: Thursday, October 10, 2019 11:41:47
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 172652.4 | 3.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 28.3 | 28.5 | **0.2656** | 0.178 | 66.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 1224.4 | 0.9 | **0.5665** | 0.192 | 33.9 | ug/L | 989 | Standard |
| | **Br** | 79 | 212.7 | 8.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 55.0 | 4.8 | **0.1777** | 0.021 | 11.8 | ug/L | 29 | Standard |
| | **Kr** | 83 | 47.3 | 8.5 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 351032.7 | 1.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 118707.8 | 0.3 | **42.2624** | 0.354 | 0.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 198285.3 | 0.5 | **41.8228** | 0.276 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 506900.1 | 1.1 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 515924.6 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 90990.6 | 0.4 | **1.9124** | 0.026 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8171.0 | 3.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1325.4 | 0.3 | **26.1136** | 0.877 | 3.4 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15403.6 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 115.540 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.379 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.674 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-02 50X

Sample Date/Time: Wednesday, October 09, 2019 15:50:35
Report Date/Time: Thursday, October 10, 2019 11:41:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 165109.1 | 3.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 29.0 | 6.0 | 0.3136 | 0.031 | 10.0 | ug/L | 15 | Standard |
| | Se | 78 | 1260.1 | 3.7 | 1.2079 | 0.414 | 34.3 | ug/L | 989 | Standard |
| | Br | 79 | 244.3 | 3.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 54.3 | 16.7 | 0.1945 | 0.092 | 47.2 | ug/L | 29 | Standard |
| | Kr | 83 | 47.7 | 8.7 | | | | ug/L | 18 | Standard |
| | Y | 89 | 360124.1 | 4.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 141997.7 | 1.4 | 51.5320 | 1.163 | 2.3 | ug/L | 94 | Standard |
| | Ba | 137 | 239461.1 | 1.2 | 51.4804 | 0.521 | 1.0 | ug/L | 169 | Standard |
| > | Tb | 159 | 497451.3 | 2.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 503914.0 | 1.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 95999.5 | 0.6 | 2.0609 | 0.036 | 1.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7937.9 | 2.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 608.0 | 4.6 | 12.3124 | 0.642 | 5.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 15532.4 | 3.8 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 110.492 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 101.452 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 101.688 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-03 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:54:39
Report Date/Time: Thursday, October 10, 2019 11:41:51
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 176142.9 | 3.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 23.7 | 12.9 | **0.1471** | 0.075 | 51.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1253.4 | 5.9 | **0.5864** | 0.256 | 43.6 | ug/L | 989 | Standard |
| | **Br** | 79 | 187.3 | 10.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 45.3 | 5.6 | **0.0901** | 0.011 | 12.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 50.0 | 21.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 381206.1 | 3.6 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 117900.3 | 1.9 | **41.6942** | 1.084 | 2.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 197436.7 | 0.4 | **41.3624** | 0.328 | 0.8 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 510345.1 | 1.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 523232.8 | 0.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 98490.7 | 0.5 | **2.0605** | 0.009 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8222.7 | 2.7 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 155.0 | 3.4 | **3.0083** | 0.082 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16218.5 | 4.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.876 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.081 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 105.336 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-04 50X

Sample Date/Time: Wednesday, October 09, 2019 15:58:42
Report Date/Time: Thursday, October 10, 2019 11:41:54
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 175337.4 | 4.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 19.3 | 7.9 | **0.0490** | 0.028 | 56.5 | ug/L | 15 | Standard |
| | **Se** | 78 | 1257.1 | 7.1 | **0.6501** | 0.346 | 53.2 | ug/L | 989 | Standard |
| | **Br** | 79 | 194.3 | 16.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 52.3 | 9.0 | **0.1496** | 0.044 | 29.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 41.0 | 16.0 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 362199.1 | 4.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 117765.1 | 1.4 | **41.7996** | 0.453 | 1.1 | ug/L | 94 | Standard |
| | **Ba** | 137 | 197875.0 | 0.5 | **41.6169** | 0.849 | 2.0 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 508465.3 | 2.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 518646.5 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 184860.1 | 0.6 | **3.9366** | 0.074 | 1.9 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8143.0 | 2.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 633.0 | 1.5 | **12.4993** | 0.484 | 3.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15765.0 | 0.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.337 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.698 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.315 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-05 50X

Sample Date/Time: Wednesday, October 09, 2019 16:02:45
Report Date/Time: Thursday, October 10, 2019 11:41:56
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 175952.7 | 1.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 32.3 | 12.9 | **0.3462** | 0.091 | 26.3 | ug/L | 15 | Standard |
| | Se | 78 | 1283.1 | 4.7 | **0.8031** | 0.493 | 61.4 | ug/L | 989 | Standard |
| | Br | 79 | 195.7 | 5.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 59.0 | 9.0 | **0.2015** | 0.042 | 20.9 | ug/L | 29 | Standard |
| | Kr | 83 | 47.3 | 27.6 | | | | ug/L | 18 | Standard |
| | Y | 89 | 369323.4 | 3.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 128051.8 | 2.0 | **45.5184** | 0.790 | 1.7 | ug/L | 94 | Standard |
| | Ba | 137 | 213703.9 | 1.7 | **45.0034** | 0.271 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 507716.8 | 1.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 520718.1 | 1.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 151873.2 | 1.1 | **3.2275** | 0.022 | 0.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8128.3 | 1.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1030.0 | 2.9 | **20.3859** | 0.838 | 4.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 15355.9 | 3.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.749 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.545 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.127 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-06 50X**

Sample Date/Time: Wednesday, October 09, 2019 16:06:48
Report Date/Time: Thursday, October 10, 2019 11:41:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 175182.6 | 2.1 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 32.3 | 14.6 | **0.3504** | 0.113 | 32.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1283.1 | 2.7 | **0.8397** | 0.268 | 32.0 | ug/L | 989 | Standard |
| | **Br** | 79 | 191.0 | 5.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 55.3 | 22.9 | **0.1735** | 0.100 | 57.4 | ug/L | 29 | Standard |
| | **Kr** | 83 | 39.0 | 4.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 372670.7 | 5.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 114198.0 | 1.3 | **40.3483** | 0.659 | 1.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 191618.9 | 0.8 | **40.1103** | 0.447 | 1.1 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 510762.4 | 1.1 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 519456.3 | 0.8 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 173484.2 | 0.9 | **3.6730** | 0.051 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8141.3 | 3.4 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1090.0 | 3.4 | **21.5657** | 1.464 | 6.8 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15596.5 | 0.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.234 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.166 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.294 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-02 10X**

Sample Date/Time: Wednesday, October 09, 2019 16:10:51
Report Date/Time: Thursday, October 10, 2019 11:42:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 162324.8 | 1.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 89.3 | 2.6 | **1.8314** | 0.089 | 4.8 | ug/L | 15 | Standard |
| | Se | 78 | 1134.4 | 5.2 | **0.4388** | 0.363 | 82.7 | ug/L | 989 | Standard |
| | Br | 79 | 604.3 | 1.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 89.7 | 13.5 | **0.5102** | 0.096 | 18.8 | ug/L | 29 | Standard |
| | Kr | 83 | 93.3 | 8.7 | | | | ug/L | 18 | Standard |
| | Y | 89 | 427322.5 | 0.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 444137.9 | 0.6 | **155.3089** | 0.889 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 754670.7 | 0.6 | **156.3567** | 1.201 | 0.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 516366.5 | 0.8 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 514920.0 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 450617.0 | 0.5 | **9.5324** | 0.077 | 0.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7702.7 | 1.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2993.0 | 2.6 | **62.5538** | 2.031 | 3.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 20390.2 | 1.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 108.629 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 105.309 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 98.676 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-03 20X

Sample Date/Time: Wednesday, October 09, 2019 16:14:53
Report Date/Time: Thursday, October 10, 2019 11:42:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 167627.2 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 82.7 | 10.8 | **1.5975** | 0.189 | 11.8 | ug/L | 15 | Standard |
| | Se | 78 | 1271.7 | 1.6 | **1.1493** | 0.155 | 13.5 | ug/L | 989 | Standard |
| | Br | 79 | 282.7 | 12.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 106.0 | 9.4 | **0.6257** | 0.091 | 14.5 | ug/L | 29 | Standard |
| | Kr | 83 | 41.3 | 18.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 327831.9 | 1.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 127199.5 | 0.9 | **47.5007** | 0.651 | 1.4 | ug/L | 94 | Standard |
| | Ba | 137 | 213830.0 | 1.4 | **47.3044** | 0.264 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 483316.5 | 1.2 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 502515.3 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 229548.3 | 0.8 | **5.1606** | 0.087 | 1.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7870.2 | 1.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 3081.3 | 0.3 | **63.0268** | 0.708 | 1.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 15000.9 | 0.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recovery | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 112.177 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 98.569 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 100.820 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 16:18:56
Report Date/Time: Thursday, October 10, 2019 11:42:05
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 170502.1 | 3.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1721.8 | 2.9 | **40.4872** | 0.610 | 1.5 | ug/L | 15 | Standard |
| | Se | 78 | 7207.8 | 3.6 | **42.2232** | 1.682 | 4.0 | ug/L | 989 | Standard |
| | Br | 79 | 100.7 | 7.7 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4719.1 | 2.0 | **39.2166** | 0.640 | 1.6 | ug/L | 29 | Standard |
| | Kr | 83 | 30.3 | 6.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 322977.4 | 2.0 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 110977.7 | 0.4 | **41.8587** | 0.490 | 1.2 | ug/L | 94 | Standard |
| | Ba | 137 | 185085.3 | 0.6 | **41.3584** | 0.365 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 478482.5 | 1.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 496415.4 | 1.6 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1737628.4 | 1.0 | **39.8619** | 0.176 | 0.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8087.3 | 1.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1944.5 | 1.5 | **38.7010** | 1.137 | 2.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 14314.5 | 2.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 114.101 |
| | 77 | Se | 101.218 | |
| | 78 | Se | 105.558 | |
| | 79 | Br | | |
| | 82 | Se | 98.041 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 104.647 | |
| | 137 | Ba | 103.396 | |
| > | 159 | Tb | | 97.583 |
| | 165 | Ho | | |
| | 208 | Pb | 99.655 | |
| > | 72 | Ge-1 | | 103.602 |
| | 75 | As-2 | 96.753 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 16:23:01
Report Date/Time: Thursday, October 10, 2019 11:42:08
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 181570.8 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 16.3 | 27.6 | -0.0342 | 0.095 | 277.1 | ug/L | 15 | Standard |
| | Se | 78 | 1223.7 | 3.4 | 0.1444 | 0.158 | 109.6 | ug/L | 989 | Standard |
| | Br | 79 | 83.7 | 3.0 | | | | ug/L | 67 | Standard |
| | Se | 82 | 38.0 | 12.1 | 0.0219 | 0.039 | 176.8 | ug/L | 29 | Standard |
| | Kr | 83 | 24.3 | 13.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 341259.5 | 3.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 140.3 | 3.2 | 0.0162 | 0.002 | 12.6 | ug/L | 94 | Standard |
| | Ba | 137 | 171.0 | 12.0 | -0.0004 | 0.005 | 1312.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 500342.9 | 0.8 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 520333.2 | 1.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2762.8 | 1.5 | -0.0004 | 0.001 | 183.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8540.9 | 3.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2.3 | 89.2 | 0.0173 | 0.040 | 232.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 14859.4 | 1.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 121.509 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.041 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 109.413 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-05 20X

Sample Date/Time: Wednesday, October 09, 2019 16:28:16
Report Date/Time: Thursday, October 10, 2019 11:42:10
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 164435.0 | 2.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 109.0 | 14.3 | **2.2893** | 0.410 | 17.9 | ug/L | 15 | Standard |
| | **Se** | 78 | 1319.1 | 0.6 | **1.6669** | 0.196 | 11.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 296.7 | 1.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 161.0 | 4.3 | **1.1198** | 0.044 | 3.9 | ug/L | 29 | Standard |
| | **Kr** | 83 | 46.7 | 13.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 334448.1 | 3.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 191082.3 | 1.7 | **71.0329** | 1.274 | 1.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 319505.7 | 1.2 | **70.3679** | 0.772 | 1.1 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 485607.7 | 0.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 495324.8 | 1.8 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 242738.6 | 1.1 | **5.4338** | 0.034 | 0.6 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7908.5 | 3.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 4291.3 | 1.4 | **87.4277** | 3.468 | 4.0 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15065.9 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.041 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.036 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 101.312 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-06 20X

Sample Date/Time: Wednesday, October 09, 2019 16:32:19
Report Date/Time: Thursday, October 10, 2019 11:42:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 167136.5 | 4.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 70.0 | 10.8 | **1.2951** | 0.114 | 8.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 1281.1 | 2.0 | **1.2506** | 0.384 | 30.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 399.3 | 3.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 104.7 | 14.5 | **0.6151** | 0.105 | 17.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 55.7 | 23.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 353540.3 | 2.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 289917.7 | 0.5 | **103.9997** | 0.607 | 0.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 486850.4 | 1.3 | **103.4703** | 1.128 | 1.1 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 503304.8 | 0.6 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 515170.9 | 0.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 284478.0 | 1.7 | **6.1523** | 0.087 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7997.2 | 1.1 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2953.3 | 4.3 | **59.4541** | 2.908 | 4.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16449.1 | 1.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 111.849 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.645 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 102.448 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-07 10X

Sample Date/Time: Wednesday, October 09, 2019 16:36:24
Report Date/Time: Thursday, October 10, 2019 11:42:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 162546.2 | 3.4 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 96.7 | 7.8 | **2.0133** | 0.222 | 11.0 | ug/L | 15 | Standard |
| | **Se** | 78 | 1222.7 | 5.5 | **1.0735** | 0.420 | 39.2 | ug/L | 989 | Standard |
| | **Br** | 79 | 636.0 | 2.3 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 139.3 | 1.5 | **0.9465** | 0.023 | 2.5 | ug/L | 29 | Standard |
| | **Kr** | 83 | 114.0 | 11.6 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 398709.5 | 1.2 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 466192.5 | 0.6 | **162.0376** | 1.953 | 1.2 | ug/L | 94 | Standard |
| | **Ba** | 137 | 785810.4 | 1.2 | **161.8134** | 0.942 | 0.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 519523.6 | 0.7 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 517408.6 | 0.8 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 557425.5 | 1.1 | **11.7344** | 0.172 | 1.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7663.4 | 0.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 7565.3 | 2.1 | **158.9541** | 3.758 | 2.4 | ug/L | 1 | KED |
| | **Y-1** | 89 | 18719.9 | 2.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 108.777 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 105.953 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 98.171 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-08 20X

Sample Date/Time: Wednesday, October 09, 2019 16:40:28
Report Date/Time: Thursday, October 10, 2019 11:42:17
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 164243.7 | 2.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 74.0 | 5.9 | **1.4286** | 0.144 | 10.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1170.4 | 2.4 | **0.6082** | 0.368 | 60.5 | ug/L | 989 | Standard |
| | **Br** | 79 | 470.3 | 5.2 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 87.0 | 10.0 | **0.4780** | 0.062 | 13.0 | ug/L | 29 | Standard |
| | **Kr** | 83 | 81.7 | 9.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 396032.9 | 0.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 283174.0 | 1.4 | **102.8408** | 1.857 | 1.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 475375.0 | 2.2 | **102.2684** | 0.916 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 497268.5 | 2.7 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 507157.7 | 1.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 292554.7 | 0.8 | **6.4086** | 0.129 | 2.0 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7844.2 | 3.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2859.6 | 2.3 | **58.7100** | 1.595 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 17968.0 | 1.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 109.913 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.414 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 100.487 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-09 10X

Sample Date/Time: Wednesday, October 09, 2019 16:44:32
Report Date/Time: Thursday, October 10, 2019 11:42:19
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161677.8 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 84.7 | 5.6 | **1.7219** | 0.094 | 5.4 | ug/L | 15 | Standard |
| | Se | 78 | 1174.4 | 2.8 | **0.7670** | 0.263 | 34.3 | ug/L | 989 | Standard |
| | Br | 79 | 831.0 | 4.6 | | | | ug/L | 67 | Standard |
| | Se | 82 | 127.7 | 10.8 | **0.8496** | 0.122 | 14.3 | ug/L | 29 | Standard |
| | Kr | 83 | 106.7 | 16.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 440266.0 | 4.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 483292.0 | 0.1 | **164.8037** | 0.803 | 0.5 | ug/L | 94 | Standard |
| | Ba | 137 | 821429.8 | 0.8 | **165.9649** | 2.145 | 1.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 529522.7 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 526598.4 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 591314.4 | 1.3 | **12.2152** | 0.202 | 1.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7595.0 | 1.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 4708.4 | 2.7 | **99.8215** | 3.120 | 3.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 21857.7 | 1.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 108.196 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.992 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 97.296 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-01 10X

Sample Date/Time: Wednesday, October 09, 2019 16:48:35
Report Date/Time: Thursday, October 10, 2019 11:42:21
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158768.7 | 2.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 46.7 | 11.0 | 0.7912 | 0.108 | 13.7 | ug/L | 15 | Standard |
| | Se | 78 | 1171.0 | 2.9 | 0.9052 | 0.438 | 48.4 | ug/L | 989 | Standard |
| | Br | 79 | 739.7 | 7.6 | | | | ug/L | 67 | Standard |
| | Se | 82 | 109.7 | 8.3 | 0.7082 | 0.072 | 10.1 | ug/L | 29 | Standard |
| | Kr | 83 | 98.7 | 8.1 | | | | ug/L | 18 | Standard |
| | Y | 89 | 412673.3 | 2.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 540249.5 | 1.9 | 185.0392 | 0.805 | 0.4 | ug/L | 94 | Standard |
| | Ba | 137 | 916533.1 | 1.0 | 186.0088 | 0.875 | 0.5 | ug/L | 169 | Standard |
| > | Tb | 159 | 527177.9 | 1.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 526957.7 | 1.1 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 397495.2 | 1.4 | 8.2277 | 0.008 | 0.1 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7709.4 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 5775.2 | 1.1 | 120.6365 | 3.236 | 2.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 20602.5 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.249 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.514 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 98.761 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-02 10X**

Sample Date/Time: Wednesday, October 09, 2019 16:52:38
Report Date/Time: Thursday, October 10, 2019 11:42:24
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 146515.9 | 1.4 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 52.0 | 8.4 | **1.0406** | 0.138 | 13.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 1164.0 | 2.4 | **1.5755** | 0.348 | 22.1 | ug/L | 989 | Standard |
| | **Br** | 79 | 844.0 | 0.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 109.3 | 14.0 | **0.7892** | 0.163 | 20.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 115.0 | 9.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 400294.9 | 1.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 684225.8 | 0.8 | **250.0868** | 0.946 | 0.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 1168068.5 | 0.7 | **252.9551** | 1.416 | 0.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 494049.2 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 484127.7 | 0.4 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 440067.5 | 0.8 | **9.7307** | 0.050 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 6927.0 | 3.2 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2900.0 | 0.9 | **67.4222** | 1.661 | 2.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 19432.5 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 98.050 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 100.758 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 88.738 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-03 10X

Sample Date/Time: Wednesday, October 09, 2019 16:56:42
Report Date/Time: Thursday, October 10, 2019 11:42:27
Solution Type: Sample
Sample Type: Sample .
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158977.7 | 0.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 47.0 | 11.1 | **0.8003** | 0.143 | 17.9 | ug/L | 15 | Standard |
| | Se | 78 | 1144.0 | 3.5 | **0.6861** | 0.277 | 40.4 | ug/L | 989 | Standard |
| | Br | 79 | 526.3 | 4.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 69.0 | 2.9 | **0.3424** | 0.023 | 6.6 | ug/L | 29 | Standard |
| | Kr | 83 | 125.0 | 18.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 422996.4 | 2.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 538358.3 | 0.6 | **190.6097** | 2.957 | 1.6 | ug/L | 94 | Standard |
| | Ba | 137 | 913799.0 | 0.7 | **191.6760** | 0.551 | 0.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 510053.6 | 0.9 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 505711.1 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 450522.6 | 0.3 | **9.6495** | 0.113 | 1.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7476.3 | 2.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 757.0 | 3.5 | **16.2820** | 0.599 | 3.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 20310.4 | 2.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.389 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.022 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 95.775 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-04 10X**

Sample Date/Time: Wednesday, October 09, 2019 17:00:45
Report Date/Time: Thursday, October 10, 2019 11:42:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158379.9 | 1.7 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 56.7 | 8.2 | 1.0502 | 0.096 | 9.1 | ug/L | 15 | Standard |
| | Se | 78 | 1202.7 | 6.9 | 1.1539 | 0.520 | 45.1 | ug/L | 989 | Standard |
| | Br | 79 | 577.7 | 1.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 115.0 | 6.1 | 0.7598 | 0.079 | 10.4 | ug/L | 29 | Standard |
| | Kr | 83 | 118.7 | 19.4 | | | | ug/L | 18 | Standard |
| | Y | 89 | 414989.6 | 4.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 544377.8 | 0.6 | 192.0546 | 0.200 | 0.1 | ug/L | 94 | Standard |
| | Ba | 137 | 922146.4 | 0.4 | 192.7556 | 0.786 | 0.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 511825.6 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 512695.0 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 816735.5 | 0.6 | 17.4807 | 0.037 | 0.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7389.9 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2988.6 | 3.0 | 65.1012 | 1.790 | 2.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 19219.3 | 4.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 105.989 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 104.383 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 94.668 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-05 10X

Sample Date/Time: Wednesday, October 09, 2019 17:04:49
Report Date/Time: Thursday, October 10, 2019 11:42:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 156971.5 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 67.7 | 11.5 | **1.3496** | 0.222 | 16.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 1244.4 | 4.5 | **1.5516** | 0.399 | 25.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 634.3 | 3.4 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 148.7 | 6.9 | **1.0746** | 0.099 | 9.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 134.7 | 14.6 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 386149.4 | 3.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 579437.3 | 1.0 | **207.4032** | 1.475 | 0.7 | ug/L | 94 | Standard |
| | **Ba** | 137 | 983041.1 | 0.3 | **208.4854** | 1.845 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 504485.2 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 502465.2 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 671538.9 | 0.4 | **14.5725** | 0.071 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7358.6 | 1.3 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 4943.2 | 2.6 | **108.1570** | 2.932 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 18918.5 | 0.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 105.047 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.886 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 94.266 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 17:08:53
Report Date/Time: Thursday, October 10, 2019 11:42:35
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 168442.6 | 0.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1699.1 | 5.0 | **40.4331** | 1.921 | 4.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 7076.1 | 5.7 | **41.8981** | 2.884 | 6.9 | ug/L | 989 | Standard |
| | **Br** | 79 | 101.0 | 11.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4625.4 | 2.1 | **38.8924** | 0.613 | 1.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 33.3 | 9.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 312526.9 | 2.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 106214.2 | 1.9 | **41.6973** | 0.669 | 1.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 178718.4 | 1.3 | **41.5676** | 0.374 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 459649.4 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 476864.4 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1686111.2 | 0.5 | **40.2644** | 0.274 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7990.2 | 2.6 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1898.1 | 1.6 | **38.2399** | 0.963 | 2.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 13833.7 | 3.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 112.723 |
| | 77 | Se | 101.083 | |
| | 78 | Se | 104.745 | |
| | 79 | Br | | |
| | 82 | Se | 97.231 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 104.243 | |
| | 137 | Ba | 103.919 | |
| > | 159 | Tb | | 93.742 |
| | 165 | Ho | | |
| | 208 | Pb | 100.661 | |
| > | 72 | Ge-1 | | 102.358 |
| | 75 | As-2 | 95.600 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 17:12:57
Report Date/Time: Thursday, October 10, 2019 11:42:38
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 177956.3 | 1.1 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 19.3 | 10.8 | **0.0429** | 0.052 | 121.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 1203.4 | 4.8 | **0.1705** | 0.303 | 177.8 | ug/L | 989 | Standard |
| | **Br** | 79 | 89.7 | 4.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 37.3 | 17.8 | **0.0225** | 0.054 | 239.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 29.7 | 26.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 335173.3 | 5.1 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 138.3 | 9.4 | **0.0165** | 0.004 | 25.9 | ug/L | 94 | Standard |
| | **Ba** | 137 | 156.0 | 10.7 | **-0.0029** | 0.003 | 113.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 489671.5 | 1.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 508212.8 | 1.3 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 2739.4 | 0.6 | **0.0004** | 0.001 | 270.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8342.1 | 2.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 4.3 | 35.3 | **0.0567** | 0.032 | 55.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14830.4 | 1.8 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 119.090 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.865 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 106.866 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-06 10X

Sample Date/Time: Wednesday, October 09, 2019 17:16:11
Report Date/Time: Thursday, October 10, 2019 11:42:40
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 159037.6 | 2.1 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 84.0 | 3.1 | **1.7422** | 0.107 | 6.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1255.7 | 5.7 | **1.5220** | 0.686 | 45.1 | ug/L | 989 | Standard |
| | **Br** | 79 | 550.7 | 6.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 180.3 | 18.2 | **1.3449** | 0.327 | 24.3 | ug/L | 29 | Standard |
| | **Kr** | 83 | 118.7 | 6.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 411909.4 | 1.0 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 522983.7 | 0.5 | **185.3132** | 2.645 | 1.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 891862.7 | 0.5 | **187.2405** | 2.909 | 1.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 509669.5 | 1.6 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 506960.0 | 1.0 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 761900.9 | 1.1 | **16.3731** | 0.088 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7494.0 | 3.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 5158.9 | 2.2 | **110.9258** | 4.457 | 4.0 | ug/L | 1 | KED |
| | **Y-1** | 89 | 19269.0 | 3.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.429 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.943 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 96.001 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-08 10X**

Sample Date/Time: Wednesday, October 09, 2019 17:20:14
Report Date/Time: Thursday, October 10, 2019 11:42:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158153.8 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 122.3 | 2.1 | **2.7344** | 0.073 | 2.7 | ug/L | 15 | Standard |
| | Se | 78 | 1166.0 | 6.0 | **0.8927** | 0.429 | 48.0 | ug/L | 989 | Standard |
| | Br | 79 | 767.7 | 2.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 137.0 | 5.8 | **0.9586** | 0.062 | 6.5 | ug/L | 29 | Standard |
| | Kr | 83 | 147.3 | 15.0 | | | | ug/L | 18 | Standard |
| | Y | 89 | 449756.8 | 5.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 588576.1 | 1.5 | **201.2501** | 1.631 | 0.8 | ug/L | 94 | Standard |
| | Ba | 137 | 998041.1 | 2.3 | **202.1672** | 0.761 | 0.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 528154.4 | 2.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 526931.5 | 0.5 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 587894.4 | 0.3 | **12.1795** | 0.291 | 2.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7444.9 | 0.9 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 5808.5 | 2.8 | **125.6186** | 3.798 | 3.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 22446.6 | 3.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 105.838 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.713 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 95.373 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 17:24:17
Report Date/Time: Thursday, October 10, 2019 11:42:44
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 164093.4 | 1.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1724.1 | 1.1 | **42.1388** | 0.601 | 1.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 6987.7 | 2.3 | **42.5776** | 1.138 | 2.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 122.0 | 13.6 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4634.4 | 0.7 | **40.0154** | 0.658 | 1.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 25.7 | 36.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 316804.5 | 1.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 105995.6 | 2.2 | **42.0007** | 1.208 | 2.9 | ug/L | 94 | Standard |
| | **Ba** | 137 | 175696.6 | 1.0 | **41.2442** | 0.715 | 1.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 455465.7 | 0.7 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 473976.3 | 1.4 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1670281.6 | 0.3 | **40.2537** | 0.341 | 0.8 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7865.2 | 2.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1891.8 | 2.6 | **38.7060** | 0.365 | 0.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 13668.9 | 1.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recovint Std % Recovery |
|---|---|---|---|
| > | 72 | Ge | 109.813 |
| | 77 | Se | 105.347 |
| | 78 | Se | 106.444 |
| | 79 | Br | |
| | 82 | Se | 100.038 |
| | 83 | Kr | |
| | 89 | Y | |
| | 135 | Ba | 105.002 |
| | 137 | Ba | 103.110 |
| > | 159 | Tb | 92.889 |
| | 165 | Ho | |
| | 208 | Pb | 100.634 |
| > | 72 | Ge-1 | 100.756 |
| | 75 | As-2 | 96.765 |
| | 89 | Y-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 17:28:21
Report Date/Time: Thursday, October 10, 2019 11:42:46
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 176367.4 | 0.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 16.7 | 36.7 | -0.0152 | 0.138 | 909.0 | ug/L | 15 | Standard |
| | Se | 78 | 1267.4 | 3.9 | 0.6729 | 0.262 | 38.9 | ug/L | 989 | Standard |
| | Br | 79 | 86.7 | 16.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 35.7 | 22.7 | 0.0115 | 0.065 | 563.0 | ug/L | 29 | Standard |
| | Kr | 83 | 22.3 | 33.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 349671.6 | 2.6 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 120.0 | 10.4 | 0.0101 | 0.005 | 46.1 | ug/L | 94 | Standard |
| | Ba | 137 | 175.0 | 0.6 | 0.0016 | 0.000 | 17.5 | ug/L | 169 | Standard |
| > | Tb | 159 | 485440.2 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 500149.6 | 0.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2686.4 | 1.3 | -0.0002 | 0.001 | 238.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8195.7 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1.3 | 114.6 | -0.0011 | 0.030 | 2733.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 14467.7 | 2.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 118.026 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.002 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.990 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 10, 2019

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 4296-008-01
Laboratory Reference No. 1910-112

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on October 9, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**Case Narrative**

Samples were collected on October 8, 2019 and received by the laboratory on October 9, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Total Metals EPA 6010D/6020B/7471B Analysis

Due to the high concentration of Iron and Manganese in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery for Iron was 97%. The Spike Blank recovery for Manganese was 98%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**ANALYTICAL REPORT FOR SAMPLES**

| Client ID | Laboratory ID | Matrix | Date Sampled | Date Received | Notes |
|---|---|---|---|---|---|
| SR08-CS-01-02 | 10-112-01 | Soil | 10-8-19 | 10-9-19 | |
| SR08-CS-02-02 | 10-112-02 | Soil | 10-8-19 | 10-9-19 | |
| SR08-CS-03-02 | 10-112-03 | Soil | 10-8-19 | 10-9-19 | |
| SR08-CS-04-02 | 10-112-04 | Soil | 10-8-19 | 10-9-19 | |
| SR08-CS-05-02 | 10-112-05 | Soil | 10-8-19 | 10-9-19 | |
| DUP-1 | 10-112-06 | Soil | 10-8-19 | 10-9-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR08-CS-01-02** | | | | | |
| Laboratory ID: | 10-112-01 | | | | | |
| Arsenic | **69** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **110** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **26000** | 53 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **5.0** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **390** | 26 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.089** | 0.026 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.37** | 0.26 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **1.6** | 0.66 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR08-CS-02-02** | | | | | |
| Laboratory ID: | 10-112-02 | | | | | |
| Arsenic | **32** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **140** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **26000** | 53 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **5.4** | 1.3 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **440** | 26 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.12** | 0.026 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.42** | 0.26 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **1.1** | 0.66 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR08-CS-03-02** | | | | | |
| Laboratory ID: | 10-112-03 | | | | | |
| Arsenic | **8.2** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **110** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **20000** | 55 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **5.6** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **350** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.034** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **ND** | 0.27 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **ND** | 0.69 | EPA 6020B | 10-9-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR08-CS-04-02** | | | | | |
| Laboratory ID: | 10-112-04 | | | | | |
| Arsenic | **34** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **110** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **21000** | 55 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **11** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **350** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.12** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.41** | 0.27 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **2.5** | 0.68 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **SR08-CS-05-02** | | | | | |
| Laboratory ID: | 10-112-05 | | | | | |
| Arsenic | **55** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **120** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **21000** | 54 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **8.7** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **370** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.13** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.58** | 0.27 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **2.2** | 0.68 | EPA 6020B | 10-9-19 | 10-10-19 | |
| **Client ID:** | **DUP-1** | | | | | |
| Laboratory ID: | 10-112-06 | | | | | |
| Arsenic | **58** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **110** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Iron | **22000** | 54 | EPA 6010D | 10-10-19 | 10-10-19 | |
| Lead | **9.9** | 1.4 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Manganese | **390** | 27 | EPA 6010D | 10-9-19 | 10-9-19 | |
| Mercury | **0.50** | 0.027 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Selenium | **0.72** | 0.27 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Silver | **2.0** | 0.68 | EPA 6020B | 10-9-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB1009SM1 | | | | | |
| Arsenic | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Barium | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Lead | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Selenium | **ND** | 0.13 | EPA 6020B | 10-9-19 | 10-9-19 | |
| Laboratory ID: | MB1009S1 | | | | | |
| Mercury | **ND** | 0.025 | EPA 7471B | 10-9-19 | 10-9-19 | |
| Laboratory ID: | MB1009SH1 | | | | | |
| Manganese | **ND** | 0.50 | EPA 6010D | 10-9-19 | 10-10-19 | |
| Laboratory ID: | MB1009SH1 | | | | | |
| Silver | **ND** | 0.63 | EPA 6020B | 10-9-19 | 10-10-19 | |
| Laboratory ID: | MB1010SH1 | | | | | |
| Iron | **ND** | 2.5 | EPA 6010D | 10-10-19 | 10-10-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | | Spike Level | | Source Result | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DUPLICATE** | | | | | | | | | | | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Arsenic | **38.3** | **34.5** | NA | NA | | NA | | NA | 10 | 20 | |
| Barium | **75.3** | **69.0** | NA | NA | | NA | | NA | 9 | 20 | |
| Lead | **6.75** | **6.50** | NA | NA | | NA | | NA | 4 | 20 | |
| Selenium | **0.315** | **0.288** | NA | NA | | NA | | NA | 9 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Mercury | **0.0412** | **0.0663** | NA | NA | | NA | | NA | 47 | 20 | C |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Manganese | **380** | **373** | NA | NA | | NA | | NA | 2 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Silver | **4.46** | **5.03** | NA | NA | | NA | | NA | 12 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Iron | **12300** | **13900** | NA | NA | | NA | | NA | 12 | 20 | |
| **MATRIX SPIKES** | | | | | | | | | | | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Arsenic | **131** | **126** | 100 | 100 | 38.3 | **93** | **87** | 75-125 | 4 | 20 | |
| Barium | **170** | **166** | 100 | 100 | 75.3 | **95** | **91** | 75-125 | 3 | 20 | |
| Lead | **234** | **235** | 250 | 250 | 6.75 | **91** | **91** | 75-125 | 1 | 20 | |
| Selenium | **93.8** | **92.5** | 100 | 100 | 0.315 | **93** | **92** | 75-125 | 1 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Mercury | **0.547** | **0.561** | 0.500 | 0.500 | 0.0412 | **101** | **104** | 80-120 | 3 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Manganese | **390** | **375** | 25.0 | 25.0 | 380 | **40** | **-20** | 75-125 | 4 | 20 | A |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| Silver | **25.8** | **24.6** | 25.0 | 25.0 | 4.46 | **85** | **81** | 75-125 | 4 | 20 | |
| Laboratory ID: | 10-077-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Iron | **11000** | **13400** | 1000 | 1000 | 12300 | **-129** | **110** | 75-125 | 20 | 20 | A |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | Spike Level | Source Result | Percent Recovery | Recovery Limits | Flags |
|---|---|---|---|---|---|---|
| **SPIKE BLANK** | | | | | | |
| Laboratory ID: | SB1009SM1 | | | | | |
| Arsenic | **94.3** | 100 | N/A | **94** | 80-120 | |
| Barium | **97.3** | 100 | N/A | **97** | 80-120 | |
| Lead | **239** | 250 | N/A | **96** | 80-120 | |
| Selenium | **108** | 100 | N/A | **108** | 80-120 | |
| Laboratory ID: | SB1009S1 | | | | | |
| Mercury | **0.518** | 0.500 | N/A | **104** | 80-120 | |
| Laboratory ID: | SB1009SH1 | | | | | |
| Manganese | **24.4** | 25.0 | N/A | **98** | 80-120 | |
| Laboratory ID: | SB1009SH1 | | | | | |
| Silver | **20.6** | 25.0 | N/A | **83** | 80-120 | |
| Laboratory ID: | SB1010SH1 | | | | | |
| Iron | **974** | 1000 | N/A | **97** | 80-120 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | ICV100919X | 0.0500 | 0.0506 | -1.2 | +/- 10% |
| Barium | ICV100919X | 0.0500 | 0.0515 | -3.0 | +/- 10% |
| Iron | ICV101019P | 1.00 | 1.03 | -3.0 | +/- 10% |
| Lead | ICV100919X | 0.0500 | 0.0517 | -3.4 | +/- 10% |
| Manganese | ICV100919P | 1.00 | 1.04 | -4.0 | +/- 10% |
| Mercury | ICV100919Y | 0.00500 | 0.00531 | -6.2 | +/- 10% |
| Selenium | ICV100919X | 0.0500 | 0.0525 | -5.0 | +/- 10% |
| Silver | ICV101019X | 0.0500 | 0.0497 | 0.60 | +/- 10% |
| Arsenic | LLV100919X | 0.000500 | 0.000537 | -7.4 | +/- 20% |
| Barium | LLV100919X | 0.000500 | 0.000492 | 1.6 | +/- 20% |
| Iron | LLV101019P | 0.0500 | 0.0530 | -6.0 | +/- 20% |
| Lead | LLV100919X | 0.000500 | 0.000476 | 4.8 | +/- 20% |
| Manganese | LLV100919P | 0.0100 | 0.0108 | -8.0 | +/- 20% |
| Selenium | LLV100919X | 0.000500 | 0.000529 | -5.8 | +/- 20% |
| Silver | LLV101019X | 0.000500 | 0.000508 | -1.6 | +/- 20% |
| Arsenic | CCV1100919X | 0.0400 | 0.0380 | 5.0 | +/- 10% |
| Barium | CCV1100919X | 0.0400 | 0.0407 | -1.8 | +/- 10% |
| Iron | CCV1101019P | 5.00 | 5.13 | -2.6 | +/- 10% |
| Lead | CCV1100919X | 0.0400 | 0.0406 | -1.5 | +/- 10% |
| Manganese | CCV1100919P | 1.00 | 1.00 | 0 | +/- 10% |
| Mercury | CCV1100919X | 0.00500 | 0.00525 | -5.0 | +/- 20% |
| Selenium | CCV1100919X | 0.0400 | 0.0412 | -3.0 | +/- 10% |
| Silver | CCV1101019X | 0.0400 | 0.0387 | 3.3 | +/- 10% |
| Arsenic | CCV2100919X | 0.0400 | 0.0386 | 3.5 | +/- 10% |
| Barium | CCV2100919X | 0.0400 | 0.0410 | -2.5 | +/- 10% |
| Iron | CCV21001019P | 5.00 | 5.26 | -5.2 | +/- 10% |
| Lead | CCV2100919X | 0.0400 | 0.0394 | 1.5 | +/- 10% |
| Manganese | CCV2100919P | 1.00 | 0.992 | 0.80 | +/- 10% |
| Mercury | CCV2100919X | 0.00500 | 0.00535 | -7.0 | +/- 20% |
| Selenium | CCV2100919X | 0.0400 | 0.0394 | 1.5 | +/- 10% |
| Silver | CCV2101019X | 0.0400 | 0.0405 | -1.3 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | CCV3100919X | 0.0400 | 0.0375 | 6.3 | +/- 10% |
| Barium | CCV3100919X | 0.0400 | 0.0416 | -4.0 | +/- 10% |
| Iron | CCV3101019P | 5.00 | 5.11 | -2.2 | +/- 10% |
| Lead | CCV3100919X | 0.0400 | 0.0399 | 0.25 | +/- 10% |
| Manganese | CCV3100919P | 1.00 | 0.991 | 0.90 | +/- 10% |
| Mercury | CCV3100919X | 0.00500 | 0.00544 | -8.8 | +/- 20% |
| Selenium | CCV3100919X | 0.0400 | 0.0378 | 5.5 | +/- 10% |
| Silver | CCV3100919X | 0.0400 | 0.0404 | -1.0 | +/- 10% |
| Arsenic | CCV4100919X | 0.0400 | 0.0387 | 3.3 | +/- 10% |
| Barium | CCV4100919X | 0.0400 | 0.0419 | -4.8 | +/- 10% |
| Iron | CCV4101019P | 5.00 | 5.19 | -3.8 | +/- 10% |
| Lead | CCV4100919X | 0.0400 | 0.0399 | 0.25 | +/- 10% |
| Manganese | CCV4100919P | 1.00 | 1.01 | -1.0 | +/- 10% |
| Mercury | CCV4100919X | 0.00500 | 0.00527 | -5.4 | +/- 20% |
| Selenium | CCV4100919X | 0.0400 | 0.0392 | 2.0 | +/- 10% |
| Silver | CCV4100919X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Iron | CCV5101019P | 5.00 | 5.10 | -2.0 | +/- 10% |
| Manganese | CCV5100919P | 1.00 | 0.990 | 1.0 | +/- 10% |
| Selenium | CCV5100919X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV6100919P | 1.00 | 1.00 | 0 | +/- 10% |
| Selenium | CCV6100919X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Manganese | CCV7100919P | 1.00 | 1.01 | -1.0 | +/- 10% |
| Manganese | CCV8100919P | 1.00 | 0.994 | 0.60 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 10, 2019
Samples Submitted: October 9, 2019
Laboratory Reference: 1910-112
Project: 4296-008-01

**% MOISTURE**

| Client ID | Lab ID | % Moisture | Date Analyzed |
|---|---|---|---|
| **SR08-CS-01-02** | 10-112-01 | **5** | 10-9-19 |
| **SR08-CS-02-02** | 10-112-02 | **5** | 10-9-19 |
| **SR08-CS-03-02** | 10-112-03 | **9** | 10-9-19 |
| **SR08-CS-04-02** | 10-112-04 | **8** | 10-9-19 |
| **SR08-CS-05-02** | 10-112-05 | **8** | 10-9-19 |
| **DUP-1** | 10-112-06 | **7** | 10-9-19 |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

**Data Qualifiers and Abbreviations**

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

# Chain of Custody

Page 1 of 1

**OnSite Environmental Inc.**
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers, Inc
Project Number: 4296-008-01
Project Name: Interim Remedial Action Design + Remedial Action
Project Manager: Nick Rohrbach (nrohrbach@geoengineers.com)
Sampled by: Justin Orr (jorr@geoengineers.com)

**Turnaround Request (in working days)**
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

**Laboratory Number:** 10-112

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers |
|---|---|---|---|---|---|
| 1 | SR08-CS-01-02 | 10/8/19 | 0720 | Soil | 1 |
| 2 | SR08-CS-02-02 | | 0735 | | 1 |
| 3 | SR08-CS-03-02 | | 0745 | | 1 |
| 4 | SR08-CS-04-02 | | 0800 | | 1 |
| 5 | SR08-CS-05-02 | | 0815 | | 1 |
| 6 | DUP-1 | | 0700 | | 1 |

| Lab ID | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Gx | NWTPH-Dx (☐ Acid / SG Clean-up) | Volatiles 8260C | Halogenated Volatiles 8260C | EDB EPA 8011 (Waters Only) | Semivolatiles 8270D/SIM (with low-level PAHs) | PAHs 8270D/SIM (low-level) | PCBs 8082A | Organochlorine Pesticides 8081B | Organophosphorus Pesticides 8270D/SIM | Chlorinated Acid Herbicides 8151A | Total RCRA Metals | Total MTCA Metals | TCLP Metals | HEM (oil and grease) 1664A | ★ Metals 6010/6020B/7471B | | | | % Moisture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | X | | | | X |
| 2 | | | | | | | | | | | | | | | | | | X | | | | X |
| 3 | | | | | | | | | | | | | | | | | | X | | | | X |
| 4 | | | | | | | | | | | | | | | | | | X | | | | X |
| 5 | | | | | | | | | | | | | | | | | | X | | | | X |
| 6 | | | | | | | | | | | | | | | | | | X | | | | X |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | | GEI | 10/8/19 | 1100 |
| Received | | OSE | 10/9/19 | 1300 |
| Relinquished | | | | |
| Received | | | | |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Reviewed/Date | | |

**Comments/Special Instructions**
★ Arsenic, barium, iron, lead, manganese, mercury, selenium, silver

Data Package: Standard ☐ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

# Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 4296-008-01

OnSite Project Number: 10-112

Initiated by: MM

Date Initiated: 10/9/19

## 1.0 Cooler Verification

| | | | | |
|---|---|---|---|---|
| 1.1 Were there custody seals on the outside of the cooler? | Yes | (No) | N/A | 1 2 3 4 |
| 1.2 Were the custody seals intact? | Yes | No | (N/A) | 1 2 3 4 |
| 1.3 Were the custody seals signed and dated by last custodian? | Yes | No | (N/A) | 1 2 3 4 |
| 1.4 Were the samples delivered on ice or blue ice? | (Yes) | No | | 1 2 3 4 |
| 1.5 Were samples received between 0-6 degrees Celsius? | (Yes) | No | Temperature: 3 | |
| 1.6 Have shipping bills (if any) been attached to the back of this form? | (Yes) | N/A | | |
| 1.7 How were the samples delivered? | Client | Courier | (UPS/FedEx) | OSE Pickup Other |

## 2.0 Chain of Custody Verification

| | | | |
|---|---|---|---|
| 2.1 Was a Chain of Custody submitted with the samples? | (Yes) | No | 1 2 3 4 |
| 2.2 Was the COC legible and written in permanent ink? | (Yes) | No | 1 2 3 4 |
| 2.3 Have samples been relinquished and accepted by each custodian? | (Yes) | No | 1 2 3 4 |
| 2.4 Did the sample labels (ID, date, time, preservative) agree with COC? | (Yes) | No | 1 2 3 4 |
| 2.5 Were all of the samples listed on the COC submitted? | (Yes) | No | 1 2 3 4 |
| 2.6 Were any of the samples submitted omitted from the COC? | Yes | (No) | 1 2 3 4 |

## 3.0 Sample Verification

| | | | | |
|---|---|---|---|---|
| 3.1 Were any sample containers broken or compromised? | Yes | (No) | | 1 2 3 4 |
| 3.2 Were any sample labels missing or illegible? | Yes | (No) | | 1 2 3 4 |
| 3.3 Have the correct containers been used for each analysis requested? | (Yes) | No | | 1 2 3 4 |
| 3.4 Have the samples been correctly preserved? | Yes | No | (N/A) | 1 2 3 4 |
| 3.5 Are volatiles samples free from headspace and bubbles greater than 6mm? | Yes | No | (N/A) | 1 2 3 4 |
| 3.6 Is there sufficient sample submitted to perform requested analyses? | (Yes) | No | | 1 2 3 4 |
| 3.7 Have any holding times already expired or will expire in 24 hours? | Yes | (No) | | 1 2 3 4 |
| 3.8 Was method 5035A used? | Yes | No | (N/A) | 1 2 3 4 |
| 3.9 If 5035A was used, which sampling option was used (#1, 2, or 3). | # | | (N/A) | 1 2 3 4 |

**Explain any discrepancies:**

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

# Total Metals
# EPA 6010D/6020B/7471B Data

# RAW DATA

- Total Metals EPA 6010D/6020B/7471B

**Report Generated By CETAC QuickTrace**
**Analyst:** kmckinney
**Worksheet file:** C:\Program Files\QuickTrace\Worksheets\10 October 2019\Y191009S1.wsz
**Date Started:** 10/9/2019 12:39:48 PM
**Comment:**

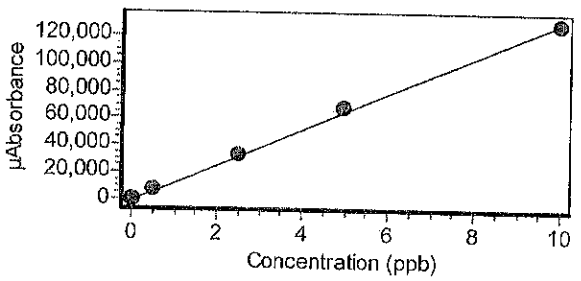
10/9/19
mm

# *Results*

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| Calibration Blank | STD | 10/09/19 12:45:45 pm | 0.000 | -34 | 33.94 | |
| Standard 0.05 ppb | STD | 10/09/19 12:47:37 pm | 0.050 | 660 | 0.93 | |
| Standard 0.5 ppb | STD | 10/09/19 12:49:30 pm | 0.500 | 6956 | 0.17 | |
| Standard 2.5 ppb | STD | 10/09/19 12:51:24 pm | 2.500 | 33759 | 0.50 | |
| Standard 5.0 ppb | STD | 10/09/19 12:53:17 pm | 5.000 | 68105 | 0.21 | |
| Standard 10.0 ppb | STD | 10/09/19 12:55:12 pm | 10.000 | 127775 | 0.13 | |

Calibration

Equation: A = -34.437 + 12979.230C
R2: 0.99848
SEE: 2346.3100
Flags:




| | | | | | | |
|---|---|---|---|---|---|---|
| ICV<br>% Recovery 106.17 | ICV | 10/09/19 12:57:08 pm | 5.308 | 68863 | 0.29 | |
| ICB | ICB | 10/09/19 12:58:59 pm | -0.009 | -155 | 1.97 | |
| CCV<br>% Recovery 105.05 | CCV | 10/09/19 01:00:53 pm | 5.253 | 68140 | 0.22 | |
| CCB | CCB | 10/09/19 01:02:45 pm | -0.012 | -190 | 1.18 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| MB1009S2 | UNK | 10/09/19 01:04:36 pm | -0.001 | -52 | 48.04 | |
| SB1009S2 | UNK | 10/09/19 01:06:28 pm | 5.183 | 67240 | 0.17 | |
| 10-077-01 | UNK | 10/09/19 01:08:20 pm | 0.412 | 5307 | 0.25 | |
| 10-077-01 DUP | UNK | 10/09/19 01:10:13 pm | 0.663 | 8576 | 0.29 | |
| 10-077-01 L | UNK | 10/09/19 01:12:07 pm | 0.091 | 1149 | 0.69 | |
| 10-077-01 MS | UNK | 10/09/19 01:14:00 pm | 5.470 | 70967 | 0.51 | |
| 10-077-01 MSD | UNK | 10/09/19 01:15:54 pm | 5.611 | 72796 | 0.12 | |
| 10-077-02 | UNK | 10/09/19 01:17:49 pm | 0.302 | 3882 | 0.19 | |
| 10-077-03 | UNK | 10/09/19 01:19:40 pm | 2.518 | 32652 | 0.66 | |
| 10-077-04 | UNK | 10/09/19 01:21:32 pm | 19.641 | 254886 | 0.27 | O |
| CCV | CCV | 10/09/19 01:23:26 pm | 5.353 | 69445 | 0.60 | |
| % Recovery 107.06 | | | | | | |
| CCB | CCB | 10/09/19 01:25:17 pm | -0.018 | -267 | 5.23 | |
| 10-077-05 | UNK | 10/09/19 01:27:10 pm | 0.649 | 8395 | 0.17 | |
| 10-077-06 | UNK | 10/09/19 01:29:02 pm | 0.634 | 8189 | 0.13 | |
| 10-077-07 | UNK | 10/09/19 01:30:56 pm | 1.278 | 16558 | 0.43 | |
| 10-077-08 | UNK | 10/09/19 01:32:49 pm | 1.530 | 19823 | 0.26 | |
| 10-077-09 | UNK | 10/09/19 01:34:44 pm | 1.175 | 15209 | 0.27 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| 10-038-01 | UNK | 10/09/19 01:36:36 pm | 0.026 | 307 | 1.67 | |
| CCV | CCV | 10/09/19 01:38:30 pm | 5.437 | 70536 | 0.10 | |
| % Recovery 108.74 | | | | | | |
| CCB | CCB | 10/09/19 01:40:21 pm | -0.010 | -160 | 2.77 | |
| 10-077-04 5X | UNK | 10/09/19 02:25:31 pm | 4.417 | 57300 | 0.27 | |
| 10-112-01 | UNK | 10/09/19 02:27:23 pm | 0.846 | 10948 | 0.57 | |
| 10-112-02 | UNK | 10/09/19 02:29:15 pm | 1.129 | 14624 | 0.15 | |
| 10-112-03 | UNK | 10/09/19 02:31:08 pm | 0.309 | 3971 | 0.61 | |
| 10-112-04 | UNK | 10/09/19 02:33:01 pm | 1.058 | 13696 | 0.44 | |
| 10-112-05 | UNK | 10/09/19 02:34:55 pm | 1.170 | 15157 | 0.60 | |
| 10-112-06 | UNK | 10/09/19 02:36:49 pm | 4.619 | 59911 | 0.19 | |
| CCV | CCV | 10/09/19 02:38:43 pm | 5.267 | 68328 | 0.07 | |
| % Recovery 105.34 | | | | | | |
| CCB | CCB | 10/09/19 02:40:35 pm | -0.010 | -165 | 12.60 | |

P191009F1. Rack Loading Guide 10/10/2019, 3:40:14 PM

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | 10-063-29 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | 10-063-30 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-063-31 | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-063-32 | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-063-33 | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-063-34 | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 17 | MB1009SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 18 | SB1009SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-077-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-077-01 D | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-077-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | 10-077-01 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | 10-077-01 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | 10-077-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 25 | 10-077-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 28 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 29 | SB1009SH1 X 2 | Samp | 1.0000 | 1.00 | 1.00 |
| 30 | 10-077-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | 10-077-01 D X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 32 | 10-077-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 33 | 10-077-01 MS X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-077-01 MSD X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | 10-077-02 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 36 | 10-077-03 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 37 | 10-077-04 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-077-05 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 40 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 41 | 10-077-06 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 42 | 10-077-01 MS X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | 10-077-01 MSD X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 44 | 10-077-07 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 45 | 10-077-08 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-077-09 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | 10-077-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 48 | 10-077-05 | Samp | 1.0000 | 1.00 | 1.00 |
| 49 | BLK | Samp | 1.0000 | 1.00 | 1.00 |

P191009F1. Rack Loading Guide 10/10/2019, 3:40:14 PM

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 50 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 51 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 52 | MB1009SM2 | Samp | 1.0000 | 1.00 | 1.00 |
| 53 | SB1009SM2 | Samp | 1.0000 | 1.00 | 1.00 |
| 54 | 10-095-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 55 | 10-095-04 D | Samp | 1.0000 | 1.00 | 1.00 |
| 56 | 10-095-04 L | Samp | 1.0000 | 1.00 | 1.00 |
| 57 | 10-095-04 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 58 | 10-095-04 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 59 | 10-082-02b | Samp | 1.0000 | 1.00 | 1.00 |
| 60 | 10-078-01a | Samp | 1.0000 | 1.00 | 1.00 |

Rack: 2 Type: 12 x 150 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Blank | Blk | 1.0000 | 1.00 | 1.00 |
| 2 | Standard 6 | Std | 1.0000 | 1.00 | 1.00 |
| 3 | Standard 5 | Std | 1.0000 | 1.00 | 1.00 |
| 4 | Standard 4 | Std | 1.0000 | 1.00 | 1.00 |
| 5 | Standard 3 | Std | 1.0000 | 1.00 | 1.00 |
| 6 | Standard 2 | Std | 1.0000 | 1.00 | 1.00 |
| 7 | Standard 1 | Std | 1.0000 | 1.00 | 1.00 |
| 8 | Standard 7 | Std | 1.0000 | 1.00 | 1.00 |

Rack: 3 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | 10-116-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 2 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 3 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 4 | 10-116-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 5 | 10-116-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 6 | 10-116-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | 10-095-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | 10-095-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | 10-095-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-066-10a | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-066-12a | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-066-14a | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-066-18a | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 15 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 16 | 10-038-01(1009SH1) | Samp | 1.0000 | 1.00 | 1.00 |
| 17 | 10-112-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 18 | 10-112-02 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-112-03 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-112-04 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-112-05 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | 10-112-06 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 25 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 26 | 10-124-01(1009SM2) | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-124-02 | Samp | 1.0000 | 1.00 | 1.00 |

P191009F1. All Data Report 10/10/2019, 3:41:13 PM

**Blank (Blk)** **10/9/2019, 9:09:50 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | -0.000 | 0.000 | 0.000 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 0.000 | ppb | 0.635 | 15.6 | 4.078 |

**Standard 5 (Std)** **10/9/2019, 9:38:38 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 0.011 | 0.011 | 0.011 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 10.000 | ppb | 4.310 | 3.4 | 128.52 |

**Standard 4 (Std)** **10/9/2019, 9:18:27 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 0.106 | 0.107 | 0.108 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 100.00 | ppb | 8.418 | 0.7 | 1206.6 |

**Standard 3 (Std)** **10/9/2019, 9:22:46 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 0.997 | 1.005 | 1.013 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 1000.0 | ppb | 89.836 | 0.8 | 11312 |

**Standard 2 (Std)** **10/9/2019, 9:27:05 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Mn 257.610 | 2.468 | 2.488 | 2.537 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Mn 257.610 | 2500.0 | ppb | 398.695 | 1.4 | 28113 |

**Mn 257.610 Calibration (ppm)** **10/9/2019, 9:38:38 AM** **Correlation Coefficient: 0.999996**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.078 | 0.000 | 0.000 | - | - |
| Standard 5 | | 128.52 | 0.010 | 0.011 | 0.001 | 10.6 |
| Standard 4 | | 1206.6 | 0.100 | 0.107 | 0.007 | 6.9 |
| Standard 3 | | 11312 | 1.000 | 1.005 | 0.005 | 0.5 |
| Standard 2 | | 28113 | 2.500 | 2.498 | -0.002 | -0.1 |

Curve Type: Linear Equation: $y = 11253.6\,x + 4.1$

P191009F1. Mean Only Report 10/10/2019, 3:54:16 PM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Mn 257.610 | 0.000 | ppb | 10/9/2019, 9:09:50 AM |
| Standard 5 | Mn 257.610 | 10.000 | ppb | 10/9/2019, 9:38:38 AM |
| Standard 4 | Mn 257.610 | 100.00 | ppb | 10/9/2019, 9:18:27 AM |
| Standard 3 | Mn 257.610 | 1000.0 | ppb | 10/9/2019, 9:22:46 AM |
| Standard 2 | Mn 257.610 | 2500.0 | ppb | 10/9/2019, 9:27:05 AM |
| Initial Calib Verif | Mn 257.610 | 1039.2 | ppb | 10/9/2019, 9:50:57 AM |
| Initial Calib Blank | Mn 257.610 | 0.393uv | ppb | 10/9/2019, 9:56:47 AM |
| LLV | Mn 257.610 | 10.806 | ppb | 10/9/2019, 10:01:06 AM |
| Cont Calib Verif | Mn 257.610 | 1000.4 | ppb | 10/9/2019, 10:11:45 AM |
| Cont Calib Blank | Mn 257.610 | 0.418 | ppb | 10/9/2019, 10:16:03 AM |
| ICSA | Mn 257.610 | 0.405 | ppb | 10/9/2019, 10:20:21 AM |
| ICSAB | Mn 257.610 | 463.29 | ppb | 10/9/2019, 10:24:41 AM |
| 10-063-29 | Mn 257.610 | 9136.0 | ppb | 10/9/2019, 11:40:02 AM |
| 10-063-30 | Mn 257.610 | 7597.0 | ppb | 10/9/2019, 11:44:22 AM |
| 10-063-31 | Mn 257.610 | 6822.4 | ppb | 10/9/2019, 11:48:43 AM |
| 10-063-32 | Mn 257.610 | 8507.1 | ppb | 10/9/2019, 11:53:01 AM |
| 10-063-33 | Mn 257.610 | 5384.3 | ppb | 10/9/2019, 11:57:21 AM |
| 10-063-34 | Mn 257.610 | 5344.4 | ppb | 10/9/2019, 12:01:40 PM |
| BLK | Mn 257.610 | 3.372 | ppb | 10/9/2019, 12:06:00 PM |
| Cont Calib Verif | Mn 257.610 | 991.71 | ppb | 10/9/2019, 12:10:19 PM |
| Cont Calib Blank | Mn 257.610 | 0.161uv | ppb | 10/9/2019, 12:14:38 PM |
| MB1009SH1 | Mn 257.610 | 2.204 | ppb | 10/9/2019, 12:54:19 PM |
| SB1009SH1 | Mn 257.610 | 488.16 | ppb | 10/9/2019, 12:58:39 PM |
| 10-077-01 | Mn 257.610 | 6296.7 | ppb | 10/9/2019, 1:02:58 PM |
| 10-077-01 D | Mn 257.610 | 6035.5 | ppb | 10/9/2019, 1:07:17 PM |
| 10-077-01 L | Mn 257.610 | 1429.0 | ppb | 10/9/2019, 1:11:36 PM |
| 10-077-01 MS | Mn 257.610 | 6871.6 | ppb | 10/9/2019, 1:15:55 PM |
| 10-077-01 MSD | Mn 257.610 | 7033.0 | ppb | 10/9/2019, 1:20:14 PM |
| 10-077-02 | Mn 257.610 | 5803.7 | ppb | 10/9/2019, 1:24:33 PM |
| 10-077-03 | Mn 257.610 | 2693.1 | ppb | 10/9/2019, 1:28:52 PM |
| BLK | Mn 257.610 | 1.499 | ppb | 10/9/2019, 1:33:11 PM |
| Cont Calib Verif | Mn 257.610 | 991.38 | ppb | 10/9/2019, 1:37:29 PM |
| Cont Calib Blank | Mn 257.610 | 0.027uv | ppb | 10/9/2019, 1:41:49 PM |
| SB1009SH1 X 2 | Mn 257.610 | 234.09 | ppb | 10/9/2019, 1:48:52 PM |
| 10-077-01 X 50 | Mn 257.610 | 152.05 | ppb | 10/9/2019, 1:53:11 PM |
| 10-077-01 D X 50 | Mn 257.610 | 149.88 | ppb | 10/9/2019, 1:57:30 PM |
| 10-077-01 L | Mn 257.610 | 30.831 | ppb | 10/9/2019, 2:01:49 PM |
| 10-077-01 MS X 50 | Mn 257.610 | 339.61 | ppb | 10/9/2019, 2:06:07 PM |
| 10-077-01 MSD X 50 | Mn 257.610 | 338.95 | ppb | 10/9/2019, 2:10:26 PM |
| 10-077-02 X 50 | Mn 257.610 | 145.71 | ppb | 10/9/2019, 2:14:46 PM |
| 10-077-03 X 50 | Mn 257.610 | 59.630 | ppb | 10/9/2019, 2:19:06 PM |
| 10-077-04 X 50 | Mn 257.610 | 0.401 | ppb | 10/9/2019, 2:25:31 PM |
| 10-077-05 X 50 | Mn 257.610 | 58.078 | ppb | 10/9/2019, 2:29:49 PM |
| Cont Calib Verif | Mn 257.610 | 1006.1 | ppb | 10/9/2019, 2:34:08 PM |
| Cont Calib Blank | Mn 257.610 | -0.127uv | ppb | 10/9/2019, 2:38:27 PM |
| 10-077-06 X 50 | Mn 257.610 | 115.89 | ppb | 10/9/2019, 2:43:00 PM |
| 10-077-01 MS X 50 | Mn 257.610 | 155.84 | ppb | 10/9/2019, 2:50:29 PM |
| 10-077-01 MSD X 50 | Mn 257.610 | 150.04 | ppb | 10/9/2019, 2:56:17 PM |
| 10-077-07 X 50 | Mn 257.610 | 113.54 | ppb | 10/9/2019, 3:00:38 PM |
| 10-077-08 X 50 | Mn 257.610 | 185.12 | ppb | 10/9/2019, 3:04:57 PM |
| 10-077-09 X 50 | Mn 257.610 | 221.21 | ppb | 10/9/2019, 3:09:17 PM |
| 10-077-04 | Mn 257.610 | 31.330 | ppb | 10/9/2019, 3:13:36 PM |

P191009F1. Mean Only Report 10/10/2019, 3:54:16 PM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| 10-077-05 | Mn 257.610 | 2663.8 | ppb | 10/9/2019, 3:17:55 PM |
| BLK | Mn 257.610 | 0.762 | ppb | 10/9/2019, 3:22:14 PM |
| Cont Calib Verif | Mn 257.610 | 990.42 | ppb | 10/9/2019, 3:26:32 PM |
| Cont Calib Blank | Mn 257.610 | 0.228 | ppb | 10/9/2019, 3:30:51 PM |
| MB1009SM2 | Mn 257.610 | 0.942 | ppb | 10/9/2019, 3:35:11 PM |
| SB1009SM2 | Mn 257.610 | 1.980 | ppb | 10/9/2019, 3:39:31 PM |
| 10-095-04 | Mn 257.610 | 3036.2 | ppb | 10/9/2019, 3:43:51 PM |
| 10-095-04 D | Mn 257.610 | 2764.7 | ppb | 10/9/2019, 3:48:10 PM |
| 10-095-04 L | Mn 257.610 | 625.63 | ppb | 10/9/2019, 3:52:30 PM |
| 10-095-04 MS | Mn 257.610 | 2873.3 | ppb | 10/9/2019, 3:56:49 PM |
| 10-095-04 MSD | Mn 257.610 | 2797.5 | ppb | 10/9/2019, 4:01:09 PM |
| 10-082-02b | Mn 257.610 | 4220.1 | ppb | 10/9/2019, 4:08:49 PM |
| 10-078-01a | Mn 257.610 | 2602.1 | ppb | 10/9/2019, 4:13:08 PM |
| 10-116-01 | Mn 257.610 | 7558.2 | ppb | 10/9/2019, 4:19:03 PM |
| Cont Calib Verif | Mn 257.610 | 1001.2 | ppb | 10/9/2019, 4:23:22 PM |
| Cont Calib Blank | Mn 257.610 | 0.579 | ppb | 10/9/2019, 4:27:41 PM |
| 10-116-02 | Mn 257.610 | 8809.3 | ppb | 10/9/2019, 4:34:42 PM |
| 10-116-03 | Mn 257.610 | 8281.6 | ppb | 10/9/2019, 4:39:01 PM |
| 10-116-04 | Mn 257.610 | 7902.6 | ppb | 10/9/2019, 4:43:21 PM |
| 10-095-01 | Mn 257.610 | 4112.5 | ppb | 10/9/2019, 4:47:40 PM |
| 10-095-02 | Mn 257.610 | 4679.3 | ppb | 10/9/2019, 4:52:00 PM |
| 10-095-03 | Mn 257.610 | 3975.8 | ppb | 10/9/2019, 4:56:19 PM |
| 10-066-10a | Mn 257.610 | 7288.8 | ppb | 10/9/2019, 5:00:38 PM |
| 10-066-12a | Mn 257.610 | 2946.7 | ppb | 10/9/2019, 5:04:57 PM |
| 10-066-14a | Mn 257.610 | 3204.2 | ppb | 10/9/2019, 5:09:17 PM |
| 10-066-18a | Mn 257.610 | 3730.2 | ppb | 10/9/2019, 5:13:36 PM |
| Cont Calib Verif | Mn 257.610 | 1013.1 | ppb | 10/9/2019, 5:17:55 PM |
| Cont Calib Blank | Mn 257.610 | 0.559 | ppb | 10/9/2019, 5:22:14 PM |
| 10-038-01(1009SH1) | Mn 257.610 | 2575.0 | ppb | 10/9/2019, 5:29:04 PM |
| 10-112-01 X 50 | Mn 257.610 | 147.33 | ppb | 10/9/2019, 5:33:22 PM |
| 10-112-02 X 50 | Mn 257.610 | 168.70 | ppb | 10/9/2019, 5:39:33 PM |
| 10-112-03 X 50 | Mn 257.610 | 128.41 | ppb | 10/9/2019, 5:43:53 PM |
| 10-112-04 X 50 | Mn 257.610 | 129.46 | ppb | 10/9/2019, 5:48:12 PM |
| 10-112-05 X 50 | Mn 257.610 | 134.60 | ppb | 10/9/2019, 5:52:30 PM |
| 10-112-06 X 50 | Mn 257.610 | 145.87 | ppb | 10/9/2019, 5:56:49 PM |
| BLK | Mn 257.610 | 0.605 | ppb | 10/9/2019, 6:01:08 PM |
| Cont Calib Verif | Mn 257.610 | 993.64 | ppb | 10/9/2019, 6:05:28 PM |
| Cont Calib Blank | Mn 257.610 | 0.098uv | ppb | 10/9/2019, 6:09:47 PM |

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | MB1010TM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | SB1010TM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-079-01a | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-079-01a D | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-079-01a L | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-079-01a MS | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | 10-079-01a MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | 10-066-23a | Samp | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 17 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 18 | 10-038-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 20 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 21 | MB1010SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | SB1010SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | 10-077-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | 10-077-01 D X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 25 | 10-077-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | 10-077-01 MS X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-077-01 MSD X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 28 | 10-077-02 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 29 | 10-077-03 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 30 | 10-077-04 X 5 | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 32 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 33 | 10-077-05 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-077-06 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | 10-077-07 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 36 | 10-077-08 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 37 | 10-077-09 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-112-01 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | 10-112-02 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 40 | 10-112-03 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 41 | 10-112-04 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 42 | 10-112-05 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 44 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 45 | 10-112-06 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-077-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 48 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 49 | | Samp | 1.0000 | 1.00 | 1.00 |

P191010F1. All Data Report 10/10/2019, 3:42:28 PM

**Blank (Blk)** **10/10/2019, 9:38:09 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.000 | 0.001 | -0.001 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 0.000 | ppb | 0.827 | 20.2 | 4.098 |

**Standard 5 (Std)** **10/10/2019, 10:16:53 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.060 | 0.058 | 0.060 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 50.000 | ppb | 0.998 | 1.8 | 56.638 |

**Standard 4 (Std)** **10/10/2019, 9:46:47 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.513 | 0.521 | 0.524 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 500.00 | ppb | 4.852 | 1.0 | 462.98 |

**Standard 3 (Std)** **10/10/2019, 9:51:07 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 5.045 | 5.086 | 5.115 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 5000.0 | ppb | 30.996 | 0.7 | 4493.8 |

**Standard 2 (Std)** **10/10/2019, 9:55:26 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 12.143 | 12.322 | 12.427 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 12500 | ppb | 127.036 | 1.2 | 10868 |

**Standard 1 (Std)** **10/10/2019, 9:59:45 AM** **Rack 2, Tube 7**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 24.994 | 24.927 | 25.333 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 25000 | ppb | 192.140 | 0.9 | 22166 |

P191010F1. All Data Report 10/10/2019, 3:42:28 PM

**Fe 259.940 Calibration (ppm)** **10/10/2019, 10:16:53 AM** **Correlation Coefficient: 0.999944**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.098 | 0.000 | 0.000 | - | - |
| Standard 5 | | 56.638 | 0.050 | 0.059 | 0.009 | 18.9 |
| Standard 4 | | 462.98 | 0.500 | 0.519 | 0.019 | 3.9 |
| Standard 3 | | 4493.8 | 5.000 | 5.082 | 0.082 | 1.6 |
| Standard 2 | | 10868 | 12.500 | 12.297 | -0.203 | -1.6 |
| Standard 1 | | 22166 | 25.000 | 25.085 | 0.085 | 0.3 |

Curve Type: Linear Equation: $y = 883.5 x + 4.1$

P191010F1. Mean Only Report 10/10/2019, 3:44:43 PM KH 10/10/19

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Fe 259.940 | 0.000 | ppb | 10/10/2019, 9:38:09 AM |
| Standard 5 | Fe 259.940 | 50.000 | ppb | 10/10/2019, 10:16:53 AM |
| Standard 4 | Fe 259.940 | 500.00 | ppb | 10/10/2019, 9:46:47 AM |
| Standard 3 | Fe 259.940 | 5000.0 | ppb | 10/10/2019, 9:51:07 AM |
| Standard 2 | Fe 259.940 | 12500 | ppb | 10/10/2019, 9:55:26 AM |
| Standard 1 | Fe 259.940 | 25000 | ppb | 10/10/2019, 9:59:45 AM |
| Initial Calib Verif | Fe 259.940 | 1034.8 | ppb | 10/10/2019, 10:23:20 AM |
| Initial Calib Blank | Fe 259.940 | 31.338 | ppb | 10/10/2019, 10:29:50 AM |
| LLV | Fe 259.940 | 52.976 | ppb | 10/10/2019, 10:53:37 AM |
| Cont Calib Verif | Fe 259.940 | 5133.7 | ppb | 10/10/2019, 10:59:44 AM |
| Cont Calib Blank | Fe 259.940 | 6.586 | ppb | 10/10/2019, 11:04:02 AM |
| ICSA | Fe 259.940 | 155730x | ppb | 10/10/2019, 11:08:21 AM |
| ICSAB | Fe 259.940 | 152194x | ppb | 10/10/2019, 11:13:15 AM |
| MB1010TM1 | Fe 259.940 | 39.128 | ppb | 10/10/2019, 11:20:03 AM |
| SB1010TM1 | Fe 259.940 | 307.19 | ppb | 10/10/2019, 11:24:24 AM |
| 10-079-01a | Fe 259.940 | 857.47 | ppb | 10/10/2019, 11:28:45 AM |
| 10-079-01a D | Fe 259.940 | 946.91 | ppb | 10/10/2019, 11:33:04 AM |
| 10-079-01a L | Fe 259.940 | 228.67 | ppb | 10/10/2019, 11:37:23 AM |
| 10-079-01a MS | Fe 259.940 | 906.18 | ppb | 10/10/2019, 11:41:41 AM |
| 10-079-01a MSD | Fe 259.940 | 861.76 | ppb | 10/10/2019, 11:45:59 AM |
| 10-066-23a | Fe 259.940 | 1237.8 | ppb | 10/10/2019, 11:50:18 AM |
| Cont Calib Verif | Fe 259.940 | 5259.5 | ppb | 10/10/2019, 11:54:36 AM |
| Cont Calib Blank | Fe 259.940 | 41.210 | ppb | 10/10/2019, 11:58:55 AM |
| 10-038-01 | Fe 259.940 | 1.870uv | ppb | 10/10/2019, 12:06:27 PM |
| Cont Calib Verif | Fe 259.940 | 5033.1 | ppb | 10/10/2019, 12:34:32 PM |
| Cont Calib Blank | Fe 259.940 | 17.033 | ppb | 10/10/2019, 12:38:51 PM |
| MB1010SH1 | Fe 259.940 | 32.832 | ppb | 10/10/2019, 1:28:01 PM |
| SB1010SH1 | Fe 259.940 | 19479 | ppb | 10/10/2019, 1:32:21 PM |
| 10-077-01 X 50 | Fe 259.940 | 4912.0 | ppb | 10/10/2019, 1:36:40 PM |
| 10-077-01 D X 50 | Fe 259.940 | 5550.2 | ppb | 10/10/2019, 1:40:57 PM |
| 10-077-01 L | Fe 259.940 | 991.24 | ppb | 10/10/2019, 1:45:17 PM |
| 10-077-01 MS X 50 | Fe 259.940 | 4396.7 | ppb | 10/10/2019, 1:50:59 PM |
| 10-077-01 MSD X 50 | Fe 259.940 | 5350.5 | ppb | 10/10/2019, 1:55:20 PM |
| 10-077-02 X 20 | Fe 259.940 | 18278 | ppb | 10/10/2019, 1:59:39 PM |
| 10-077-03 X 20 | Fe 259.940 | 10404 | ppb | 10/10/2019, 2:03:56 PM |
| 10-077-04 X 5 | Fe 259.940 | 19604 | ppb | 10/10/2019, 2:08:15 PM |
| Cont Calib Verif | Fe 259.940 | 5108.4 | ppb | 10/10/2019, 2:12:34 PM |
| Cont Calib Blank | Fe 259.940 | 5.685 | ppb | 10/10/2019, 2:16:53 PM |
| 10-077-05 X 20 | Fe 259.940 | 10421 | ppb | 10/10/2019, 2:25:29 PM |
| 10-077-06 X 20 | Fe 259.940 | 20358 | ppb | 10/10/2019, 2:29:48 PM |
| 10-077-07 X 20 | Fe 259.940 | 16727 | ppb | 10/10/2019, 2:34:08 PM |
| 10-077-08 X 20 | Fe 259.940 | 26224 | ppb | 10/10/2019, 2:38:28 PM |
| 10-077-09 X 20 | Fe 259.940 | 25543 | ppb | 10/10/2019, 2:42:47 PM |
| 10-112-01 X 20 | Fe 259.940 | 24801 | ppb | 10/10/2019, 2:47:06 PM |
| 10-112-02 X 20 | Fe 259.940 | 24508 | ppb | 10/10/2019, 2:51:25 PM |
| 10-112-03 X 20 | Fe 259.940 | 17897 | ppb | 10/10/2019, 2:55:43 PM |
| 10-112-04 X 20 | Fe 259.940 | 18843 | ppb | 10/10/2019, 3:00:01 PM |
| 10-112-05 X 20 | Fe 259.940 | 19503 | ppb | 10/10/2019, 3:04:19 PM |
| Cont Calib Verif | Fe 259.940 | 5186.3 | ppb | 10/10/2019, 3:08:39 PM |
| Cont Calib Blank | Fe 259.940 | 25.014 | ppb | 10/10/2019, 3:12:59 PM |
| 10-112-06 X 20 | Fe 259.940 | 19996 | ppb | 10/10/2019, 3:17:45 PM |
| 10-077-04 | Fe 259.940 | 87604 | ppb | 10/10/2019, 3:22:05 PM |

P191010F1. Mean Only Report 10/10/2019, 3:44:43 PM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Cont Calib Verif | Fe 259.940 | 5102.4 | ppb | 10/10/2019, 3:27:31 PM |
| Cont Calib Blank | Fe 259.940 | 36.364 | ppb | 10/10/2019, 3:31:49 PM |

10-10-19
KDM

# Dataset Report

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexION Data\DataSet\X191010A\
Report Date/Time: Thursday, October 10, 2019 11:36:55

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| SmartTune - T | Torch Alignment | 07:26:14 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Torch Alignment.001 | |
| SmartTune - T | Torch Alignment | 07:26:49 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Torch Alignment.002 | |
| SmartTune - N | Nebulizer Gas Flow S | 07:29:56 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Nebulizer Gas Flow STD-KED [NEB].00 | |
| SmartTune - D | Daily Performance Ch | 07:32:32 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Daily Performance Check.004 | |
| SmartTune - D | Daily Performance Ch | 07:35:46 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Daily Performance Check.005 | |
| SmartTune - D | Daily Performance Ch | 07:38:12 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Daily Performance Check.006 | |
| SmartTune - M | Mass Calibration and R | 07:42:13 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\Mass Calibration and Resolution.007 | |
| | Blank | 09:06:39 Thu 10-O | Blank | C:\NexION Data\DataSet\X191010A\Blank.033 | |
| | Standard 2 | 09:08:41 Thu 10-O | Standard #2 | C:\NexION Data\DataSet\X191010A\Standard 2.034 | |
| | Standard 3 | 09:10:44 Thu 10-O | Standard #3 | C:\NexION Data\DataSet\X191010A\Standard 3.035 | |
| | Standard 4 | 09:12:48 Thu 10-O | Standard #4 | C:\NexION Data\DataSet\X191010A\Standard 4.036 | |
| | Standard 5 | 09:14:50 Thu 10-O | Standard #5 | C:\NexION Data\DataSet\X191010A\Standard 5.037 | |
| | Standard 6 | 09:16:53 Thu 10-O | Standard #6 | C:\NexION Data\DataSet\X191010A\Standard 6.038 | |
| | Standard 7 | 09:18:55 Thu 10-O | Standard #7 | C:\NexION Data\DataSet\X191010A\Standard 7.039 | |
| | QC Std 1 | 09:21:48 Thu 10-O | QC Std #1 | C:\NexION Data\DataSet\X191010A\QC Std 1.040 | |
| | QC Std 2 | 09:24:40 Thu 10-O | QC Std #2 | C:\NexION Data\DataSet\X191010A\QC Std 2.041 | |
| | QC Std 4 | 09:26:42 Thu 10-O | QC Std #4 | C:\NexION Data\DataSet\X191010A\QC Std 4.042 | |
| | QC Std 6 | 09:29:35 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.043 | |
| | QC Std 8 | 09:32:27 Thu 10-O | QC Std #8 | C:\NexION Data\DataSet\X191010A\QC Std 8.044 | |
| | ICSA | 09:34:29 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\ICSA.045 | |
| | ICSAB | 09:40:12 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\ICSAB.046 | |
| | MB1009SH1 25X | 09:47:29 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\MB1009SH1 25X.047 | |
| | SB1009SH1 25X | 10:00:59 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\SB1009SH1 25X.051 | |
| | 10-077-01 25X | 10:03:50 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01 25X.052 | |
| | 10-077-01D 25X | 10:06:41 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01D 25X.053 | |
| | 10-077-01L 125X | 10:09:33 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01L 125X.054 | |
| | 10-077-01MS 25X | 10:12:25 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01MS 25X.055 | |
| | 10-077-01MSD 25X | 10:15:18 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01MSD 25X.056 | |
| | 10-077-01PS 25X | 10:18:11 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-01PS 25X.057 | |
| | QC Std 6 | 10:21:03 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.058 | |
| | QC Std 8 | 10:23:55 Thu 10-O | QC Std #8 | C:\NexION Data\DataSet\X191010A\QC Std 8.059 | |
| | 10-077-02 25X | 10:32:10 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-02 25X.060 | |
| | 10-077-03 25X | 10:35:03 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-03 25X.061 | |
| | 10-077-04 25X | 10:37:54 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-04 25X.062 | |
| | 10-077-05 25X | 10:40:45 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-05 25X.063 | |
| | 10-077-06 25X | 10:43:37 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-06 25X.064 | |
| | 10-077-07 25X | 10:46:28 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-07 25X.065 | |
| | 10-077-08 25X | 10:49:19 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-08 25X.066 | |
| | 10-077-09 25X | 10:52:09 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-077-09 25X.067 | |
| | QC Std 6 | 10:55:00 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.068 | |
| | QC Std 6 | 10:58:38 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\QC Std 6.069 | |
| | QC Std 8 | 11:01:31 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\QC Std 8.070 | |
| | 10-112-01 25X | 11:08:45 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-01 25X.071 | |
| | 10-112-02 25X | 11:11:37 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-02 25X.072 | |
| | 10-112-03 25X | 11:14:29 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-03 25X.073 | |
| | 10-112-04 25X | 11:17:20 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-04 25X.074 | |
| | 10-112-05 25X | 11:20:12 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-05 25X.075 | |
| | 10-112-06 25X | 11:30:27 Thu 10-O | Sample | C:\NexION Data\DataSet\X191010A\10-112-06 25X.076 | |
| | QC Std 6 | 11:33:19 Thu 10-O | QC Std #6 | C:\NexION Data\DataSet\X191010A\QC Std 6.077 | |
| | QC Std 8 | 11:36:11 Thu 10-O | QC Std #8 | C:\NexION Data\DataSet\X191010A\QC Std 8.078 | |

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/10/2019 7:26:14 AM
End Time: 10/10/2019 7:26:45 AM

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Thursday, October 10, 2019 07:38:12
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191010A\Daily Performance Check.006
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 5709.3 | 5709.342 | 206.022 | 3.6 | Standard |
| | Mg | 24.0 | 42046.7 | 42046.667 | 1698.261 | 4.0 | Standard |
| | In | 114.9 | 48162.3 | 48162.339 | 904.590 | 1.9 | Standard |
| | U | 238.1 | 54475.8 | 54475.807 | 418.106 | 0.8 | Standard |
| ⌈ | CeO | 155.9 | 996.3 | 0.023 | 0.001 | 2.6 | Standard |
| \| > | Ce | 139.9 | 42937.0 | 42937.041 | 666.337 | 1.6 | Standard |
| ⌊ | Ce++ | 70.0 | 516.5 | 0.012 | 0.001 | 6.4 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 1.00 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 1.00 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/10/2019 7:38:12 AM
End Time: 10/10/2019 7:40:31 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5709.34
Obtained Intensity (Mg 23.985): 42046.67
Obtained Intensity (In 114.904): 48162.34
Obtained Intensity (U 238.05): 54475.81
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=996.30 / 42937.04)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=516.48 / 42937.04)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/10/2019 7:38:12 AM

Daily Performance Check
    Optimization Settings:
        Method: Daily Performance.mth.
        Intensity Criterion: Be 9.0122 > 2000
        Intensity Criterion: Mg 23.985 > 15000
        Intensity Criterion: In 114.904 > 40000
        Intensity Criterion: U 238.05 > 30000
        Intensity Criterion: Bkgd 220 <= 1
        Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
        Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

    Optimization Results:
    Initial Try
        Obtained Intensity (Be 9.0122): 5709.34
        Obtained Intensity (Mg 23.985): 42046.67
        Obtained Intensity (In 114.904): 48162.34
        Obtained Intensity (U 238.05): 54475.81
        Obtained Intensity (Bkgd 220): 0.00
        Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=996.30 / 42937.04)
        Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=516.48 / 42937.04)
[Passed]  Optimum value(s): N/A

End Time: 10/10/2019 7:40:31 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexION Data\MassCal\Default.tun
Acq. Date/Time: 17:28:21 Wed 09-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 7.025 | 1208 | 2081 | 0.710 | |
| Mg | 23.985 | 23.975 | 4615 | 2084 | 0.691 | |
| In | 114.904 | 114.925 | 22786 | 2084 | 0.693 | |
| U | 238.050 | 238.075 | 47388 | 2080 | 0.704 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ag | 106.905 | Linear Thru Zero | 0.03 | 0.00 | 0.999506 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Quantitative Analysis - Summary Report

**Sample ID: Blank**
Sample Date/Time: Thursday, October 10, 2019 09:06:39
Report Date/Time: Thursday, October 10, 2019 09:52:24
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 121740.5 | 3.0 | | | | ug/L | | Standard |
| | Y | 89 | 203747.1 | 2.2 | | | | ug/L | | Standard |
| > | Rh | 103 | 185387.1 | 2.8 | | | | ug/L | | Standard |
| | Ag | 107 | 576.3 | 5.5 | | | | ug/L | | Standard |
| | In | 115 | 412121.3 | 1.2 | | | | ug/L | | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Thursday, October 10, 2019 09:08:41
Report Date/Time: Thursday, October 10, 2019 09:52:26
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 132368.9 | 1.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 225698.3 | 1.8 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 204059.3 | 1.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 3316.4 | 3.7 | **1.0046** | 0.049 | 4.9 | ug/L | 576 | Standard |
| | In | 115 | 444778.5 | 0.7 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Thursday, October 10, 2019 09:10:44
Report Date/Time: Thursday, October 10, 2019 09:52:28
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 131370.7 | 1.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 219035.3 | 1.4 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 198353.5 | 1.7 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 11098.6 | 1.8 | **4.0371** | 0.063 | 1.6 | ug/L | 576 | Standard |
| | In | 115 | 438997.7 | 0.2 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 4

Sample Date/Time: Thursday, October 10, 2019 09:12:48
Report Date/Time: Thursday, October 10, 2019 09:52:31
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 133074.7 | 1.7 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 221510.1 | 1.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 191753.5 | 1.1 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 26966.8 | 1.7 | **10.4798** | 0.137 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 434070.1 | 0.7 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Thursday, October 10, 2019 09:14:50
Report Date/Time: Thursday, October 10, 2019 09:52:33
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 124248.3 | 0.7 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 204828.5 | 1.5 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 179278.6 | 0.2 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 97116.2 | 2.8 | 39.5223 | 1.097 | 2.8 | ug/L | 576 | Standard |
| | In | 115 | 410893.2 | 1.1 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Thursday, October 10, 2019 09:18:55
Report Date/Time: Thursday, October 10, 2019 09:52:37
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 122896.1 | 1.7 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 203870.6 | 2.3 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 184427.1 | 3.5 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 545177.5 | 1.2 | **101.4148** | 2.634 | 2.6 | ug/L | 576 | Standard |
| | In | 115 | 407954.8 | 1.6 | | | | ug/L | 412121 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**
Sample Date/Time: Thursday, October 10, 2019 09:21:48
Report Date/Time: Thursday, October 10, 2019 09:52:39
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 129340.2 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 219884.5 | 2.2 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 199799.2 | 4.3 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 289862.1 | 2.9 | **49.7092** | 0.728 | 1.5 | ug/L | 576 | Standard |
| | In | 115 | 418393.3 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 107.774 |
| | 107 | Ag | 99.418 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**
Sample Date/Time: Thursday, October 10, 2019 09:24:40
Report Date/Time: Thursday, October 10, 2019 09:52:48
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 123403.4 | 1.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 211377.7 | 3.2 | | | | ug/L | 203747 | Standard |
| [> | Rh | 103 | 187166.0 | 1.6 | | | | ug/L | 185387 | Standard |
| [ | Ag | 107 | 1015.4 | 9.4 | **0.0794** | 0.015 | 18.7 | ug/L | 576 | Standard |
| | In | 115 | 401895.1 | 0.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 100.960 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 4

Sample Date/Time: Thursday, October 10, 2019 09:26:42
Report Date/Time: Thursday, October 10, 2019 09:52:51
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 137734.2 | 0.8 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 233557.6 | 2.6 | | | | ug/L | 203747 | Standard |
| ⌈> | **Rh** | 103 | 211532.6 | 1.7 | | | | ug/L | 185387 | Standard |
| ⌊ | **Ag** | 107 | 3785.2 | 1.6 | **0.5077** | 0.020 | 3.8 | ug/L | 576 | Standard |
| | **In** | 115 | 441431.1 | 1.8 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 114.103 |
| ⌊ | 107Ag | 101.538 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 10, 2019 09:29:35
Report Date/Time: Thursday, October 10, 2019 09:52:54
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 129043.6 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 218510.8 | 0.4 | | | | ug/L | 203747 | Standard |
| [> | Rh | 103 | 191655.8 | 2.3 | | | | ug/L | 185387 | Standard |
| [ | Ag | 107 | 216708.0 | 2.5 | **38.7084** | 0.869 | 2.2 | ug/L | 576 | Standard |
| | In | 115 | 412333.5 | 0.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 103.381 |
| [ | 107Ag | 96.771 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Thursday, October 10, 2019 09:32:27
Report Date/Time: Thursday, October 10, 2019 09:52:56
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 127770.3 | 1.5 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 214544.6 | 1.7 | | | | ug/L | 203747 | Standard |
| > | **Rh** | 103 | 189446.0 | 2.3 | | | | ug/L | 185387 | Standard |
| | **Ag** | 107 | 1022.7 | 4.5 | **0.0786** | 0.008 | 10.8 | ug/L | 576 | Standard |
| | **In** | 115 | 412829.5 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 102.189 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Thursday, October 10, 2019 09:34:29
Report Date/Time: Thursday, October 10, 2019 09:52:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 112938.1 | 1.4 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 194921.3 | 1.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 162001.6 | 1.8 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 812.0 | 3.4 | 0.0653 | 0.003 | 4.7 | ug/L | 576 | Standard |
| | In | 115 | 371840.3 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 87.386 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: ICSAB**

Sample Date/Time: Thursday, October 10, 2019 09:40:12
Report Date/Time: Thursday, October 10, 2019 09:53:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 139707.5 | 0.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 222708.2 | 1.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 199052.2 | 2.1 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 225212.2 | 3.2 | **38.7273** | 0.905 | 2.3 | ug/L | 576 | Standard |
| | In | 115 | 437480.8 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 107.371 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1009SH1 25X**

Sample Date/Time: Thursday, October 10, 2019 09:47:29
Report Date/Time: Thursday, October 10, 2019 09:53:02
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 138140.7 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 215819.0 | 0.6 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 170062.9 | 2.1 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 898.0 | 3.8 | **0.0745** | 0.003 | 4.5 | ug/L | 576 | Standard |
| | In | 115 | 513542.7 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 91.734 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1009SH1 25X**

Sample Date/Time: Thursday, October 10, 2019 10:00:59
Report Date/Time: Thursday, October 10, 2019 10:01:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 144257.1 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 225058.0 | 0.8 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 179834.7 | 1.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 87048.4 | 1.1 | 16.5083 | 0.101 | 0.6 | ug/L | 576 | Standard |
| | In | 115 | 488631.9 | 0.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 97.005 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01 25X

Sample Date/Time: Thursday, October 10, 2019 10:03:50
Report Date/Time: Thursday, October 10, 2019 10:04:20
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 136162.9 | 1.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 238657.4 | 0.8 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 166443.7 | 1.1 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 17823.8 | 2.4 | **3.5691** | 0.097 | 2.7 | ug/L | 576 | Standard |
| | In | 115 | 483300.1 | 0.2 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 89.782 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01D 25X**

Sample Date/Time: Thursday, October 10, 2019 10:06:41
Report Date/Time: Thursday, October 10, 2019 10:07:11
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 146254.0 | 1.8 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 255367.9 | 0.3 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 176185.6 | 1.3 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 21157.7 | 3.9 | **4.0150** | 0.145 | 3.6 | ug/L | 576 | Standard |
| | In | 115 | 532082.5 | 1.0 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 95.037 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01L 125X**

Sample Date/Time: Thursday, October 10, 2019 10:09:33
Report Date/Time: Thursday, October 10, 2019 10:10:04
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 141089.4 | 1.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 229357.3 | 1.2 | | | | ug/L | 203747 | Standard |
| [> | Rh | 103 | 190728.0 | 1.6 | | | | ug/L | 185387 | Standard |
| [ | Ag | 107 | 4475.7 | 1.8 | **0.6988** | 0.015 | 2.2 | ug/L | 576 | Standard |
| | In | 115 | 460286.0 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| [> | 103 | Rh | | 102.881 |
| [ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01MS 25X

Sample Date/Time: Thursday, October 10, 2019 10:12:25
Report Date/Time: Thursday, October 10, 2019 10:12:56
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 147334.9 | 0.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 255580.4 | 1.7 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 179045.0 | 0.4 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 108270.8 | 0.9 | **20.6488** | 0.088 | 0.4 | ug/L | 576 | Standard |
| | In | 115 | 530460.7 | 1.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 96.579 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01MSD 25X**

Sample Date/Time: Thursday, October 10, 2019 10:15:18
Report Date/Time: Thursday, October 10, 2019 10:15:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 143279.6 | 0.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 250024.5 | 1.1 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 172888.6 | 1.2 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 99712.9 | 2.6 | **19.6882** | 0.373 | 1.9 | ug/L | 576 | Standard |
| | In | 115 | 502843.6 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 93.258 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01PS 25X

Sample Date/Time: Thursday, October 10, 2019 10:18:11
Report Date/Time: Thursday, October 10, 2019 10:18:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 138205.1 | 4.1 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 236705.7 | 3.3 | | | | ug/L | 203747 | Standard |
| ⌈> | **Rh** | 103 | 167590.7 | 2.5 | | | | ug/L | 185387 | Standard |
| ⌊ | **Ag** | 107 | 181179.2 | 5.8 | **36.9794** | 1.245 | 3.4 | ug/L | 576 | Standard |
| | **In** | 115 | 490424.1 | 1.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 90.400 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Thursday, October 10, 2019 10:21:03
Report Date/Time: Thursday, October 10, 2019 10:21:34
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 150132.2 | 1.4 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 259662.3 | 2.1 | | | | ug/L | 203747 | Standard |
| > | **Rh** | 103 | 234089.0 | 2.8 | | | | ug/L | 185387 | Standard |
| | **Ag** | 107 | 276941.6 | 1.3 | **40.5122** | 0.728 | 1.8 | ug/L | 576 | Standard |
| | **In** | 115 | 456905.0 | 1.1 | | | | ug/L | 412121 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 126.270 |
| | 107Ag | 101.281 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 10, 2019 10:23:55
Report Date/Time: Thursday, October 10, 2019 10:24:26
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 149182.4 | 2.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 249993.6 | 2.9 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 230341.1 | 2.2 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 1593.1 | 6.5 | 0.1308 | 0.017 | 13.4 | ug/L | 576 | Standard |
| | In | 115 | 456285.2 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 124.249 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-02 25X

Sample Date/Time: Thursday, October 10, 2019 10:32:10
Report Date/Time: Thursday, October 10, 2019 10:32:41
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 163667.6 | 1.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 312928.6 | 1.8 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 201196.2 | 1.8 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 10889.8 | 3.3 | **1.7508** | 0.037 | 2.1 | ug/L | 576 | Standard |
| | In | 115 | 570509.6 | 1.3 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 108.528 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-03 25X**

Sample Date/Time: Thursday, October 10, 2019 10:35:03
Report Date/Time: Thursday, October 10, 2019 10:35:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 159221.2 | 1.5 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 269344.3 | 1.1 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 200803.6 | 1.4 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 37114.5 | 2.2 | **6.2385** | 0.185 | 3.0 | ug/L | 576 | Standard |
| | In | 115 | 574370.8 | 2.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 108.316 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-04 25X**

Sample Date/Time: Thursday, October 10, 2019 10:37:54
Report Date/Time: Thursday, October 10, 2019 10:38:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 161569.3 | 1.0 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 258320.6 | 1.4 | | | | ug/L | 203747 | Standard |
| ⌈> | **Rh** | 103 | 203787.8 | 3.1 | | | | ug/L | 185387 | Standard |
| ⌊ | **Ag** | 107 | 33390.3 | 2.7 | **5.5177** | 0.055 | 1.0 | ug/L | 576 | Standard |
| | **In** | 115 | 558564.8 | 0.4 | | | | ug/L | 412121 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 109.926 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-05 25X**

Sample Date/Time: Thursday, October 10, 2019 10:40:45
Report Date/Time: Thursday, October 10, 2019 10:41:16
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 158259.2 | 1.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 266178.3 | 1.7 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 194341.4 | 2.2 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 39329.8 | 2.6 | **6.8410** | 0.205 | 3.0 | ug/L | 576 | Standard |
| | In | 115 | 577080.1 | 0.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 104.830 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-06 25X

Sample Date/Time: Thursday, October 10, 2019 10:43:37
Report Date/Time: Thursday, October 10, 2019 10:44:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 175787.9 | 0.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 316012.6 | 1.1 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 210981.8 | 2.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 15767.7 | 3.2 | **2.4584** | 0.054 | 2.2 | ug/L | 576 | Standard |
| | In | 115 | 601688.0 | 1.1 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 113.806 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-07 25X

Sample Date/Time: Thursday, October 10, 2019 10:46:28
Report Date/Time: Thursday, October 10, 2019 10:46:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 172805.2 | 0.1 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 312392.8 | 0.7 | | | | ug/L | 203747 | Standard |
| ⌈> | **Rh** | 103 | 205133.0 | 0.5 | | | | ug/L | 185387 | Standard |
| ⌊ | **Ag** | 107 | 12235.6 | 0.5 | **1.9406** | 0.004 | 0.2 | ug/L | 576 | Standard |
| | **In** | 115 | 605043.8 | 1.2 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 110.651 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-08 25X**

Sample Date/Time: Thursday, October 10, 2019 10:49:19
Report Date/Time: Thursday, October 10, 2019 10:49:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 170868.5 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 328681.9 | 1.7 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 202689.9 | 2.2 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 10865.5 | 3.2 | **1.7330** | 0.022 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 596689.8 | 1.0 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 109.333 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-09 25X**

Sample Date/Time: Thursday, October 10, 2019 10:52:09
Report Date/Time: Thursday, October 10, 2019 10:52:39
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 163368.9 | 1.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 320046.5 | 0.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 196687.6 | 1.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 8310.1 | 4.8 | **1.3436** | 0.071 | 5.3 | ug/L | 576 | Standard |
| | In | 115 | 574506.2 | 1.5 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 106.096 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 10, 2019 10:58:38
Report Date/Time: Thursday, October 10, 2019 10:59:09
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 158016.1 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 264593.3 | 0.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 237403.6 | 1.4 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 280028.5 | 1.2 | **40.3823** | 0.532 | 1.3 | ug/L | 576 | Standard |
| | In | 115 | 477719.8 | 0.4 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 128.058 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 10, 2019 11:01:31
Report Date/Time: Thursday, October 10, 2019 11:02:02
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 145242.0 | 0.9 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 237135.7 | 0.9 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 217019.7 | 0.6 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 951.4 | 3.5 | **0.0437** | 0.005 | 10.3 | ug/L | 576 | Standard |
| | In | 115 | 430733.2 | 0.9 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 117.063 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-01 25X**

Sample Date/Time: Thursday, October 10, 2019 11:08:45
Report Date/Time: Thursday, October 10, 2019 11:09:16
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 161795.8 | 0.7 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 303887.4 | 2.5 | | | | ug/L | 203747 | Standard |
| > | **Rh** | 103 | 195146.6 | 2.1 | | | | ug/L | 185387 | Standard |
| | **Ag** | 107 | 7579.7 | 1.2 | **1.2266** | 0.012 | 1.0 | ug/L | 576 | Standard |
| | **In** | 115 | 549034.2 | 1.2 | | | | ug/L | 412121 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 105.264 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-02 25X

Sample Date/Time: Thursday, October 10, 2019 11:11:37
Report Date/Time: Thursday, October 10, 2019 11:12:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 159517.6 | 2.2 | | | | ug/L | 121741 | Standard |
| | **Y** | 89 | 301438.0 | 1.6 | | | | ug/L | 203747 | Standard |
| ⌈> | **Rh** | 103 | 191870.8 | 2.6 | | | | ug/L | 185387 | Standard |
| ⌊ | **Ag** | 107 | 5287.3 | 4.5 | **0.8389** | 0.024 | 2.8 | ug/L | 576 | Standard |
| | **In** | 115 | 538353.4 | 1.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 103.497 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-03 25X**

Sample Date/Time: Thursday, October 10, 2019 11:14:29
Report Date/Time: Thursday, October 10, 2019 11:15:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 165545.4 | 1.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 314152.3 | 1.3 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 197814.6 | 2.9 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 1240.1 | 2.9 | **0.1086** | 0.008 | 7.5 | ug/L | 576 | Standard |
| | In | 115 | 577438.6 | 1.0 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 106.704 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-04 25X**

Sample Date/Time: Thursday, October 10, 2019 11:17:20
Report Date/Time: Thursday, October 10, 2019 11:17:51
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 160554.6 | 1.1 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 293241.6 | 1.0 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 191596.1 | 2.4 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 10946.5 | 2.4 | 1.8545 | 0.036 | 1.9 | ug/L | 576 | Standard |
| | In | 115 | 554102.1 | 0.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 103.349 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-05 25X**

Sample Date/Time: Thursday, October 10, 2019 11:20:12
Report Date/Time: Thursday, October 10, 2019 11:20:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 167960.5 | 2.0 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 303940.4 | 1.5 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 203358.0 | 1.2 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 10097.2 | 3.1 | **1.5973** | 0.032 | 2.0 | ug/L | 576 | Standard |
| | In | 115 | 569200.6 | 0.8 | | | | ug/L | 412121 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 109.694 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-06 25X**
Sample Date/Time: Thursday, October 10, 2019 11:30:27
Report Date/Time: Thursday, October 10, 2019 11:30:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191010A.sam
Method File: C:\NexION Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 165552.8 | 0.6 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 303196.1 | 1.9 | | | | ug/L | 203747 | Standard |
| ⌈> | Rh | 103 | 201347.6 | 1.8 | | | | ug/L | 185387 | Standard |
| ⌊ | Ag | 107 | 9211.3 | 3.9 | **1.4632** | 0.034 | 2.3 | ug/L | 576 | Standard |
| | In | 115 | 562587.5 | 1.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 108.609 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Thursday, October 10, 2019 11:33:19
Report Date/Time: Thursday, October 10, 2019 11:33:50
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 154848.1 | 1.3 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 256922.4 | 1.5 | | | | ug/L | 203747 | Standard |
| > | Rh | 103 | 234762.3 | 2.3 | | | | ug/L | 185387 | Standard |
| | Ag | 107 | 274037.1 | 3.2 | **39.9696** | 1.413 | 3.5 | ug/L | 576 | Standard |
| | In | 115 | 449947.6 | 0.6 | | | | ug/L | 412121 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 126.634 |
| | 107Ag | 99.924 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Thursday, October 10, 2019 11:36:11
Report Date/Time: Thursday, October 10, 2019 11:36:42
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191010A.sam
Method File: C:\NexION\Data\Method\X191010B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 147977.8 | 0.4 | | | | ug/L | 121741 | Standard |
| | Y | 89 | 252657.7 | 0.6 | | | | ug/L | 203747 | Standard |
| [> | Rh | 103 | 230466.6 | 1.1 | | | | ug/L | 185387 | Standard |
| [ | Ag | 107 | 978.0 | 3.5 | 0.0389 | 0.004 | 10.3 | ug/L | 576 | Standard |
| | In | 115 | 437504.5 | 1.7 | | | | ug/L | 412121 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 124.316 |
| [ | 107Ag | | |
| | 115In | | |

# Dataset Report

10-10-19
KDM

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexIONData\DataSet\X191009B\
Report Date/Time: Thursday, October 10, 2019 11:43:10

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| | Sample | 12:49:11 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\Sample.001 | |
| | Sample | 12:53:16 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\Sample.002 | |
| | Blank | 12:58:52 Wed 09-( | Blank | C:\NexIONData\DataSet\X191009B\Blank.003 | |
| | Blank | 13:02:08 Wed 09-( | Blank | C:\NexIONData\DataSet\X191009B\Blank.004 | |
| | Standard 2 | 13:05:23 Wed 09-( | Standard #2 | C:\NexIONData\DataSet\X191009B\Standard 2.005 | |
| | Standard 3 | 13:08:38 Wed 09-( | Standard #3 | C:\NexIONData\DataSet\X191009B\Standard 3.006 | |
| | Standard 4 | 13:11:53 Wed 09-( | Standard #4 | C:\NexIONData\DataSet\X191009B\Standard 4.007 | |
| | Standard 5 | 13:15:08 Wed 09-( | Standard #5 | C:\NexIONData\DataSet\X191009B\Standard 5.008 | |
| | Standard 6 | 13:18:24 Wed 09-( | Standard #6 | C:\NexIONData\DataSet\X191009B\Standard 6.009 | |
| | Standard 7 | 13:21:39 Wed 09-( | Standard #7 | C:\NexIONData\DataSet\X191009B\Standard 7.010 | |
| | QC Std 1 | 13:33:32 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\QC Std 1.012 | |
| | QC Std 2 | 13:37:36 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\QC Std 2.013 | |
| | QC Std 3 | 13:41:40 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\QC Std 3.014 | |
| | QC Std 4 | 13:45:45 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\QC Std 4.015 | |
| | QC Std 6 | 13:49:49 Wed 09-( | QC Std #6 | C:\NexIONData\DataSet\X191009B\QC Std 6.016 | |
| | QC Std 8 | 13:53:54 Wed 09-( | QC Std #8 | C:\NexIONData\DataSet\X191009B\QC Std 8.017 | |
| | ICSA | 13:57:28 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\ICSA.018 | |
| | ICSAB | 14:01:32 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\ICSAB.019 | |
| | MB1009SM1 5X | 14:05:42 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\MB1009SM1 5X.020 | |
| | SB1009SM1 50X | 14:09:46 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\SB1009SM1 50X.021 | |
| | 10-077-01 10X | 14:13:49 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01 10X.022 | |
| | 10-077-01D 10X | 14:17:53 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01D 10X.023 | |
| | 10-077-01L 50X | 14:21:57 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01L 50X.024 | |
| | 10-077-01MS 50X | 14:26:01 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01MS 50X.025 | |
| | 10-077-01MSD 50X | 14:30:05 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01MSD 50X.026 | |
| | 10-077-01PS 10X | 14:34:09 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01PS 10X.027 | |
| | QC Std 6 | 14:38:13 Wed 09-( | QC Std #6 | C:\NexIONData\DataSet\X191009B\QC Std 6.028 | |
| | QC Std 8 | 14:42:18 Wed 09-( | QC Std #8 | C:\NexIONData\DataSet\X191009B\QC Std 8.029 | |
| | 10-077-01 50X | 14:47:12 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01 50X.030 | |
| | 10-077-01D 50X | 14:51:16 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01D 50X.031 | |
| | 10-077-01L 250X | 14:55:19 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01L 250X.032 | |
| | 10-077-01PS 50X | 14:59:22 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-01PS 50X.033 | |
| | 10-077-02 50X | 15:06:00 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-02 50X.034 | |
| | 10-077-03 50X | 15:10:03 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-03 50X.035 | |
| | 10-077-04 50X | 15:14:06 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-04 50X.036 | |
| | 10-077-05 50X | 15:18:08 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-05 50X.037 | |
| | 10-077-06 50X | 15:22:12 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-06 50X.038 | |
| | 10-077-07 50X | 15:26:16 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-07 50X.039 | |
| | QC Std 6 | 15:30:20 Wed 09-( | QC Std #6 | C:\NexIONData\DataSet\X191009B\QC Std 6.040 | |
| | QC Std 8 | 15:34:24 Wed 09-( | QC Std #8 | C:\NexIONData\DataSet\X191009B\QC Std 8.041 | |
| | 10-077-08 50X | 15:38:25 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-08 50X.042 | |
| | 10-077-09 50X | 15:42:28 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-09 50X.043 | |
| | 10-112-01 50X | 15:46:32 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-112-01 50X.044 | |
| | 10-112-02 50X | 15:50:35 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-112-02 50X.045 | |
| | 10-112-03 50X | 15:54:39 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-112-03 50X.046 | |
| | 10-112-04 50X | 15:58:42 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-112-04 50X.047 | |
| | 10-112-05 50X | 16:02:45 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-112-05 50X.048 | |
| | 10-112-06 50X | 16:06:48 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-112-06 50X.049 | |
| | 10-077-02 10X | 16:10:51 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-02 10X.050 | |
| | 10-077-03 20X | 16:14:53 Wed 09-( | Sample | C:\NexIONData\DataSet\X191009B\10-077-03 20X.051 | |

| | | |
|---|---|---|
| QC Std 6 | 16:18:56 Wed 09-(QC Std #6 | C:\NexION Data\DataSet\X191009B\QC Std 6.052 |
| QC Std 8 | 16:23:01 Wed 09-(QC Std #8 | C:\NexION Data\DataSet\X191009B\QC Std 8.053 |
| 10-077-05 20X | 16:28:16 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-05 20X.054 |
| 10-077-06 20X | 16:32:19 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-06 20X.055 |
| 10-077-07 10X | 16:36:24 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-07 10X.056 |
| 10-077-08 20X | 16:40:28 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-08 20X.057 |
| 10-077-09 10X | 16:44:32 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-09 10X.058 |
| 10-112-01 10X | 16:48:35 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-01 10X.059 |
| 10-112-02 10X | 16:52:38 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-02 10X.060 |
| 10-112-03 10X | 16:56:42 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-03 10X.061 |
| 10-112-04 10X | 17:00:45 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-04 10X.062 |
| 10-112-05 10X | 17:04:49 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-05 10X.063 |
| QC Std 6 | 17:08:53 Wed 09-(QC Std #6 | C:\NexION Data\DataSet\X191009B\QC Std 6.064 |
| QC Std 8 | 17:12:57 Wed 09-(QC Std #8 | C:\NexION Data\DataSet\X191009B\QC Std 8.065 |
| 10-112-06 10X | 17:16:11 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-112-06 10X.066 |
| 10-077-08 10X | 17:20:14 Wed 09-(Sample | C:\NexION Data\DataSet\X191009B\10-077-08 10X.067 |
| QC Std 6 | 17:24:17 Wed 09-(QC Std #6 | C:\NexION Data\DataSet\X191009B\QC Std 6.068 |
| QC Std 8 | 17:28:21 Wed 09-(QC Std #8 | C:\NexION Data\DataSet\X191009B\QC Std 8.069 |

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Wednesday, October 09, 2019 09:42:24
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191009A\Daily Performance Check.006
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 5895.3 | 5895.284 | 184.457 | 3.1 | Standard |
| | Mg | 24.0 | 43109.8 | 43109.780 | 1883.817 | 4.4 | Standard |
| | In | 114.9 | 51722.5 | 51722.489 | 952.661 | 1.8 | Standard |
| | U | 238.1 | 58392.2 | 58392.169 | 524.945 | 0.9 | Standard |
| ⌈ | CeO | 155.9 | 1030.6 | 0.024 | 0.001 | 2.5 | Standard |
| \| > | Ce | 139.9 | 43803.1 | 43803.076 | 924.870 | 2.1 | Standard |
| ⌊ | Ce++ | 70.0 | 173.1 | 0.004 | 0.000 | 5.2 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 0.99 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 0.99 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/9/2019 9:42:23 AM
End Time: 10/9/2019 9:44:43 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5895.28
Obtained Intensity (Mg 23.985): 43109.78
Obtained Intensity (In 114.904): 51722.49
Obtained Intensity (U 238.05): 58392.17
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.024 (=1030.64 / 43803.08)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=173.07 / 43803.08)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/9/2019 9:42:23 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 5895.28
Obtained Intensity (Mg 23.985): 43109.78
Obtained Intensity (In 114.904): 51722.49
Obtained Intensity (U 238.05): 58392.17
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.024 (=1030.64 / 43803.08)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=173.07 / 43803.08)

[Passed] Optimum value(s): N/A

End Time: 10/9/2019 9:44:43 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexIONData\MassCal\Default.tun
Acq. Date/Time: 09:49:11 Wed 09-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 6.975 | 1207 | 2081 | 0.706 | |
| Mg | 23.985 | 24.025 | 4617 | 2084 | 0.698 | |
| In | 114.904 | 114.925 | 22782 | 2084 | 0.694 | |
| U | 238.050 | 238.025 | 47384 | 2080 | 0.708 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Se | 76.920 | Linear Thru Zero | 0.00 | 0.00 | 0.999979 |
| Se | 77.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999957 |
| Br | 78.918 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Se | 81.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999909 |
| Kr | 82.914 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ba | 134.906 | Linear Thru Zero | 0.01 | 0.00 | 0.999996 |
| Ba | 136.905 | Linear Thru Zero | 0.01 | 0.00 | 0.999996 |
| Tb | 158.925 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ho | 164.930 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Pb | 207.977 | Linear Thru Zero | 0.09 | 0.00 | 0.999987 |
| Ge-1 | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| As-2 | 74.922 | Linear Thru Zero | 0.01 | 0.00 | 0.999893 |
| Y-1 | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Quantitative Analysis - Summary Report

## Sample ID: Blank

Sample Date/Time: Wednesday, October 09, 2019 13:02:08
Report Date/Time: Thursday, October 10, 2019 11:39:39
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149430.4 | 2.4 | | | | ug/L | | Standard |
| | Se | 77 | 14.7 | 14.2 | | | | ug/L | | Standard |
| | Se | 78 | 988.7 | 2.9 | | | | ug/L | | Standard |
| | Br | 79 | 66.7 | 7.5 | | | | ug/L | | Standard |
| | Se | 82 | 29.0 | 10.3 | | | | ug/L | | Standard |
| | Kr | 83 | 18.3 | 22.0 | | | | ug/L | | Standard |
| | Y | 89 | 281095.6 | 4.3 | | | | ug/L | | Standard |
| | Ba | 135 | 93.7 | 6.8 | | | | ug/L | | Standard |
| | Ba | 137 | 169.3 | 2.2 | | | | ug/L | | Standard |
| > | Tb | 159 | 490334.0 | 0.1 | | | | ug/L | | Standard |
| | Ho | 165 | 511924.9 | 1.3 | | | | ug/L | | Standard |
| | Pb | 208 | 2723.8 | 0.3 | | | | ug/L | | Standard |
| > | Ge-1 | 72 | 7806.1 | 4.2 | | | | ug/L | | KED |
| | As-2 | 75 | 1.3 | 43.3 | | | | ug/L | | KED |
| | Y-1 | 89 | 12626.6 | 2.5 | | | | ug/L | | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Wednesday, October 09, 2019 13:05:23
Report Date/Time: Thursday, October 10, 2019 11:39:41
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150979.7 | 0.7 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 29.3 | 12.0 | 0.5000 | 0.128 | 25.6 | ug/L | 15 | Standard |
| | Se | 78 | 1045.0 | 4.4 | | | | ug/L | 989 | Standard |
| | Br | 79 | 69.0 | 8.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 79.3 | 7.3 | 0.5000 | 0.055 | 11.0 | ug/L | 29 | Standard |
| | Kr | 83 | 16.7 | 3.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 287310.5 | 6.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 1392.1 | 1.0 | 0.5000 | 0.007 | 1.4 | ug/L | 94 | Standard |
| | Ba | 137 | 2287.5 | 2.8 | 0.5000 | 0.014 | 2.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 484317.6 | 0.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 507203.4 | 0.5 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 23401.3 | 1.4 | 0.5000 | 0.010 | 1.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7671.7 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 20.3 | 28.0 | 0.5000 | 0.154 | 30.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 12582.5 | 1.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 3

Sample Date/Time: Wednesday, October 09, 2019 13:08:38
Report Date/Time: Thursday, October 10, 2019 11:39:44
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149989.0 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 89.7 | 13.4 | **2.0274** | 0.339 | 16.7 | ug/L | 15 | Standard |
| | Se | 78 | 1234.7 | 2.0 | **2.0000** | 0.198 | 9.9 | ug/L | 989 | Standard |
| | Br | 79 | 64.7 | 6.2 | | | | ug/L | 67 | Standard |
| | Se | 82 | 252.7 | 4.3 | **2.0132** | 0.120 | 6.0 | ug/L | 29 | Standard |
| | Kr | 83 | 19.0 | 18.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 289875.7 | 2.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 5255.3 | 0.6 | **1.9995** | 0.012 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 8845.7 | 0.8 | **2.0030** | 0.029 | 1.5 | ug/L | 169 | Standard |
| > | Tb | 159 | 483030.3 | 0.7 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 499183.1 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 89566.1 | 0.4 | **2.0058** | 0.018 | 0.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7685.1 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 105.3 | 14.4 | **2.0320** | 0.329 | 16.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 12567.2 | 3.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 4

Sample Date/Time: Wednesday, October 09, 2019 13:11:53
Report Date/Time: Thursday, October 10, 2019 11:39:46
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158661.6 | 0.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 221.0 | 5.9 | **5.0349** | 0.316 | 6.3 | ug/L | 15 | Standard |
| | Se | 78 | 1706.4 | 4.8 | **5.0168** | 0.659 | 13.1 | ug/L | 989 | Standard |
| | Br | 79 | 71.3 | 11.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 565.3 | 5.0 | **4.9289** | 0.259 | 5.3 | ug/L | 29 | Standard |
| | Kr | 83 | 20.3 | 33.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 292822.0 | 3.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 13484.0 | 2.9 | **5.0087** | 0.126 | 2.5 | ug/L | 94 | Standard |
| | Ba | 137 | 22653.6 | 0.4 | **5.0092** | 0.061 | 1.2 | ug/L | 169 | Standard |
| > | Tb | 159 | 494922.7 | 0.9 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 518967.3 | 0.1 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 231863.5 | 1.2 | **5.0230** | 0.088 | 1.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7825.8 | 2.2 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 241.3 | 2.3 | **4.9368** | 0.115 | 2.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 12892.8 | 4.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Wednesday, October 09, 2019 13:15:08
Report Date/Time: Thursday, October 10, 2019 11:39:49
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150402.5 | 2.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 753.4 | 3.4 | 19.9356 | 0.421 | 2.1 | ug/L | 15 | Standard |
| | Se | 78 | 3462.4 | 3.7 | 19.9917 | 0.791 | 4.0 | ug/L | 989 | Standard |
| | Br | 79 | 62.7 | 17.9 | | | | ug/L | 67 | Standard |
| | Se | 82 | 2157.5 | 4.4 | 20.0467 | 0.940 | 4.7 | ug/L | 29 | Standard |
| | Kr | 83 | 21.3 | 2.7 | | | | ug/L | 18 | Standard |
| | Y | 89 | 289488.8 | 0.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 52752.2 | 0.6 | 20.0428 | 0.152 | 0.8 | ug/L | 94 | Standard |
| | Ba | 137 | 87383.5 | 0.9 | 20.0244 | 0.046 | 0.2 | ug/L | 169 | Standard |
| > | Tb | 159 | 472264.5 | 0.8 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 493649.4 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 874380.9 | 0.8 | 20.0019 | 0.269 | 1.3 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7590.7 | 2.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 912.4 | 4.1 | 19.9518 | 0.491 | 2.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 12243.9 | 3.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 6

Sample Date/Time: Wednesday, October 09, 2019 13:18:24
Report Date/Time: Thursday, October 10, 2019 11:39:51
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 146100.7 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1479.7 | 2.0 | **40.1499** | 0.424 | 1.1 | ug/L | 15 | Standard |
| | Se | 78 | 6003.3 | 6.0 | **40.4073** | 2.504 | 6.2 | ug/L | 989 | Standard |
| | Br | 79 | 75.0 | 3.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4262.6 | 4.0 | **40.2155** | 1.190 | 3.0 | ug/L | 29 | Standard |
| | Kr | 83 | 23.7 | 19.1 | | | | ug/L | 18 | Standard |
| | Y | 89 | 278354.5 | 2.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 103262.9 | 0.4 | **39.9056** | 0.187 | 0.5 | ug/L | 94 | Standard |
| | Ba | 137 | 175311.1 | 0.3 | **40.1071** | 0.343 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 468794.1 | 0.9 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 487117.8 | 1.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1725346.0 | 0.8 | **39.9614** | 0.199 | 0.5 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7401.6 | 2.2 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1780.8 | 1.8 | **39.9951** | 0.425 | 1.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 12097.8 | 0.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 7

Sample Date/Time: Wednesday, October 09, 2019 13:21:39
Report Date/Time: Thursday, October 10, 2019 11:39:52
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 151934.1 | 1.5 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 3759.5 | 1.4 | **99.7720** | 0.132 | 0.1 | ug/L | 15 | Standard |
| | Se | 78 | 13818.7 | 4.6 | **99.8047** | 3.698 | 3.7 | ug/L | 989 | Standard |
| | Br | 79 | 75.0 | 8.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 10623.3 | 5.4 | **99.4353** | 4.182 | 4.2 | ug/L | 29 | Standard |
| | Kr | 83 | 21.7 | 20.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 290200.5 | 4.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 261051.6 | 0.6 | **100.0798** | 0.748 | 0.7 | ug/L | 94 | Standard |
| | Ba | 137 | 440540.2 | 0.2 | **100.0637** | 0.393 | 0.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 470938.0 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 494331.9 | 1.7 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 4276981.4 | 0.8 | **99.7784** | 1.165 | 1.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7298.2 | 2.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 4562.4 | 3.0 | **100.6472** | 1.596 | 1.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 12157.5 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 1

Sample Date/Time: Wednesday, October 09, 2019 13:33:32
Report Date/Time: Thursday, October 10, 2019 11:39:55
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164575.8 | 3.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 2063.1 | 4.0 | **50.3534** | 1.362 | 2.7 | ug/L | 15 | Standard |
| | Se | 78 | 8438.2 | 4.9 | **52.8472** | 1.675 | 3.2 | ug/L | 989 | Standard |
| | Br | 79 | 64.3 | 5.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 6087.3 | 2.4 | **52.4965** | 0.687 | 1.3 | ug/L | 29 | Standard |
| | Kr | 83 | 25.3 | 17.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 346495.1 | 4.0 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 144547.0 | 0.6 | **51.5131** | 0.598 | 1.2 | ug/L | 94 | Standard |
| | Ba | 137 | 242429.2 | 1.2 | **51.1824** | 0.169 | 0.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 506481.9 | 1.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 529029.7 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2383496.9 | 1.4 | **51.6830** | 1.351 | 2.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7981.6 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2511.6 | 3.2 | **50.6469** | 1.507 | 3.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 13549.4 | 2.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 110.135 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 103.293 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 102.247 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 2

Sample Date/Time: Wednesday, October 09, 2019 13:37:36
Report Date/Time: Thursday, October 10, 2019 11:40:05
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 156525.3 | 1.3 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 15.7 | 45.3 | 0.0081 | 0.185 | 2291.7 | ug/L | 15 | Standard |
| | Se | 78 | 1043.7 | 5.4 | 0.0609 | 0.411 | 674.4 | ug/L | 989 | Standard |
| | Br | 79 | 74.3 | 3.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 28.3 | 26.7 | -0.0191 | 0.065 | 341.5 | ug/L | 29 | Standard |
| | Kr | 83 | 26.0 | 6.7 | | | | ug/L | 18 | Standard |
| | Y | 89 | 310638.6 | 3.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 93.0 | 7.8 | 0.0009 | 0.002 | 291.8 | ug/L | 94 | Standard |
| | Ba | 137 | 158.3 | 1.8 | -0.0013 | 0.001 | 78.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 474989.6 | 1.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 496335.7 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2657.8 | 1.9 | 0.0005 | 0.002 | 359.3 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7569.3 | 3.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 3.3 | 17.3 | 0.0434 | 0.012 | 27.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 12636.9 | 2.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 104.748 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 96.871 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 96.967 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 09, 2019 13:41:40
Report Date/Time: Thursday, October 10, 2019 11:40:07
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 154779.7 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 89.7 | 6.5 | **1.9468** | 0.124 | 6.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 1327.1 | 3.0 | **2.3162** | 0.228 | 9.8 | ug/L | 989 | Standard |
| | **Br** | 79 | 65.3 | 14.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 248.7 | 3.3 | **2.0147** | 0.052 | 2.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 25.7 | 35.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 314841.0 | 2.6 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 5184.9 | 0.7 | **1.9330** | 0.011 | 0.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 8722.3 | 0.5 | **1.9241** | 0.013 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 475947.2 | 0.2 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 495426.7 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 87986.1 | 1.0 | **1.9711** | 0.016 | 0.8 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7338.6 | 2.0 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 91.0 | 14.4 | **1.9670** | 0.255 | 13.0 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12403.4 | 1.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 103.580 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 97.066 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 94.010 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 09, 2019 13:45:45
Report Date/Time: Thursday, October 10, 2019 11:40:09
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 156383.4 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 37.0 | 2.7 | 0.5607 | 0.035 | 6.3 | ug/L | 15 | Standard |
| | Se | 78 | 1189.0 | 7.6 | 1.1641 | 0.574 | 49.3 | ug/L | 989 | Standard |
| | Br | 79 | 67.3 | 9.9 | | | | ug/L | 67 | Standard |
| | Se | 82 | 88.3 | 4.6 | 0.5292 | 0.042 | 8.0 | ug/L | 29 | Standard |
| | Kr | 83 | 22.3 | 10.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 310920.6 | 2.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 1385.7 | 1.0 | 0.4918 | 0.006 | 1.1 | ug/L | 94 | Standard |
| | Ba | 137 | 2269.8 | 1.1 | 0.4738 | 0.008 | 1.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 475539.1 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 500903.1 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 23240.5 | 1.9 | 0.4762 | 0.012 | 2.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7516.0 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 26.3 | 24.7 | 0.5374 | 0.143 | 26.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 12484.5 | 2.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 104.653 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 96.983 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 96.283 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Wednesday, October 09, 2019 13:49:49
Report Date/Time: Thursday, October 10, 2019 11:40:11
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 152293.7 | 3.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1556.4 | 4.6 | **40.9696** | 1.106 | 2.7 | ug/L | 15 | Standard |
| | **Se** | 78 | 6413.8 | 3.5 | **42.0218** | 0.877 | 2.1 | ug/L | 989 | Standard |
| | **Br** | 79 | 60.3 | 15.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4425.0 | 1.0 | **41.1906** | 0.907 | 2.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 22.3 | 5.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 302043.9 | 5.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 103240.7 | 0.5 | **40.7104** | 0.328 | 0.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 173247.2 | 0.7 | **40.4744** | 0.452 | 1.1 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 457650.8 | 1.3 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 478465.7 | 0.5 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1690876.8 | 0.7 | **40.5614** | 0.802 | 2.0 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7273.9 | 3.3 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1713.8 | 1.8 | **37.9509** | 1.816 | 4.8 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12092.5 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 101.916 |
| | 77 | Se | 102.424 | |
| | 78 | Se | 105.055 | |
| | 79 | Br | | |
| | 82 | Se | 102.977 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 101.776 | |
| | 137 | Ba | 101.186 | |
| > | 159 | Tb | | 93.335 |
| | 165 | Ho | | |
| | 208 | Pb | 101.403 | |
| > | 72 | Ge-1 | | 93.181 |
| | 75 | As-2 | 94.877 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 13:53:54
Report Date/Time: Thursday, October 10, 2019 11:40:14
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158663.0 | 2.7 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 17.3 | 8.8 | **0.0458** | 0.051 | 111.1 | ug/L | 15 | Standard |
| | Se | 78 | 1118.4 | 2.6 | **0.5120** | 0.049 | 9.5 | ug/L | 989 | Standard |
| | Br | 79 | 69.7 | 12.0 | | | | ug/L | 67 | Standard |
| | Se | 82 | 31.0 | 34.0 | **0.0009** | 0.089 | 9418.1 | ug/L | 29 | Standard |
| | Kr | 83 | 21.3 | 25.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 314131.6 | 1.8 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 88.3 | 0.7 | **-0.0007** | 0.000 | 12.6 | ug/L | 94 | Standard |
| | Ba | 137 | 164.0 | 2.7 | **0.0002** | 0.001 | 470.2 | ug/L | 169 | Standard |
| > | Tb | 159 | 471841.7 | 0.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 489971.9 | 0.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2608.8 | 1.7 | **-0.0003** | 0.001 | 280.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7429.3 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2.0 | 50.0 | **0.0160** | 0.022 | 137.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 12545.8 | 1.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.179 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 96.229 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 95.172 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Wednesday, October 09, 2019 13:57:28
Report Date/Time: Thursday, October 10, 2019 11:40:17
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 132647.7 | 1.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 204.3 | 1.7 | **5.8389** | 0.108 | 1.8 | ug/L | 15 | Standard |
| | Se | 78 | 1495.7 | 4.6 | **5.5214** | 0.758 | 13.7 | ug/L | 989 | Standard |
| | Br | 79 | 1717.4 | 3.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 44.7 | 26.2 | **0.2045** | 0.132 | 64.4 | ug/L | 29 | Standard |
| | Kr | 83 | 93.7 | 5.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 245729.4 | 0.6 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 56.0 | 13.5 | **-0.0120** | 0.003 | 24.1 | ug/L | 94 | Standard |
| | Ba | 137 | 76.7 | 12.9 | **-0.0187** | 0.003 | 13.5 | ug/L | 169 | Standard |
| > | Tb | 159 | 449432.2 | 0.9 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 456498.1 | 0.6 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1770.4 | 0.8 | **-0.0178** | 0.001 | 4.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 6291.4 | 1.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2.7 | 43.3 | **0.0410** | 0.031 | 74.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 10844.1 | 4.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 88.769 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 91.658 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 80.595 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSAB

Sample Date/Time: Wednesday, October 09, 2019 14:01:32
Report Date/Time: Thursday, October 10, 2019 11:40:19
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 137012.4 | 1.9 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1611.4 | 5.2 | **47.1942** | 1.588 | 3.4 | ug/L | 15 | Standard |
| | Se | 78 | 6388.4 | 5.6 | **47.3370** | 2.095 | 4.4 | ug/L | 989 | Standard |
| | Br | 79 | 1871.5 | 3.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 3767.2 | 2.7 | **38.9426** | 0.585 | 1.5 | ug/L | 29 | Standard |
| | Kr | 83 | 94.3 | 8.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 258875.5 | 3.6 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 96722.3 | 0.1 | **37.0081** | 0.148 | 0.4 | ug/L | 94 | Standard |
| | Ba | 137 | 163974.5 | 1.6 | **37.1702** | 0.531 | 1.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 471581.7 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 483322.7 | 0.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1507379.5 | 0.4 | **35.0781** | 0.290 | 0.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 6576.5 | 2.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1576.1 | 3.4 | **38.5589** | 0.463 | 1.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 11781.2 | 1.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 91.690 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 96.176 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 84.248 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: MB1009SM1 5X

Sample Date/Time: Wednesday, October 09, 2019 14:05:42
Report Date/Time: Thursday, October 10, 2019 11:40:50
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149247.0 | 1.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 71.3 | 7.1 | **1.5376** | 0.137 | 8.9 | ug/L | 15 | Standard |
| | Se | 78 | 1080.0 | 6.7 | **0.7373** | 0.632 | 85.7 | ug/L | 989 | Standard |
| | Br | 79 | 155.3 | 7.4 | | | | ug/L | 67 | Standard |
| | Se | 82 | 30.7 | 10.5 | **0.0161** | 0.029 | 178.3 | ug/L | 29 | Standard |
| | Kr | 83 | 30.3 | 15.6 | | | | ug/L | 18 | Standard |
| | Y | 89 | 273261.8 | 2.0 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 318.0 | 1.7 | **0.0936** | 0.003 | 2.7 | ug/L | 94 | Standard |
| | Ba | 137 | 537.0 | 4.7 | **0.0912** | 0.005 | 5.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 448361.4 | 1.0 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 465514.7 | 1.7 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2174.7 | 0.1 | **-0.0077** | 0.001 | 7.5 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7269.2 | 2.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1.7 | 124.9 | **0.0096** | 0.047 | 490.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 11944.0 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 99.877 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 91.440 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 93.121 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1009SM1 50X**

Sample Date/Time: Wednesday, October 09, 2019 14:09:46
Report Date/Time: Thursday, October 10, 2019 11:40:52
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 159447.9 | 0.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1699.4 | 1.0 | **42.7504** | 0.574 | 1.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 6838.3 | 3.0 | **42.9328** | 1.364 | 3.2 | ug/L | 989 | Standard |
| | **Br** | 79 | 99.0 | 4.6 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4845.2 | 2.0 | **43.0717** | 0.931 | 2.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 25.3 | 9.9 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 323319.3 | 1.9 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 103597.6 | 1.0 | **38.8810** | 0.573 | 1.5 | ug/L | 94 | Standard |
| | **Ba** | 137 | 174671.4 | 0.8 | **38.8368** | 0.232 | 0.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 480809.8 | 0.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 498113.9 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 4183659.4 | 0.7 | **95.5920** | 0.642 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7734.8 | 1.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1814.1 | 3.5 | **37.7402** | 1.097 | 2.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 12853.5 | 3.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.704 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 98.058 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 99.086 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01 10X**

Sample Date/Time: Wednesday, October 09, 2019 14:13:49
Report Date/Time: Thursday, October 10, 2019 11:40:53
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 157005.8 | 2.8 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 68.3 | 12.2 | **1.3646** | 0.212 | 15.6 | ug/L | 15 | Standard |
| | **Se** | 78 | 1140.7 | 3.1 | **0.7676** | 0.029 | 3.8 | ug/L | 989 | Standard |
| | **Br** | 79 | 320.7 | 1.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 100.0 | 16.6 | **0.6295** | 0.125 | 19.8 | ug/L | 29 | Standard |
| | **Kr** | 83 | 60.7 | 3.8 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 348355.9 | 2.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 399985.0 | 1.1 | **142.8488** | 1.857 | 1.3 | ug/L | 94 | Standard |
| | **Ba** | 137 | 674936.9 | 0.8 | **142.8099** | 0.638 | 0.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 505590.0 | 0.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 515893.1 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 625779.1 | 1.1 | **13.5449** | 0.088 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7632.7 | 2.1 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 3802.2 | 1.7 | **80.2062** | 1.736 | 2.2 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16562.6 | 1.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 105.070 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 103.111 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 97.778 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01D 10X

Sample Date/Time: Wednesday, October 09, 2019 14:17:53
Report Date/Time: Thursday, October 10, 2019 11:40:56
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 159708.3 | 2.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 78.7 | 9.4 | **1.5963** | 0.175 | 10.9 | ug/L | 15 | Standard |
| | **Se** | 78 | 1142.7 | 9.4 | **0.6377** | 0.774 | 121.4 | ug/L | 989 | Standard |
| | **Br** | 79 | 312.7 | 4.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 95.3 | 4.0 | **0.5750** | 0.042 | 7.4 | ug/L | 29 | Standard |
| | **Kr** | 83 | 59.0 | 10.3 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 344587.0 | 3.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 383067.2 | 1.9 | **135.0552** | 1.362 | 1.0 | ug/L | 94 | Standard |
| | **Ba** | 137 | 638824.2 | 1.0 | **133.4512** | 0.934 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 512107.4 | 1.2 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 518321.4 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 607528.0 | 0.9 | **12.9807** | 0.087 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7614.0 | 2.4 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 3556.4 | 3.3 | **75.2197** | 3.194 | 4.2 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16481.2 | 1.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 106.878 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 104.441 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 97.539 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01L 50X**

Sample Date/Time: Wednesday, October 09, 2019 14:21:57
Report Date/Time: Thursday, October 10, 2019 11:40:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166519.1 | 1.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 29.7 | 7.0 | **0.3246** | 0.062 | 19.1 | ug/L | 15 | Standard |
| | Se | 78 | 1178.0 | 6.2 | **0.5380** | 0.365 | 67.8 | ug/L | 989 | Standard |
| | Br | 79 | 133.3 | 5.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 38.0 | 24.1 | **0.0478** | 0.072 | 150.9 | ug/L | 29 | Standard |
| | Kr | 83 | 29.0 | 13.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 323964.6 | 1.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 83737.4 | 0.9 | **30.3351** | 0.384 | 1.3 | ug/L | 94 | Standard |
| | Ba | 137 | 141688.6 | 1.4 | **30.4098** | 0.512 | 1.7 | ug/L | 169 | Standard |
| > | Tb | 159 | 497987.1 | 0.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 515422.4 | 0.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 135373.2 | 0.7 | **2.9273** | 0.021 | 0.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7786.1 | 1.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 758.7 | 1.8 | **15.6692** | 0.510 | 3.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 14038.9 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 111.436 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 101.561 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 99.744 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01MS 50X

Sample Date/Time: Wednesday, October 09, 2019 14:26:01
Report Date/Time: Thursday, October 10, 2019 11:41:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 161302.0 | 1.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1573.1 | 1.0 | **39.0868** | 0.576 | 1.5 | ug/L | 15 | Standard |
| | **Se** | 78 | 6261.7 | 0.9 | **38.1287** | 0.892 | 2.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 134.7 | 10.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4271.3 | 5.5 | **37.5033** | 2.153 | 5.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 32.0 | 5.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 321733.4 | 1.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 185059.0 | 1.0 | **68.0716** | 0.411 | 0.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 308840.7 | 1.2 | **67.3049** | 0.360 | 0.5 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 490752.1 | 1.2 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 506993.0 | 1.5 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 4179192.1 | 0.9 | **93.5612** | 1.265 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7886.5 | 2.9 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2564.6 | 2.8 | **52.3900** | 2.869 | 5.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14195.7 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 107.945 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 100.085 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 101.030 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01MSD 50X**

Sample Date/Time: Wednesday, October 09, 2019 14:30:05
Report Date/Time: Thursday, October 10, 2019 11:41:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 160060.7 | 0.7 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1624.1 | 2.8 | **40.6829** | 1.336 | 3.3 | ug/L | 15 | Standard |
| | Se | 78 | 6433.4 | 3.8 | **39.7450** | 1.695 | 4.3 | ug/L | 989 | Standard |
| | Br | 79 | 136.0 | 3.4 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4187.9 | 3.2 | **37.0450** | 1.058 | 2.9 | ug/L | 29 | Standard |
| | Kr | 83 | 34.0 | 35.7 | | | | ug/L | 18 | Standard |
| | Y | 89 | 309337.7 | 2.8 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 179064.7 | 1.1 | **66.3865** | 0.637 | 1.0 | ug/L | 94 | Standard |
| | Ba | 137 | 299386.5 | 1.6 | **65.7561** | 0.229 | 0.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 486924.3 | 1.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 500722.3 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 4169040.6 | 0.6 | **94.0715** | 1.081 | 1.1 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7948.5 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2479.2 | 2.9 | **50.2319** | 2.408 | 4.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 14127.7 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 107.114 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.305 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 101.824 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01PS 10X

Sample Date/Time: Wednesday, October 09, 2019 14:34:09
Report Date/Time: Thursday, October 10, 2019 11:41:06
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | **Ge** | 72 | 152208.4 | 1.8 | | | | ug/L | 149430 | Standard |
| \| | **Se** | 77 | 1613.4 | 0.5 | **42.5244** | 0.920 | 2.2 | ug/L | 15 | Standard |
| \| | **Se** | 78 | 6292.1 | 1.5 | **41.1042** | 0.422 | 1.0 | ug/L | 989 | Standard |
| \| | **Br** | 79 | 342.7 | 2.9 | | | | ug/L | 67 | Standard |
| [ | **Se** | 82 | 4036.9 | 3.5 | **37.5778** | 1.901 | 5.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 62.0 | 9.7 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 350873.9 | 4.5 | | | | ug/L | 281096 | Standard |
| [ | **Ba** | 135 | 509032.6 | 1.1 | **180.5774** | 2.851 | 1.6 | ug/L | 94 | Standard |
| \| | **Ba** | 137 | 862371.4 | 2.0 | **181.2272** | 1.575 | 0.9 | ug/L | 169 | Standard |
| \|> | **Tb** | 159 | 509092.8 | 1.9 | | | | ug/L | 490334 | Standard |
| \| | **Ho** | 165 | 512201.6 | 1.1 | | | | ug/L | 511925 | Standard |
| [ | **Pb** | 208 | 2194994.7 | 0.4 | **47.3453** | 0.736 | 1.6 | ug/L | 2724 | Standard |
| [> | **Ge-1** | 72 | 7449.9 | 1.9 | | | | ug/L | 7806 | KED |
| \| | **As-2** | 75 | 5641.4 | 0.2 | **121.9408** | 2.080 | 1.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16597.6 | 1.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| [> | 72 | Ge | | 101.859 |
| \| | 77 | Se | | |
| \| | 78 | Se | | |
| \| | 79 | Br | | |
| [ | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| [ | 135 | Ba | | |
| \| | 137 | Ba | | |
| \|> | 159 | Tb | | 103.826 |
| \| | 165 | Ho | | |
| [ | 208 | Pb | | |
| [> | 72 | Ge-1 | | 95.437 |
| [ | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 14:38:13
Report Date/Time: Thursday, October 10, 2019 11:41:08
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166577.0 | 4.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1645.4 | 2.2 | **39.6247** | 1.167 | 2.9 | ug/L | 15 | Standard |
| | Se | 78 | 6885.3 | 4.0 | **41.1098** | 0.657 | 1.6 | ug/L | 989 | Standard |
| | Br | 79 | 75.0 | 9.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4626.7 | 3.6 | **39.3600** | 0.529 | 1.3 | ug/L | 29 | Standard |
| | Kr | 83 | 23.3 | 27.6 | | | | ug/L | 18 | Standard |
| | Y | 89 | 317613.7 | 3.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 111982.2 | 1.2 | **41.0393** | 0.368 | 0.9 | ug/L | 94 | Standard |
| | Ba | 137 | 189027.7 | 0.6 | **41.0437** | 0.352 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 492408.0 | 1.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 510694.9 | 0.6 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1767605.9 | 1.2 | **39.4014** | 0.272 | 0.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8141.0 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1951.8 | 2.7 | **38.6045** | 1.810 | 4.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 13813.7 | 2.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 111.475 |
| | 77 | Se | 99.062 | |
| | 78 | Se | 102.775 | |
| | 79 | Br | | |
| | 82 | Se | 98.400 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 102.598 | |
| | 137 | Ba | 102.609 | |
| > | 159 | Tb | | 100.423 |
| | 165 | Ho | | |
| | 208 | Pb | 98.504 | |
| > | 72 | Ge-1 | | 104.290 |
| | 75 | As-2 | 96.511 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 14:42:18
Report Date/Time: Thursday, October 10, 2019 11:41:11
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 175853.6 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 15.0 | 40.0 | -0.0534 | 0.133 | 248.4 | ug/L | 15 | Standard |
| | Se | 78 | 1172.0 | 3.1 | 0.0584 | 0.264 | 452.3 | ug/L | 989 | Standard |
| | Br | 79 | 75.3 | 13.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 37.0 | 18.7 | 0.0235 | 0.057 | 244.9 | ug/L | 29 | Standard |
| | Kr | 83 | 24.7 | 27.0 | | | | ug/L | 18 | Standard |
| | Y | 89 | 330167.2 | 1.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 128.3 | 12.5 | 0.0107 | 0.006 | 54.6 | ug/L | 94 | Standard |
| | Ba | 137 | 167.7 | 1.8 | -0.0020 | 0.001 | 48.0 | ug/L | 169 | Standard |
| > | Tb | 159 | 513141.4 | 1.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 529817.9 | 1.5 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2860.4 | 1.3 | 0.0002 | 0.000 | 114.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8507.5 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 3.0 | 88.2 | 0.0292 | 0.050 | 169.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 14410.3 | 2.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.683 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 104.651 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 108.985 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01 50X

Sample Date/Time: Wednesday, October 09, 2019 14:47:12
Report Date/Time: Thursday, October 10, 2019 11:41:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163692.5 | 2.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 27.7 | 19.9 | **0.2851** | 0.119 | 41.8 | ug/L | 15 | Standard |
| | Se | 78 | 1167.7 | 4.8 | **0.6113** | 0.325 | 53.1 | ug/L | 989 | Standard |
| | Br | 79 | 107.7 | 4.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 48.7 | 14.4 | **0.1467** | 0.054 | 36.8 | ug/L | 29 | Standard |
| | Kr | 83 | 28.7 | 2.0 | | | | ug/L | 18 | Standard |
| | Y | 89 | 322812.7 | 2.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 81238.4 | 1.1 | **30.0611** | 0.169 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 137635.2 | 1.1 | **30.1734** | 0.173 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 487536.6 | 1.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 499493.4 | 1.4 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 129994.1 | 1.0 | **2.8708** | 0.075 | 2.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7793.8 | 0.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 742.4 | 2.1 | **15.3099** | 0.224 | 1.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 14062.6 | 3.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 109.544 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.430 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 99.842 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-01D 50X**

Sample Date/Time: Wednesday, October 09, 2019 14:51:16
Report Date/Time: Thursday, October 10, 2019 11:41:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 170798.5 | 2.9 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 31.0 | 19.6 | **0.3362** | 0.132 | 39.3 | ug/L | 15 | Standard |
| | **Se** | 78 | 1169.4 | 4.3 | **0.2725** | 0.256 | 94.0 | ug/L | 989 | Standard |
| | **Br** | 79 | 112.3 | 6.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 48.0 | 14.6 | **0.1236** | 0.051 | 41.7 | ug/L | 29 | Standard |
| | **Kr** | 83 | 33.7 | 16.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 332280.7 | 5.9 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 76675.6 | 0.9 | **27.5533** | 0.356 | 1.3 | ug/L | 94 | Standard |
| | **Ba** | 137 | 129572.4 | 1.6 | **27.5846** | 0.447 | 1.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 502037.4 | 2.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 514067.7 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 124723.4 | 0.8 | **2.6705** | 0.042 | 1.6 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8040.9 | 3.7 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 689.3 | 5.5 | **13.7905** | 0.915 | 6.6 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14282.1 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 114.300 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.387 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 103.008 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01L 250X

Sample Date/Time: Wednesday, October 09, 2019 14:55:19
Report Date/Time: Thursday, October 10, 2019 11:41:18
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 168344.8 | 1.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 17.0 | 20.4 | **0.0111** | 0.081 | 728.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1176.7 | 2.7 | **0.4436** | 0.282 | 63.6 | ug/L | 989 | Standard |
| | **Br** | 79 | 74.0 | 10.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 40.0 | 30.7 | **0.0617** | 0.103 | 166.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 24.7 | 16.4 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 317290.5 | 1.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 17701.3 | 2.0 | **6.5204** | 0.089 | 1.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 30106.0 | 0.8 | **6.5687** | 0.016 | 0.2 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 487694.3 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 505789.4 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 28495.5 | 1.0 | **0.5813** | 0.008 | 1.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8212.4 | 2.5 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 170.3 | 7.4 | **3.3168** | 0.309 | 9.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 13950.8 | 3.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 112.658 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.462 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 105.204 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-01PS 50X

Sample Date/Time: Wednesday, October 09, 2019 14:59:22
Report Date/Time: Thursday, October 10, 2019 11:41:20
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 165468.9 | 1.3 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1705.8 | 3.2 | 41.3384 | 1.451 | 3.5 | ug/L | 15 | Standard |
| | Se | 78 | 6813.0 | 2.0 | 40.9199 | 1.584 | 3.9 | ug/L | 989 | Standard |
| | Br | 79 | 105.3 | 4.4 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4539.7 | 6.1 | 38.8705 | 2.593 | 6.7 | ug/L | 29 | Standard |
| | Kr | 83 | 32.3 | 1.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 314319.6 | 3.9 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 181328.3 | 0.9 | 68.0816 | 0.356 | 0.5 | ug/L | 94 | Standard |
| | Ba | 137 | 304638.3 | 0.7 | 67.7670 | 0.290 | 0.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 480768.7 | 0.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 499773.7 | 0.6 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1792976.3 | 0.7 | 40.9367 | 0.394 | 1.0 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7831.1 | 1.9 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2605.6 | 2.0 | 53.5507 | 0.285 | 0.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 14065.9 | 2.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.733 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 98.049 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 100.320 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-02 50X

Sample Date/Time: Wednesday, October 09, 2019 15:06:00
Report Date/Time: Thursday, October 10, 2019 11:41:23
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164151.4 | 0.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 32.0 | 11.3 | **0.3917** | 0.087 | 22.2 | ug/L | 15 | Standard |
| | Se | 78 | 1184.7 | 3.3 | **0.7122** | 0.325 | 45.7 | ug/L | 989 | Standard |
| | Br | 79 | 201.3 | 12.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 37.0 | 24.0 | **0.0445** | 0.076 | 171.6 | ug/L | 29 | Standard |
| | Kr | 83 | 42.7 | 13.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 339287.0 | 5.3 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 90801.0 | 0.2 | **34.3410** | 0.150 | 0.4 | ug/L | 94 | Standard |
| | Ba | 137 | 151074.6 | 0.5 | **33.8504** | 0.278 | 0.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 477057.3 | 0.3 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 493070.3 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 96524.6 | 1.1 | **2.1632** | 0.026 | 1.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7818.8 | 1.6 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 608.7 | 0.4 | **12.5111** | 0.245 | 2.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 14775.6 | 3.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 109.851 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 97.292 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 100.162 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-03 50X

Sample Date/Time: Wednesday, October 09, 2019 15:10:03
Report Date/Time: Thursday, October 10, 2019 11:41:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 173139.6 | 2.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 50.7 | 16.8 | **0.7909** | 0.227 | 28.8 | ug/L | 15 | Standard |
| | Se | 78 | 1225.7 | 5.9 | **0.5468** | 0.424 | 77.5 | ug/L | 989 | Standard |
| | Br | 79 | 134.7 | 1.7 | | | | ug/L | 67 | Standard |
| | Se | 82 | 69.0 | 11.5 | **0.2909** | 0.053 | 18.1 | ug/L | 29 | Standard |
| | Kr | 83 | 34.3 | 16.8 | | | | ug/L | 18 | Standard |
| | Y | 89 | 331387.5 | 1.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 50473.7 | 0.6 | **18.2359** | 0.123 | 0.7 | ug/L | 94 | Standard |
| | Ba | 137 | 84951.9 | 1.3 | **18.1819** | 0.153 | 0.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 498942.0 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 511800.9 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 91149.2 | 0.3 | **1.9472** | 0.010 | 0.5 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8225.0 | 1.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1228.7 | 1.7 | **24.0284** | 0.094 | 0.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 14722.9 | 1.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 115.866 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.756 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 105.366 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-04 50X

Sample Date/Time: Wednesday, October 09, 2019 15:14:06
Report Date/Time: Thursday, October 10, 2019 11:41:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 169322.6 | 0.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 51.7 | 16.9 | 0.8375 | 0.206 | 24.6 | ug/L | 15 | Standard |
| | Se | 78 | 1296.4 | 3.7 | 1.2314 | 0.352 | 28.6 | ug/L | 989 | Standard |
| | Br | 79 | 93.3 | 7.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 99.7 | 5.1 | 0.5629 | 0.044 | 7.9 | ug/L | 29 | Standard |
| | Kr | 83 | 34.3 | 17.1 | | | | ug/L | 18 | Standard |
| | Y | 89 | 312276.1 | 2.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 28350.8 | 0.9 | 10.7008 | 0.157 | 1.5 | ug/L | 94 | Standard |
| | Ba | 137 | 47517.9 | 1.0 | 10.6232 | 0.088 | 0.8 | ug/L | 169 | Standard |
| > | Tb | 159 | 476984.9 | 0.7 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 492412.9 | 1.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 40264.3 | 1.5 | 0.8670 | 0.018 | 2.1 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8058.9 | 3.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 962.7 | 5.8 | 19.2339 | 1.471 | 7.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 13827.0 | 3.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 113.312 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 97.278 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 103.239 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-05 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:18:08
Report Date/Time: Thursday, October 10, 2019 11:41:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 172603.7 | 2.0 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 50.7 | 7.5 | **0.7918** | 0.101 | 12.8 | ug/L | 15 | Standard |
| | Se | 78 | 1251.1 | 3.2 | **0.7517** | 0.386 | 51.4 | ug/L | 989 | Standard |
| | Br | 79 | 164.3 | 6.7 | | | | ug/L | 67 | Standard |
| | Se | 82 | 78.7 | 9.4 | **0.3741** | 0.072 | 19.1 | ug/L | 29 | Standard |
| | Kr | 83 | 30.7 | 1.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 331885.0 | 4.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 76635.7 | 0.8 | **28.0181** | 0.151 | 0.5 | ug/L | 94 | Standard |
| | Ba | 137 | 127940.7 | 1.1 | **27.7111** | 0.252 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 493378.9 | 0.2 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 511349.2 | 1.3 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 100214.5 | 0.2 | **2.1718** | 0.002 | 0.1 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8159.0 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1723.4 | 4.8 | **33.9943** | 1.727 | 5.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 14320.2 | 3.9 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 115.508 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 100.621 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.520 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-06 50X

Sample Date/Time: Wednesday, October 09, 2019 15:22:12
Report Date/Time: Thursday, October 10, 2019 11:41:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 165665.8 | 1.1 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 36.0 | 12.1 | **0.4821** | 0.102 | 21.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1214.4 | 4.6 | **0.8445** | 0.366 | 43.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 188.3 | 4.8 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 63.0 | 15.3 | **0.2653** | 0.079 | 29.8 | ug/L | 29 | Standard |
| | **Kr** | 83 | 36.7 | 8.3 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 321487.0 | 3.1 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 108718.2 | 1.1 | **40.1928** | 0.132 | 0.3 | ug/L | 94 | Standard |
| | **Ba** | 137 | 181940.6 | 0.5 | **39.8524** | 0.366 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 488112.3 | 1.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 498976.0 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 109238.8 | 1.3 | **2.3992** | 0.004 | 0.2 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7930.2 | 4.4 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1147.4 | 1.7 | **23.2902** | 0.643 | 2.8 | ug/L | 1 | KED |
| | **Y-1** | 89 | 14583.8 | 0.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 110.865 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.547 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 101.589 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-07 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:26:16
Report Date/Time: Thursday, October 10, 2019 11:41:35
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166150.7 | 0.9 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 36.0 | 10.0 | 0.4804 | 0.096 | 20.1 | ug/L | 15 | Standard |
| | Se | 78 | 1235.4 | 0.5 | 0.9701 | 0.127 | 13.1 | ug/L | 989 | Standard |
| | Br | 79 | 177.0 | 7.2 | | | | ug/L | 67 | Standard |
| | Se | 82 | 58.7 | 4.9 | 0.2270 | 0.029 | 12.9 | ug/L | 29 | Standard |
| | Kr | 83 | 44.0 | 4.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 331823.3 | 0.9 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 92537.4 | 0.5 | 34.5337 | 0.050 | 0.1 | ug/L | 94 | Standard |
| | Ba | 137 | 155703.0 | 0.8 | 34.4245 | 0.085 | 0.2 | ug/L | 169 | Standard |
| > | Tb | 159 | 483469.4 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 492070.3 | 1.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 114919.9 | 1.1 | 2.5519 | 0.016 | 0.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8119.0 | 2.9 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1517.4 | 3.7 | 30.0855 | 1.383 | 4.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 15064.3 | 4.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 111.189 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 98.600 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.008 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 15:30:20
Report Date/Time: Thursday, October 10, 2019 11:41:37
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 182039.1 | 2.0 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1846.8 | 3.8 | **40.6790** | 1.625 | 4.0 | ug/L | 15 | Standard |
| | Se | 78 | 7255.5 | 3.1 | **39.3494** | 1.162 | 3.0 | ug/L | 989 | Standard |
| | Br | 79 | 65.0 | 9.6 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4864.8 | 3.7 | **37.8410** | 0.968 | 2.6 | ug/L | 29 | Standard |
| | Kr | 83 | 29.3 | 17.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 332058.3 | 4.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 115076.6 | 0.5 | **41.5673** | 0.262 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 193354.2 | 1.2 | **41.3762** | 0.084 | 0.2 | ug/L | 169 | Standard |
| > | Tb | 159 | 499598.9 | 1.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 518801.9 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1814400.2 | 0.9 | **39.8671** | 0.720 | 1.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8588.6 | 2.0 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1999.5 | 3.7 | **37.4591** | 1.029 | 2.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 14842.0 | 1.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 121.822 |
| | 77 | Se | 101.698 | |
| | 78 | Se | 98.373 | |
| | 79 | Br | | |
| | 82 | Se | 94.603 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 103.918 | |
| | 137 | Ba | 103.440 | |
| > | 159 | Tb | | 101.890 |
| | 165 | Ho | | |
| | 208 | Pb | 99.668 | |
| > | 72 | Ge-1 | | 110.023 |
| | 75 | As-2 | 93.648 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Wednesday, October 09, 2019 15:34:24
Report Date/Time: Thursday, October 10, 2019 11:41:39
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 187723.9 | 3.3 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 17.3 | 26.0 | **-0.0253** | 0.085 | 335.0 | ug/L | 15 | Standard |
| | Se | 78 | 1238.1 | 3.4 | **-0.0240** | 0.188 | 785.9 | ug/L | 989 | Standard |
| | Br | 79 | 65.0 | 12.2 | | | | ug/L | 67 | Standard |
| | Se | 82 | 37.3 | 15.5 | **0.0074** | 0.048 | 648.9 | ug/L | 29 | Standard |
| | Kr | 83 | 33.0 | 27.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 351412.1 | 3.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 127.7 | 6.8 | **0.0096** | 0.003 | 30.2 | ug/L | 94 | Standard |
| | Ba | 137 | 182.0 | 2.9 | **0.0003** | 0.001 | 334.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 522347.8 | 0.7 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 538938.5 | 0.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2818.1 | 2.0 | **-0.0018** | 0.001 | 48.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8736.3 | 2.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2.7 | 43.3 | **0.0214** | 0.020 | 94.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 15393.3 | 3.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 125.626 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 106.529 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 111.916 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-08 50X

Sample Date/Time: Wednesday, October 09, 2019 15:38:25
Report Date/Time: Thursday, October 10, 2019 11:41:43
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 160437.9 | 1.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 33.3 | 12.1 | **0.4432** | 0.095 | 21.5 | ug/L | 15 | Standard |
| | **Se** | 78 | 1222.4 | 2.4 | **1.1886** | 0.296 | 24.9 | ug/L | 989 | Standard |
| | **Br** | 79 | 220.7 | 3.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 65.0 | 16.3 | **0.3008** | 0.091 | 30.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 50.0 | 20.3 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 344694.7 | 1.2 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 118506.9 | 1.1 | **43.7432** | 0.896 | 2.0 | ug/L | 94 | Standard |
| | **Ba** | 137 | 200704.1 | 0.9 | **43.8893** | 0.636 | 1.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 488961.7 | 1.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 493499.6 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 123174.4 | 2.0 | **2.7087** | 0.082 | 3.0 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7779.1 | 2.2 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1198.1 | 2.3 | **24.7879** | 1.062 | 4.3 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15261.8 | 2.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 107.366 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.720 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 99.654 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-09 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:42:28
Report Date/Time: Thursday, October 10, 2019 11:41:45
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 169330.8 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 30.7 | 27.7 | **0.3357** | 0.204 | 60.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 1227.4 | 2.0 | **0.7477** | 0.077 | 10.3 | ug/L | 989 | Standard |
| | **Br** | 79 | 227.3 | 4.0 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 52.7 | 8.8 | **0.1670** | 0.042 | 25.0 | ug/L | 29 | Standard |
| | **Kr** | 83 | 40.3 | 7.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 342966.6 | 2.1 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 96598.2 | 0.3 | **34.9695** | 0.131 | 0.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 163970.4 | 1.2 | **35.1665** | 0.257 | 0.7 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 498402.9 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 505388.5 | 1.3 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 124487.0 | 0.9 | **2.6847** | 0.023 | 0.9 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8052.6 | 4.7 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 959.7 | 0.9 | **19.1942** | 0.974 | 5.1 | ug/L | 1 | KED |
| | **Y-1** | 89 | 15308.5 | 4.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 113.317 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.646 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 103.157 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-01 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:46:32
Report Date/Time: Thursday, October 10, 2019 11:41:47
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 172652.4 | 3.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 28.3 | 28.5 | **0.2656** | 0.178 | 66.8 | ug/L | 15 | Standard |
| | Se | 78 | 1224.4 | 0.9 | **0.5665** | 0.192 | 33.9 | ug/L | 989 | Standard |
| | Br | 79 | 212.7 | 8.0 | | | | ug/L | 67 | Standard |
| | Se | 82 | 55.0 | 4.8 | **0.1777** | 0.021 | 11.8 | ug/L | 29 | Standard |
| | Kr | 83 | 47.3 | 8.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 351032.7 | 1.8 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 118707.8 | 0.3 | **42.2624** | 0.354 | 0.8 | ug/L | 94 | Standard |
| | Ba | 137 | 198285.3 | 0.5 | **41.8228** | 0.276 | 0.7 | ug/L | 169 | Standard |
| > | Tb | 159 | 506900.1 | 1.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 515924.6 | 1.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 90990.6 | 0.4 | **1.9124** | 0.026 | 1.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8171.0 | 3.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1325.4 | 0.3 | **26.1136** | 0.877 | 3.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 15403.6 | 2.0 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 115.540 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 103.379 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.674 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-02 50X

Sample Date/Time: Wednesday, October 09, 2019 15:50:35
Report Date/Time: Thursday, October 10, 2019 11:41:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 165109.1 | 3.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 29.0 | 6.0 | **0.3136** | 0.031 | 10.0 | ug/L | 15 | Standard |
| | Se | 78 | 1260.1 | 3.7 | **1.2079** | 0.414 | 34.3 | ug/L | 989 | Standard |
| | Br | 79 | 244.3 | 3.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 54.3 | 16.7 | **0.1945** | 0.092 | 47.2 | ug/L | 29 | Standard |
| | Kr | 83 | 47.7 | 8.7 | | | | ug/L | 18 | Standard |
| | Y | 89 | 360124.1 | 4.4 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 141997.7 | 1.4 | **51.5320** | 1.163 | 2.3 | ug/L | 94 | Standard |
| | Ba | 137 | 239461.1 | 1.2 | **51.4804** | 0.521 | 1.0 | ug/L | 169 | Standard |
| > | Tb | 159 | 497451.3 | 2.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 503914.0 | 1.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 95999.5 | 0.6 | **2.0609** | 0.036 | 1.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7937.9 | 2.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 608.0 | 4.6 | **12.3124** | 0.642 | 5.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 15532.4 | 3.8 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.492 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.452 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 101.688 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-03 50X**

Sample Date/Time: Wednesday, October 09, 2019 15:54:39
Report Date/Time: Thursday, October 10, 2019 11:41:51
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 176142.9 | 3.0 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 23.7 | 12.9 | **0.1471** | 0.075 | 51.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1253.4 | 5.9 | **0.5864** | 0.256 | 43.6 | ug/L | 989 | Standard |
| | **Br** | 79 | 187.3 | 10.5 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 45.3 | 5.6 | **0.0901** | 0.011 | 12.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 50.0 | 21.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 381206.1 | 3.6 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 117900.3 | 1.9 | **41.6942** | 1.084 | 2.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 197436.7 | 0.4 | **41.3624** | 0.328 | 0.8 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 510345.1 | 1.0 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 523232.8 | 0.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 98490.7 | 0.5 | **2.0605** | 0.009 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 8222.7 | 2.7 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 155.0 | 3.4 | **3.0083** | 0.082 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 16218.5 | 4.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.876 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 104.081 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 105.336 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-04 50X

Sample Date/Time: Wednesday, October 09, 2019 15:58:42
Report Date/Time: Thursday, October 10, 2019 11:41:54
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 175337.4 | 4.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 19.3 | 7.9 | **0.0490** | 0.028 | 56.5 | ug/L | 15 | Standard |
| | Se | 78 | 1257.1 | 7.1 | **0.6501** | 0.346 | 53.2 | ug/L | 989 | Standard |
| | Br | 79 | 194.3 | 16.9 | | | | ug/L | 67 | Standard |
| | Se | 82 | 52.3 | 9.0 | **0.1496** | 0.044 | 29.6 | ug/L | 29 | Standard |
| | Kr | 83 | 41.0 | 16.0 | | | | ug/L | 18 | Standard |
| | Y | 89 | 362199.1 | 4.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 117765.1 | 1.4 | **41.7996** | 0.453 | 1.1 | ug/L | 94 | Standard |
| | Ba | 137 | 197875.0 | 0.5 | **41.6169** | 0.849 | 2.0 | ug/L | 169 | Standard |
| > | Tb | 159 | 508465.3 | 2.0 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 518646.5 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 184860.1 | 0.6 | **3.9366** | 0.074 | 1.9 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8143.0 | 2.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 633.0 | 1.5 | **12.4993** | 0.484 | 3.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 15765.0 | 0.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.337 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 103.698 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.315 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-05 50X

Sample Date/Time: Wednesday, October 09, 2019 16:02:45
Report Date/Time: Thursday, October 10, 2019 11:41:56
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 175952.7 | 1.2 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 32.3 | 12.9 | **0.3462** | 0.091 | 26.3 | ug/L | 15 | Standard |
| | Se | 78 | 1283.1 | 4.7 | **0.8031** | 0.493 | 61.4 | ug/L | 989 | Standard |
| | Br | 79 | 195.7 | 5.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 59.0 | 9.0 | **0.2015** | 0.042 | 20.9 | ug/L | 29 | Standard |
| | Kr | 83 | 47.3 | 27.6 | | | | ug/L | 18 | Standard |
| | Y | 89 | 369323.4 | 3.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 128051.8 | 2.0 | **45.5184** | 0.790 | 1.7 | ug/L | 94 | Standard |
| | Ba | 137 | 213703.9 | 1.7 | **45.0034** | 0.271 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 507716.8 | 1.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 520718.1 | 1.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 151873.2 | 1.1 | **3.2275** | 0.022 | 0.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8128.3 | 1.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1030.0 | 2.9 | **20.3859** | 0.838 | 4.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 15355.9 | 3.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.749 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 103.545 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 104.127 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-06 50X

Sample Date/Time: Wednesday, October 09, 2019 16:06:48
Report Date/Time: Thursday, October 10, 2019 11:41:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 175182.6 | 2.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 32.3 | 14.6 | **0.3504** | 0.113 | 32.1 | ug/L | 15 | Standard |
| | Se | 78 | 1283.1 | 2.7 | **0.8397** | 0.268 | 32.0 | ug/L | 989 | Standard |
| | Br | 79 | 191.0 | 5.0 | | | | ug/L | 67 | Standard |
| | Se | 82 | 55.3 | 22.9 | **0.1735** | 0.100 | 57.4 | ug/L | 29 | Standard |
| | Kr | 83 | 39.0 | 4.4 | | | | ug/L | 18 | Standard |
| | Y | 89 | 372670.7 | 5.8 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 114198.0 | 1.3 | **40.3483** | 0.659 | 1.6 | ug/L | 94 | Standard |
| | Ba | 137 | 191618.9 | 0.8 | **40.1103** | 0.447 | 1.1 | ug/L | 169 | Standard |
| > | Tb | 159 | 510762.4 | 1.1 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 519456.3 | 0.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 173484.2 | 0.9 | **3.6730** | 0.051 | 1.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8141.3 | 3.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1090.0 | 3.4 | **21.5657** | 1.464 | 6.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 15596.5 | 0.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.234 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.166 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.294 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-02 10X

Sample Date/Time: Wednesday, October 09, 2019 16:10:51
Report Date/Time: Thursday, October 10, 2019 11:42:00
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 162324.8 | 1.4 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 89.3 | 2.6 | **1.8314** | 0.089 | 4.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 1134.4 | 5.2 | **0.4388** | 0.363 | 82.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 604.3 | 1.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 89.7 | 13.5 | **0.5102** | 0.096 | 18.8 | ug/L | 29 | Standard |
| | **Kr** | 83 | 93.3 | 8.7 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 427322.5 | 0.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 444137.9 | 0.6 | **155.3089** | 0.889 | 0.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 754670.7 | 0.6 | **156.3567** | 1.201 | 0.8 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 516366.5 | 0.8 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 514920.0 | 1.0 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 450617.0 | 0.5 | **9.5324** | 0.077 | 0.8 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7702.7 | 1.1 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2993.0 | 2.6 | **62.5538** | 2.031 | 3.2 | ug/L | 1 | KED |
| | **Y-1** | 89 | 20390.2 | 1.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 108.629 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 105.309 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 98.676 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-03 20X

Sample Date/Time: Wednesday, October 09, 2019 16:14:53
Report Date/Time: Thursday, October 10, 2019 11:42:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 167627.2 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 82.7 | 10.8 | 1.5975 | 0.189 | 11.8 | ug/L | 15 | Standard |
| | Se | 78 | 1271.7 | 1.6 | 1.1493 | 0.155 | 13.5 | ug/L | 989 | Standard |
| | Br | 79 | 282.7 | 12.1 | | | | ug/L | 67 | Standard |
| | Se | 82 | 106.0 | 9.4 | 0.6257 | 0.091 | 14.5 | ug/L | 29 | Standard |
| | Kr | 83 | 41.3 | 18.3 | | | | ug/L | 18 | Standard |
| | Y | 89 | 327831.9 | 1.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 127199.5 | 0.9 | 47.5007 | 0.651 | 1.4 | ug/L | 94 | Standard |
| | Ba | 137 | 213830.0 | 1.4 | 47.3044 | 0.264 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 483316.5 | 1.2 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 502515.3 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 229548.3 | 0.8 | 5.1606 | 0.087 | 1.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7870.2 | 1.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 3081.3 | 0.3 | 63.0268 | 0.708 | 1.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 15000.9 | 0.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 112.177 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 98.569 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 100.820 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 16:18:56
Report Date/Time: Thursday, October 10, 2019 11:42:05
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 170502.1 | 3.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1721.8 | 2.9 | **40.4872** | 0.610 | 1.5 | ug/L | 15 | Standard |
| | Se | 78 | 7207.8 | 3.6 | **42.2232** | 1.682 | 4.0 | ug/L | 989 | Standard |
| | Br | 79 | 100.7 | 7.7 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4719.1 | 2.0 | **39.2166** | 0.640 | 1.6 | ug/L | 29 | Standard |
| | Kr | 83 | 30.3 | 6.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 322977.4 | 2.0 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 110977.7 | 0.4 | **41.8587** | 0.490 | 1.2 | ug/L | 94 | Standard |
| | Ba | 137 | 185085.3 | 0.6 | **41.3584** | 0.365 | 0.9 | ug/L | 169 | Standard |
| > | Tb | 159 | 478482.5 | 1.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 496415.4 | 1.6 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1737628.4 | 1.0 | **39.8619** | 0.176 | 0.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8087.3 | 1.4 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1944.5 | 1.5 | **38.7010** | 1.137 | 2.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 14314.5 | 2.4 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 114.101 |
| | 77 | Se | 101.218 | |
| | 78 | Se | 105.558 | |
| | 79 | Br | | |
| | 82 | Se | 98.041 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 104.647 | |
| | 137 | Ba | 103.396 | |
| > | 159 | Tb | | 97.583 |
| | 165 | Ho | | |
| | 208 | Pb | 99.655 | |
| > | 72 | Ge-1 | | 103.602 |
| | 75 | As-2 | 96.753 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 16:23:01
Report Date/Time: Thursday, October 10, 2019 11:42:08
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 181570.8 | 1.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 16.3 | 27.6 | -0.0342 | 0.095 | 277.1 | ug/L | 15 | Standard |
| | Se | 78 | 1223.7 | 3.4 | 0.1444 | 0.158 | 109.6 | ug/L | 989 | Standard |
| | Br | 79 | 83.7 | 3.0 | | | | ug/L | 67 | Standard |
| | Se | 82 | 38.0 | 12.1 | 0.0219 | 0.039 | 176.8 | ug/L | 29 | Standard |
| | Kr | 83 | 24.3 | 13.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 341259.5 | 3.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 140.3 | 3.2 | 0.0162 | 0.002 | 12.6 | ug/L | 94 | Standard |
| | Ba | 137 | 171.0 | 12.0 | -0.0004 | 0.005 | 1312.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 500342.9 | 0.8 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 520333.2 | 1.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2762.8 | 1.5 | -0.0004 | 0.001 | 183.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8540.9 | 3.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2.3 | 89.2 | 0.0173 | 0.040 | 232.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 14859.4 | 1.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 121.509 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 102.041 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 109.413 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-05 20X

Sample Date/Time: Wednesday, October 09, 2019 16:28:16
Report Date/Time: Thursday, October 10, 2019 11:42:10
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164435.0 | 2.6 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 109.0 | 14.3 | **2.2893** | 0.410 | 17.9 | ug/L | 15 | Standard |
| | Se | 78 | 1319.1 | 0.6 | **1.6669** | 0.196 | 11.7 | ug/L | 989 | Standard |
| | Br | 79 | 296.7 | 1.9 | | | | ug/L | 67 | Standard |
| | Se | 82 | 161.0 | 4.3 | **1.1198** | 0.044 | 3.9 | ug/L | 29 | Standard |
| | Kr | 83 | 46.7 | 13.1 | | | | ug/L | 18 | Standard |
| | Y | 89 | 334448.1 | 3.7 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 191082.3 | 1.7 | **71.0329** | 1.274 | 1.8 | ug/L | 94 | Standard |
| | Ba | 137 | 319505.7 | 1.2 | **70.3679** | 0.772 | 1.1 | ug/L | 169 | Standard |
| > | Tb | 159 | 485607.7 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 495324.8 | 1.8 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 242738.6 | 1.1 | **5.4338** | 0.034 | 0.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7908.5 | 3.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 4291.3 | 1.4 | **87.4277** | 3.468 | 4.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 15065.9 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 110.041 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.036 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 101.312 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-06 20X**

Sample Date/Time: Wednesday, October 09, 2019 16:32:19
Report Date/Time: Thursday, October 10, 2019 11:42:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 167136.5 | 4.3 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 70.0 | 10.8 | **1.2951** | 0.114 | 8.8 | ug/L | 15 | Standard |
| | Se | 78 | 1281.1 | 2.0 | **1.2506** | 0.384 | 30.7 | ug/L | 989 | Standard |
| | Br | 79 | 399.3 | 3.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 104.7 | 14.5 | **0.6151** | 0.105 | 17.1 | ug/L | 29 | Standard |
| | Kr | 83 | 55.7 | 23.4 | | | | ug/L | 18 | Standard |
| | Y | 89 | 353540.3 | 2.8 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 289917.7 | 0.5 | **103.9997** | 0.607 | 0.6 | ug/L | 94 | Standard |
| | Ba | 137 | 486850.4 | 1.3 | **103.4703** | 1.128 | 1.1 | ug/L | 169 | Standard |
| > | Tb | 159 | 503304.8 | 0.6 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 515170.9 | 0.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 284478.0 | 1.7 | **6.1523** | 0.087 | 1.4 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7997.2 | 1.1 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2953.3 | 4.3 | **59.4541** | 2.908 | 4.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 16449.1 | 1.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 111.849 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 102.645 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 102.448 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-07 10X

Sample Date/Time: Wednesday, October 09, 2019 16:36:24
Report Date/Time: Thursday, October 10, 2019 11:42:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 162546.2 | 3.4 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 96.7 | 7.8 | **2.0133** | 0.222 | 11.0 | ug/L | 15 | Standard |
| | **Se** | 78 | 1222.7 | 5.5 | **1.0735** | 0.420 | 39.2 | ug/L | 989 | Standard |
| | **Br** | 79 | 636.0 | 2.3 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 139.3 | 1.5 | **0.9465** | 0.023 | 2.5 | ug/L | 29 | Standard |
| | **Kr** | 83 | 114.0 | 11.6 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 398709.5 | 1.2 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 466192.5 | 0.6 | **162.0376** | 1.953 | 1.2 | ug/L | 94 | Standard |
| | **Ba** | 137 | 785810.4 | 1.2 | **161.8134** | 0.942 | 0.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 519523.6 | 0.7 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 517408.6 | 0.8 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 557425.5 | 1.1 | **11.7344** | 0.172 | 1.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7663.4 | 0.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 7565.3 | 2.1 | **158.9541** | 3.758 | 2.4 | ug/L | 1 | KED |
| | **Y-1** | 89 | 18719.9 | 2.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 108.777 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 105.953 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 98.171 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-08 20X**

Sample Date/Time: Wednesday, October 09, 2019 16:40:28
Report Date/Time: Thursday, October 10, 2019 11:42:17
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 164243.7 | 2.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 74.0 | 5.9 | **1.4286** | 0.144 | 10.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1170.4 | 2.4 | **0.6082** | 0.368 | 60.5 | ug/L | 989 | Standard |
| | **Br** | 79 | 470.3 | 5.2 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 87.0 | 10.0 | **0.4780** | 0.062 | 13.0 | ug/L | 29 | Standard |
| | **Kr** | 83 | 81.7 | 9.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 396032.9 | 0.7 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 283174.0 | 1.4 | **102.8408** | 1.857 | 1.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 475375.0 | 2.2 | **102.2684** | 0.916 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 497268.5 | 2.7 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 507157.7 | 1.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 292554.7 | 0.8 | **6.4086** | 0.129 | 2.0 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7844.2 | 3.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 2859.6 | 2.3 | **58.7100** | 1.595 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 17968.0 | 1.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 109.913 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 101.414 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 100.487 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-077-09 10X

Sample Date/Time: Wednesday, October 09, 2019 16:44:32
Report Date/Time: Thursday, October 10, 2019 11:42:19
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161677.8 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 84.7 | 5.6 | **1.7219** | 0.094 | 5.4 | ug/L | 15 | Standard |
| | Se | 78 | 1174.4 | 2.8 | **0.7670** | 0.263 | 34.3 | ug/L | 989 | Standard |
| | Br | 79 | 831.0 | 4.6 | | | | ug/L | 67 | Standard |
| | Se | 82 | 127.7 | 10.8 | **0.8496** | 0.122 | 14.3 | ug/L | 29 | Standard |
| | Kr | 83 | 106.7 | 16.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 440266.0 | 4.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 483292.0 | 0.1 | **164.8037** | 0.803 | 0.5 | ug/L | 94 | Standard |
| | Ba | 137 | 821429.8 | 0.8 | **165.9649** | 2.145 | 1.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 529522.7 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 526598.4 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 591314.4 | 1.3 | **12.2152** | 0.202 | 1.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7595.0 | 1.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 4708.4 | 2.7 | **99.8215** | 3.120 | 3.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 21857.7 | 1.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 108.196 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 107.992 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 97.296 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-01 10X

Sample Date/Time: Wednesday, October 09, 2019 16:48:35
Report Date/Time: Thursday, October 10, 2019 11:42:21
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 158768.7 | 2.2 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 46.7 | 11.0 | **0.7912** | 0.108 | 13.7 | ug/L | 15 | Standard |
| | **Se** | 78 | 1171.0 | 2.9 | **0.9052** | 0.438 | 48.4 | ug/L | 989 | Standard |
| | **Br** | 79 | 739.7 | 7.6 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 109.7 | 8.3 | **0.7082** | 0.072 | 10.1 | ug/L | 29 | Standard |
| | **Kr** | 83 | 98.7 | 8.1 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 412673.3 | 2.1 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 540249.5 | 1.9 | **185.0392** | 0.805 | 0.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 916533.1 | 1.0 | **186.0088** | 0.875 | 0.5 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 527177.9 | 1.5 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 526957.7 | 1.1 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 397495.2 | 1.4 | **8.2277** | 0.008 | 0.1 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7709.4 | 1.6 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 5775.2 | 1.1 | **120.6365** | 3.236 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 20602.5 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 106.249 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.514 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 98.761 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-02 10X

Sample Date/Time: Wednesday, October 09, 2019 16:52:38
Report Date/Time: Thursday, October 10, 2019 11:42:24
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 146515.9 | 1.4 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 52.0 | 8.4 | **1.0406** | 0.138 | 13.3 | ug/L | 15 | Standard |
| | Se | 78 | 1164.0 | 2.4 | **1.5755** | 0.348 | 22.1 | ug/L | 989 | Standard |
| | Br | 79 | 844.0 | 0.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 109.3 | 14.0 | **0.7892** | 0.163 | 20.7 | ug/L | 29 | Standard |
| | Kr | 83 | 115.0 | 9.1 | | | | ug/L | 18 | Standard |
| | Y | 89 | 400294.9 | 1.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 684225.8 | 0.8 | **250.0868** | 0.946 | 0.4 | ug/L | 94 | Standard |
| | Ba | 137 | 1168068.5 | 0.7 | **252.9551** | 1.416 | 0.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 494049.2 | 0.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 484127.7 | 0.4 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 440067.5 | 0.8 | **9.7307** | 0.050 | 0.5 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 6927.0 | 3.2 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2900.0 | 0.9 | **67.4222** | 1.661 | 2.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 19432.5 | 2.6 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 98.050 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 100.758 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 88.738 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-03 10X

Sample Date/Time: Wednesday, October 09, 2019 16:56:42
Report Date/Time: Thursday, October 10, 2019 11:42:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158977.7 | 0.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 47.0 | 11.1 | **0.8003** | 0.143 | 17.9 | ug/L | 15 | Standard |
| | Se | 78 | 1144.0 | 3.5 | **0.6861** | 0.277 | 40.4 | ug/L | 989 | Standard |
| | Br | 79 | 526.3 | 4.8 | | | | ug/L | 67 | Standard |
| | Se | 82 | 69.0 | 2.9 | **0.3424** | 0.023 | 6.6 | ug/L | 29 | Standard |
| | Kr | 83 | 125.0 | 18.5 | | | | ug/L | 18 | Standard |
| | Y | 89 | 422996.4 | 2.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 538358.3 | 0.6 | **190.6097** | 2.957 | 1.6 | ug/L | 94 | Standard |
| | Ba | 137 | 913799.0 | 0.7 | **191.6760** | 0.551 | 0.3 | ug/L | 169 | Standard |
| > | Tb | 159 | 510053.6 | 0.9 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 505711.1 | 0.9 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 450522.6 | 0.3 | **9.6495** | 0.113 | 1.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7476.3 | 2.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 757.0 | 3.5 | **16.2820** | 0.599 | 3.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 20310.4 | 2.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 106.389 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 104.022 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 95.775 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-04 10X**

Sample Date/Time: Wednesday, October 09, 2019 17:00:45
Report Date/Time: Thursday, October 10, 2019 11:42:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158379.9 | 1.7 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 56.7 | 8.2 | **1.0502** | 0.096 | 9.1 | ug/L | 15 | Standard |
| | Se | 78 | 1202.7 | 6.9 | **1.1539** | 0.520 | 45.1 | ug/L | 989 | Standard |
| | Br | 79 | 577.7 | 1.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 115.0 | 6.1 | **0.7598** | 0.079 | 10.4 | ug/L | 29 | Standard |
| | Kr | 83 | 118.7 | 19.4 | | | | ug/L | 18 | Standard |
| | Y | 89 | 414989.6 | 4.2 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 544377.8 | 0.6 | **192.0546** | 0.200 | 0.1 | ug/L | 94 | Standard |
| | Ba | 137 | 922146.4 | 0.4 | **192.7556** | 0.786 | 0.4 | ug/L | 169 | Standard |
| > | Tb | 159 | 511825.6 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 512695.0 | 1.0 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 816735.5 | 0.6 | **17.4807** | 0.037 | 0.2 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7389.9 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 2988.6 | 3.0 | **65.1012** | 1.790 | 2.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 19219.3 | 4.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 105.989 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.383 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 94.668 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-112-05 10X

Sample Date/Time: Wednesday, October 09, 2019 17:04:49
Report Date/Time: Thursday, October 10, 2019 11:42:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 156971.5 | 1.3 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 67.7 | 11.5 | **1.3496** | 0.222 | 16.4 | ug/L | 15 | Standard |
| | **Se** | 78 | 1244.4 | 4.5 | **1.5516** | 0.399 | 25.7 | ug/L | 989 | Standard |
| | **Br** | 79 | 634.3 | 3.4 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 148.7 | 6.9 | **1.0746** | 0.099 | 9.2 | ug/L | 29 | Standard |
| | **Kr** | 83 | 134.7 | 14.6 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 386149.4 | 3.8 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 579437.3 | 1.0 | **207.4032** | 1.475 | 0.7 | ug/L | 94 | Standard |
| | **Ba** | 137 | 983041.1 | 0.3 | **208.4854** | 1.845 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 504485.2 | 0.9 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 502465.2 | 0.9 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 671538.9 | 0.4 | **14.5725** | 0.071 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7358.6 | 1.3 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 4943.2 | 2.6 | **108.1570** | 2.932 | 2.7 | ug/L | 1 | KED |
| | **Y-1** | 89 | 18918.5 | 0.5 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 105.047 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 102.886 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 94.266 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 17:08:53
Report Date/Time: Thursday, October 10, 2019 11:42:35
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 168442.6 | 0.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 1699.1 | 5.0 | **40.4331** | 1.921 | 4.8 | ug/L | 15 | Standard |
| | **Se** | 78 | 7076.1 | 5.7 | **41.8981** | 2.884 | 6.9 | ug/L | 989 | Standard |
| | **Br** | 79 | 101.0 | 11.9 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 4625.4 | 2.1 | **38.8924** | 0.613 | 1.6 | ug/L | 29 | Standard |
| | **Kr** | 83 | 33.3 | 9.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 312526.9 | 2.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 106214.2 | 1.9 | **41.6973** | 0.669 | 1.6 | ug/L | 94 | Standard |
| | **Ba** | 137 | 178718.4 | 1.3 | **41.5676** | 0.374 | 0.9 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 459649.4 | 0.4 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 476864.4 | 1.2 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 1686111.2 | 0.5 | **40.2644** | 0.274 | 0.7 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7990.2 | 2.6 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 1898.1 | 1.6 | **38.2399** | 0.963 | 2.5 | ug/L | 1 | KED |
| | **Y-1** | 89 | 13833.7 | 3.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 112.723 |
| | 77 | Se | 101.083 | |
| | 78 | Se | 104.745 | |
| | 79 | Br | | |
| | 82 | Se | 97.231 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 104.243 | |
| | 137 | Ba | 103.919 | |
| > | 159 | Tb | | 93.742 |
| | 165 | Ho | | |
| | 208 | Pb | 100.661 | |
| > | 72 | Ge-1 | | 102.358 |
| | 75 | As-2 | 95.600 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 17:12:57
Report Date/Time: Thursday, October 10, 2019 11:42:38
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 177956.3 | 1.1 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 19.3 | 10.8 | 0.0429 | 0.052 | 121.4 | ug/L | 15 | Standard |
| | Se | 78 | 1203.4 | 4.8 | 0.1705 | 0.303 | 177.8 | ug/L | 989 | Standard |
| | Br | 79 | 89.7 | 4.5 | | | | ug/L | 67 | Standard |
| | Se | 82 | 37.3 | 17.8 | 0.0225 | 0.054 | 239.6 | ug/L | 29 | Standard |
| | Kr | 83 | 29.7 | 26.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 335173.3 | 5.1 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 138.3 | 9.4 | 0.0165 | 0.004 | 25.9 | ug/L | 94 | Standard |
| | Ba | 137 | 156.0 | 10.7 | -0.0029 | 0.003 | 113.6 | ug/L | 169 | Standard |
| > | Tb | 159 | 489671.5 | 1.4 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 508212.8 | 1.3 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2739.4 | 0.6 | 0.0004 | 0.001 | 270.7 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8342.1 | 2.8 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 4.3 | 35.3 | 0.0567 | 0.032 | 55.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 14830.4 | 1.8 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 119.090 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.865 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 106.866 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-112-06 10X**

Sample Date/Time: Wednesday, October 09, 2019 17:16:11
Report Date/Time: Thursday, October 10, 2019 11:42:40
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 159037.6 | 2.1 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 84.0 | 3.1 | **1.7422** | 0.107 | 6.1 | ug/L | 15 | Standard |
| | **Se** | 78 | 1255.7 | 5.7 | **1.5220** | 0.686 | 45.1 | ug/L | 989 | Standard |
| | **Br** | 79 | 550.7 | 6.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 180.3 | 18.2 | **1.3449** | 0.327 | 24.3 | ug/L | 29 | Standard |
| | **Kr** | 83 | 118.7 | 6.2 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 411909.4 | 1.0 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 522983.7 | 0.5 | **185.3132** | 2.645 | 1.4 | ug/L | 94 | Standard |
| | **Ba** | 137 | 891862.7 | 0.5 | **187.2405** | 2.909 | 1.6 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 509669.5 | 1.6 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 506960.0 | 1.0 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 761900.9 | 1.1 | **16.3731** | 0.088 | 0.5 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7494.0 | 3.8 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 5158.9 | 2.2 | **110.9258** | 4.457 | 4.0 | ug/L | 1 | KED |
| | **Y-1** | 89 | 19269.0 | 3.3 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 106.429 |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 103.943 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| > | 72 | Ge-1 | | 96.001 |
| | 75 | As-2 | | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-077-08 10X**

Sample Date/Time: Wednesday, October 09, 2019 17:20:14
Report Date/Time: Thursday, October 10, 2019 11:42:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | **Ge** | 72 | 158153.8 | 1.6 | | | | ug/L | 149430 | Standard |
| | **Se** | 77 | 122.3 | 2.1 | **2.7344** | 0.073 | 2.7 | ug/L | 15 | Standard |
| | **Se** | 78 | 1166.0 | 6.0 | **0.8927** | 0.429 | 48.0 | ug/L | 989 | Standard |
| | **Br** | 79 | 767.7 | 2.1 | | | | ug/L | 67 | Standard |
| | **Se** | 82 | 137.0 | 5.8 | **0.9586** | 0.062 | 6.5 | ug/L | 29 | Standard |
| | **Kr** | 83 | 147.3 | 15.0 | | | | ug/L | 18 | Standard |
| | **Y** | 89 | 449756.8 | 5.5 | | | | ug/L | 281096 | Standard |
| | **Ba** | 135 | 588576.1 | 1.5 | **201.2501** | 1.631 | 0.8 | ug/L | 94 | Standard |
| | **Ba** | 137 | 998041.1 | 2.3 | **202.1672** | 0.761 | 0.4 | ug/L | 169 | Standard |
| > | **Tb** | 159 | 528154.4 | 2.1 | | | | ug/L | 490334 | Standard |
| | **Ho** | 165 | 526931.5 | 0.5 | | | | ug/L | 511925 | Standard |
| | **Pb** | 208 | 587894.4 | 0.3 | **12.1795** | 0.291 | 2.4 | ug/L | 2724 | Standard |
| > | **Ge-1** | 72 | 7444.9 | 0.9 | | | | ug/L | 7806 | KED |
| | **As-2** | 75 | 5808.5 | 2.8 | **125.6186** | 3.798 | 3.0 | ug/L | 1 | KED |
| | **Y-1** | 89 | 22446.6 | 3.7 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 105.838 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.713 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 95.373 |
| | 75As-2 | | |
| | 89Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Wednesday, October 09, 2019 17:24:17
Report Date/Time: Thursday, October 10, 2019 11:42:44
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191009B.sam
Method File: C:\NexION Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164093.4 | 1.0 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 1724.1 | 1.1 | **42.1388** | 0.601 | 1.4 | ug/L | 15 | Standard |
| | Se | 78 | 6987.7 | 2.3 | **42.5776** | 1.138 | 2.7 | ug/L | 989 | Standard |
| | Br | 79 | 122.0 | 13.6 | | | | ug/L | 67 | Standard |
| | Se | 82 | 4634.4 | 0.7 | **40.0154** | 0.658 | 1.6 | ug/L | 29 | Standard |
| | Kr | 83 | 25.7 | 36.2 | | | | ug/L | 18 | Standard |
| | Y | 89 | 316804.5 | 1.5 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 105995.6 | 2.2 | **42.0007** | 1.208 | 2.9 | ug/L | 94 | Standard |
| | Ba | 137 | 175696.6 | 1.0 | **41.2442** | 0.715 | 1.7 | ug/L | 169 | Standard |
| > | Tb | 159 | 455465.7 | 0.7 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 473976.3 | 1.4 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 1670281.6 | 0.3 | **40.2537** | 0.341 | 0.8 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 7865.2 | 2.5 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1891.8 | 2.6 | **38.7060** | 0.365 | 0.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 13668.9 | 1.2 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 109.813 |
| | 77 | Se | 105.347 | |
| | 78 | Se | 106.444 | |
| | 79 | Br | | |
| | 82 | Se | 100.038 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 135 | Ba | 105.002 | |
| | 137 | Ba | 103.110 | |
| > | 159 | Tb | | 92.889 |
| | 165 | Ho | | |
| | 208 | Pb | 100.634 | |
| > | 72 | Ge-1 | | 100.756 |
| | 75 | As-2 | 96.765 | |
| | 89 | Y-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Wednesday, October 09, 2019 17:28:21
Report Date/Time: Thursday, October 10, 2019 11:42:46
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191009B.sam
Method File: C:\NexION\Data\Method\X191009B2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 176367.4 | 0.8 | | | | ug/L | 149430 | Standard |
| | Se | 77 | 16.7 | 36.7 | **-0.0152** | 0.138 | 909.0 | ug/L | 15 | Standard |
| | Se | 78 | 1267.4 | 3.9 | **0.6729** | 0.262 | 38.9 | ug/L | 989 | Standard |
| | Br | 79 | 86.7 | 16.3 | | | | ug/L | 67 | Standard |
| | Se | 82 | 35.7 | 22.7 | **0.0115** | 0.065 | 563.0 | ug/L | 29 | Standard |
| | Kr | 83 | 22.3 | 33.9 | | | | ug/L | 18 | Standard |
| | Y | 89 | 349671.6 | 2.6 | | | | ug/L | 281096 | Standard |
| | Ba | 135 | 120.0 | 10.4 | **0.0101** | 0.005 | 46.1 | ug/L | 94 | Standard |
| | Ba | 137 | 175.0 | 0.6 | **0.0016** | 0.000 | 17.5 | ug/L | 169 | Standard |
| > | Tb | 159 | 485440.2 | 0.5 | | | | ug/L | 490334 | Standard |
| | Ho | 165 | 500149.6 | 0.2 | | | | ug/L | 511925 | Standard |
| | Pb | 208 | 2686.4 | 1.3 | **-0.0002** | 0.001 | 238.6 | ug/L | 2724 | Standard |
| > | Ge-1 | 72 | 8195.7 | 1.7 | | | | ug/L | 7806 | KED |
| | As-2 | 75 | 1.3 | 114.6 | **-0.0011** | 0.030 | 2733.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 14467.7 | 2.1 | | | | ug/L | 12627 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 118.026 |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.002 |
| | 165Ho | | |
| | 208Pb | | |
| > | 72Ge-1 | | 104.990 |
| | 75As-2 | | |
| | 89Y-1 | | |

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 24, 2019

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 4296-008-01
Laboratory Reference No. 1910-222

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on October 16, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**Case Narrative**

Samples were collected on October 14 and 15, 2019 and received by the laboratory on October 16, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Total Metals EPA 6010D/6020B/7471B Analysis

Due to the high concentration of Iron and Manganese in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery for Iron was 96%. The Spike Blank recovery for Iron was 100%.

The duplicate RPD for Iron, Manganese, Arsenic, and Lead is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

The Matrix Spike/Matrix Spike Duplicate RPD for Iron is outside control limits due to matrix inhomogeneity. The samples were re-extracted and re-analyzed with similar results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR01-US-03-2-4"-CI** | | | | | |
| Laboratory ID: | 10-222-01 | | | | | |
| Arsenic | **100** | 1.4 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **110** | 1.4 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **14000** | 55 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **39** | 1.4 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **570** | 11 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **0.056** | 0.027 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **0.35** | 0.27 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **2.1** | 0.69 | EPA 6020B | 10-18-19 | 10-22-19 | |
| **Client ID:** | **SR02-US-01-0-2"-CI** | | | | | |
| Laboratory ID: | 10-222-02 | | | | | |
| Arsenic | **50** | 0.66 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **100** | 0.66 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **17000** | 53 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **36** | 0.66 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **360** | 11 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **0.050** | 0.026 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **0.53** | 0.26 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **4.5** | 0.66 | EPA 6020B | 10-18-19 | 10-22-19 | |
| **Client ID:** | **SR03-US-05-4-6"-CI** | | | | | |
| Laboratory ID: | 10-222-03 | | | | | |
| Arsenic | **40** | 0.70 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **89** | 0.70 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **16000** | 56 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **5.9** | 0.70 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **270** | 11 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **0.16** | 0.028 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **0.52** | 0.28 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **2.3** | 0.70 | EPA 6020B | 10-18-19 | 10-22-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR03-CS-04-02-CI** | | | | | |
| Laboratory ID: | 10-222-04 | | | | | |
| Arsenic | **69** | 0.65 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **40** | 0.65 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **8800** | 52 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **3.9** | 0.65 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **1.9** | 0.52 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **1.7** | 0.13 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **2.1** | 0.26 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **11** | 0.65 | EPA 6020B | 10-18-19 | 10-22-19 | |
| **Client ID:** | **SR08-US-04-2-4"-CI** | | | | | |
| Laboratory ID: | 10-222-05 | | | | | |
| Arsenic | **340** | 2.7 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **84** | 2.7 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **13000** | 53 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **35** | 2.7 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **94** | 11 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **0.099** | 0.027 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **5.3** | 0.27 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **21** | 0.67 | EPA 6020B | 10-18-19 | 10-22-19 | |
| **Client ID:** | **SR04-US-03-4-6"-CI** | | | | | |
| Laboratory ID: | 10-222-06 | | | | | |
| Arsenic | **150** | 1.4 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **80** | 1.4 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **19000** | 56 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **7.9** | 1.4 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **370** | 11 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **ND** | 0.028 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **ND** | 0.28 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **ND** | 0.70 | EPA 6020B | 10-18-19 | 10-22-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR05-US-04-4-6"-CI** | | | | | |
| Laboratory ID: | 10-222-07 | | | | | |
| Arsenic | **620** | 5.7 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **180** | 5.7 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Iron | **19000** | 57 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Lead | **6.6** | 0.29 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Manganese | **330** | 11 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Mercury | **0.092** | 0.029 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Selenium | **0.50** | 0.29 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Silver | **ND** | 0.72 | EPA 6020B | 10-18-19 | 10-22-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB1018SH1 | | | | | |
| Iron | **ND** | 2.5 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Manganese | **ND** | 0.50 | EPA 6010D | 10-18-19 | 10-18-19 | |
| Laboratory ID: | MB1018SM1 | | | | | |
| Arsenic | **ND** | 0.13 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Barium | **ND** | 0.13 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Lead | **ND** | 0.13 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Selenium | **ND** | 0.13 | EPA 6020B | 10-18-19 | 10-22-19 | |
| Laboratory ID: | MB1017S1 | | | | | |
| Mercury | **ND** | 0.025 | EPA 7471B | 10-17-19 | 10-17-19 | |
| Laboratory ID: | MB1018SH1 | | | | | |
| Silver | **ND** | 0.63 | EPA 6020B | 10-18-19 | 10-22-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | | Spike Level | | Source Result | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DUPLICATE** | | | | | | | | | | | |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Iron | **13100** | **16600** | NA | NA | | NA | | NA | 24 | 20 | K |
| Manganese | **522** | **643** | NA | NA | | NA | | NA | 21 | 20 | K |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| Arsenic | **91.8** | **154** | NA | NA | | NA | | NA | 51 | 20 | K |
| Barium | **99.8** | **108** | NA | NA | | NA | | NA | 8 | 20 | |
| Lead | **35.8** | **22.9** | NA | NA | | NA | | NA | 44 | 20 | K |
| Selenium | **0.318** | **0.353** | NA | NA | | NA | | NA | 11 | 20 | |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| Mercury | **0.0506** | **0.0623** | NA | NA | | NA | | NA | 21 | 20 | C |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Silver | **1.94** | **2.24** | NA | NA | | NA | | NA | 14 | 20 | |
| **MATRIX SPIKES** | | | | | | | | | | | |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Iron | **15100** | **20200** | 1000 | 1000 | 13100 | **200** | **710** | 75-125 | 29 | 20 | A,W |
| Manganese | **597** | **623** | 25.0 | 25.0 | 522 | **300** | **404** | 75-125 | 4 | 20 | A |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| Arsenic | **174** | **204** | 100 | 100 | 91.8 | **82** | **112** | 75-125 | 16 | 20 | |
| Barium | **191** | **205** | 100 | 100 | 99.8 | **91** | **105** | 75-125 | 7 | 20 | |
| Lead | **256** | **234** | 250 | 250 | 35.8 | **88** | **79** | 75-125 | 9 | 20 | |
| Selenium | **91.8** | **93.5** | 100 | 100 | 0.318 | **91** | **93** | 75-125 | 2 | 20 | |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| Mercury | **0.559** | **0.577** | 0.500 | 0.500 | 0.0506 | **102** | **105** | 80-120 | 3 | 20 | |
| Laboratory ID: | 10-222-01 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Silver | **25.9** | **26.0** | 25.0 | 25.0 | 1.94 | **96** | **96** | 75-125 | 0 | 20 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | ICV102219X | 0.0500 | 0.0515 | -3.0 | +/- 10% |
| Barium | ICV102219X | 0.0500 | 0.0547 | -9.4 | +/- 10% |
| Iron | ICV101819P | 1.00 | 1.00 | 0 | +/- 10% |
| Lead | ICV102219X | 0.0500 | 0.0511 | -2.2 | +/- 10% |
| Manganese | ICV101819P | 1.00 | 0.980 | 2.0 | +/- 10% |
| Mercury | ICV101719Y | 0.00500 | 0.00494 | 1.2 | +/- 10% |
| Selenium | ICV102219X | 0.0500 | 0.0498 | 0.40 | +/- 10% |
| Silver | ICV102219X | 0.0500 | 0.0480 | 4.0 | +/- 10% |
| Arsenic | LLV102219X | 0.000500 | 0.000509 | -1.8 | +/- 20% |
| Barium | LLV102219X | 0.000500 | 0.000489 | 2.2 | +/- 20% |
| Iron | LLV101819P | 0.0500 | 0.0468 | 6.4 | +/- 20% |
| Lead | LLV102219X | 0.000500 | 0.000468 | 6.4 | +/- 20% |
| Manganese | LLV101819P | 0.0100 | 0.0104 | -4.0 | +/- 20% |
| Selenium | LLV102219X | 0.000500 | 0.000434 | 13 | +/- 20% |
| Silver | LLV102219X | 0.000500 | 0.000462 | 7.6 | +/- 20% |
| Arsenic | CCV1102219X | 0.0400 | 0.0379 | 5.2 | +/- 10% |
| Barium | CCV1102219X | 0.0400 | 0.0392 | 2.0 | +/- 10% |
| Iron | CCV1101819P | 5.00 | 5.02 | -0.40 | +/- 10% |
| Lead | CCV1102219X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV1101819P | 1.00 | 0.977 | 2.3 | +/- 10% |
| Mercury | CCV1101719Y | 0.00500 | 0.00522 | -4.4 | +/- 20% |
| Selenium | CCV1102219X | 0.0400 | 0.0379 | 5.2 | +/- 10% |
| Silver | CCV1102219X | 0.0400 | 0.0380 | 5.0 | +/- 10% |
| Arsenic | CCV2102219X | 0.0400 | 0.0384 | 4.0 | +/- 10% |
| Barium | CCV2102219X | 0.0400 | 0.0391 | 2.3 | +/- 10% |
| Iron | CCV2101819P | 5.00 | 4.97 | 0.60 | +/- 10% |
| Lead | CCV2102219X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV2101819P | 1.00 | 0.966 | 3.4 | +/- 10% |
| Mercury | CCV2101719Y | 0.00500 | 0.00540 | -8.0 | +/- 20% |
| Selenium | CCV2102219X | 0.0400 | 0.0376 | 6.0 | +/- 10% |
| Silver | CCV2102219X | 0.0400 | 0.0380 | 5.0 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | CCV3102219X | 0.0400 | 0.0378 | 5.5 | +/- 10% |
| Barium | CCV3102219X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Iron | CCV3101819P | 5.00 | 4.99 | 0.20 | +/- 10% |
| Lead | CCV3102219X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV3101819P | 1.00 | 0.969 | 3.1 | +/- 10% |
| Mercury | CCV3101719Y | 0.00500 | 0.00518 | -3.6 | +/- 20% |
| Selenium | CCV3102219X | 0.0400 | 0.0383 | 4.3 | +/- 10% |
| Silver | CCV3102219X | 0.0400 | 0.0392 | 2.0 | +/- 10% |
| Arsenic | CCV4102219X | 0.0400 | 0.0383 | 4.3 | +/- 10% |
| Barium | CCV4102219X | 0.0400 | 0.0387 | 3.3 | +/- 10% |
| Iron | CCV4101819P | 5.00 | 4.98 | 0.40 | +/- 10% |
| Lead | CCV4102219X | 0.0400 | 0.0390 | 2.5 | +/- 10% |
| Manganese | CCV4101819P | 1.00 | 0.973 | 2.7 | +/- 10% |
| Mercury | CCV4101719Y | 0.00500 | 0.00530 | -6.0 | +/- 20% |
| Selenium | CCV4102219X | 0.0400 | 0.0371 | 7.3 | +/- 10% |
| Arsenic | CCV5102219X | 0.0400 | 0.0379 | 5.2 | +/- 10% |
| Barium | CCV5102219X | 0.0400 | 0.0396 | 1.0 | +/- 10% |
| Iron | CCV5101819P | 5.00 | 5.00 | 0 | +/- 10% |
| Lead | CCV5102219X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV5101819P | 1.00 | 0.973 | 2.7 | +/- 10% |
| Selenium | CCV5102219X | 0.0400 | 0.0369 | 7.8 | +/- 10% |
| Iron | CCV6101819P | 5.00 | 4.99 | 0.20 | +/- 10% |
| Manganese | CCV6101819P | 1.00 | 0.971 | 2.9 | +/- 10% |
| Iron | CCV7101819P | 5.00 | 5.02 | -0.40 | +/- 10% |
| Manganese | CCV7101819P | 1.00 | 0.978 | 2.2 | +/- 10% |
| Iron | CCV8101819P | 5.00 | 4.91 | 1.8 | +/- 10% |
| Manganese | CCV8101819P | 1.00 | 0.964 | 3.6 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 24, 2019
Samples Submitted: October 16, 2019
Laboratory Reference: 1910-222
Project: 4296-008-01

**% MOISTURE**

| Client ID | Lab ID | % Moisture | Date Analyzed |
|---|---|---|---|
| **SR01-US-03-2-4"-CI** | 10-222-01 | **9** | 10-17-19 |
| **SR02-US-01-0-2"-CI** | 10-222-02 | **5** | 10-17-19 |
| **SR03-US-05-4-6"-CI** | 10-222-03 | **11** | 10-17-19 |
| **SR03-CS-04-02-CI** | 10-222-04 | **4** | 10-17-19 |
| **SR08-US-04-2-4"-CI** | 10-222-05 | **6** | 10-17-19 |
| **SR04-US-03-4-6"-CI** | 10-222-06 | **11** | 10-17-19 |
| **SR05-US-04-4-6"-CI** | 10-222-07 | **13** | 10-17-19 |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

**Data Qualifiers and Abbreviations**

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

# Chain of Custody



12

**OnSite Environmental Inc.**
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers, Inc.
Project Number: 4296-008-01
Project Name: Interim Remedial Action Design + Remedial Action
Project Manager: Nick Rohrbach (nrohrbach@geoengineers.com)
Sampled by: Justin Orr (jorr@geoengineers.com)

**Turnaround Request (in working days)**
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days)
☐ _____ (other)

**Laboratory Number:** 10-222

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers |
|---|---|---|---|---|---|
| 1 | SR01-US-03-2-4"-CI | 10/14/19 | 1225 | S | 1 |
| 2 | SR02-US-01-0-2"-CI | | 1245 | | 1 |
| 3 | SR03-US-~~01-0-2~~ 05-4-6" DB -CI | | 1320 | | 1 |
| 4 | SR03-~~US~~ CS -04-02-CI | | 1330 | | 1 |
| 5 | SR08-US-04-2-4"-CI | | 1305 | | 1 |
| 6 | SR04-US-03-4-6"-CI | 10/15/19 | 0925 | | 1 |
| 7 | SR05-US-04-4-6"-CI | 10/15/19 | 0950 | | 1 |

| Lab ID | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Gx | NWTPH-Dx (☐ Acid / SG Clean-up) | Volatiles 8260C | Halogenated Volatiles 8260C | EDB EPA 8011 (Waters Only) | Semivolatiles 8270D/SIM (with low-level PAHs) | PAHs 8270D/SIM (low-level) | PCBs 8082A | Organochlorine Pesticides 8081B | Organophosphorus Pesticides 8270D/SIM | Chlorinated Acid Herbicides 8151A | Total RCRA Metals | Total MTCA Metals | TCLP Metals | HEM (oil and grease) 1664A | metals 6010/6020B/7471B* | | | | % Moisture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | X | | | | X |
| 2 | | | | | | | | | | | | | | | | | | X | | | | |
| 3 | | | | | | | | | | | | | | | | | | X | | | | |
| 4 | | | | | | | | | | | | | | | | | | X | | | | |
| 5 | | | | | | | | | | | | | | | | | | X | | | | |
| 6 | | | | | | | | | | | | | | | | | | X | | | | |
| 7 | | | | | | | | | | | | | | | | | | X | | | | |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | | GEI | 10/15/19 | 1600 |
| Received | | OSE | 10/16/19 | 1530 |
| Relinquished | | | | |
| Received | | | | |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Reviewed/Date | | |

**Comments/Special Instructions**
* Arsenic, barium, lead, iron, manganese, mercury, selenium, silver

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

# Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 4296-008-01

OnSite Project Number: 10-222

Initiated by: QMV

Date Initiated: 10/16/19

## 1.0 Cooler Verification

| | | | | |
|---|---|---|---|---|
| 1.1 Were there custody seals on the outside of the cooler? | Yes | (No) | N/A | 1 2 3 4 |
| 1.2 Were the custody seals intact? | Yes | No | (N/A) | 1 2 3 4 |
| 1.3 Were the custody seals signed and dated by last custodian? | Yes | No | (N/A) | 1 2 3 4 |
| 1.4 Were the samples delivered on ice or blue ice? | Yes | No | | 1 2 3 4 |
| 1.5 Were samples received between 0-6 degrees Celsius? | (Yes) | No | Temperature: 6 | |
| 1.6 Have shipping bills (if any) been attached to the back of this form? | (Yes) | N/A | | |
| 1.7 How were the samples delivered? | Client | Courier | (UPS/FedEx) | OSE Pickup Other |

## 2.0 Chain of Custody Verification

| | | | |
|---|---|---|---|
| 2.1 Was a Chain of Custody submitted with the samples? | (Yes) | No | 1 2 3 4 |
| 2.2 Was the COC legible and written in permanent ink? | (Yes) | No | 1 2 3 4 |
| 2.3 Have samples been relinquished and accepted by each custodian? | (Yes) | No | 1 2 3 4 |
| 2.4 Did the sample labels (ID, date, time, preservative) agree with COC? | (Yes) | (No) | 1 2 3 4 |
| 2.5 Were all of the samples listed on the COC submitted? | (Yes) | No | 1 2 3 4 |
| 2.6 Were any of the samples submitted omitted from the COC? | Yes | (No) | 1 2 3 4 |

## 3.0 Sample Verification

| | | | | |
|---|---|---|---|---|
| 3.1 Were any sample containers broken or compromised? | Yes | (No) | | 1 2 3 4 |
| 3.2 Were any sample labels missing or illegible? | Yes | (No) | | 1 2 3 4 |
| 3.3 Have the correct containers been used for each analysis requested? | (Yes) | No | | 1 2 3 4 |
| 3.4 Have the samples been correctly preserved? | Yes | No | (N/A) | 1 2 3 4 |
| 3.5 Are volatiles samples free from headspace and bubbles greater than 6mm? | Yes | No | (N/A) | 1 2 3 4 |
| 3.6 Is there sufficient sample submitted to perform requested analyses? | (Yes) | No | | 1 2 3 4 |
| 3.7 Have any holding times already expired or will expire in 24 hours? | Yes | (No) | | 1 2 3 4 |
| 3.8 Was method 5035A used? | Yes | No | (N/A) | 1 2 3 4 |
| 3.9 If 5035A was used, which sampling option was used (#1, 2, or 3). | # | | (N/A) | 1 2 3 4 |

**Explain any discrepancies:**

2.4) # 3) -VS-01-0-2"-Cl on COC
-VS-05-4-6"-Cl on lid

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

# RAW DATA

- Total Metals EPA 6010D/6020B/7471B

# Total Metals
# EPA 6010D/6020B/7471B Data

**Report Generated By CETAC QuickTrace**
**Analyst:** kmckinney
**Worksheet file:** C:\Program Files\QuickTrace\Worksheets\10 October 2019\Y191017S2.wsz
**Date Started:** 10/17/2019 2:56:40 PM
**Comment:**

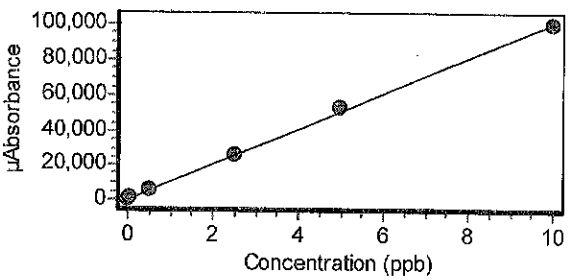
10-24-19
KDM

# *Results*

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| Calibration Blank | STD | 10/17/19 03:01:00 pm | 0.000 | 86 | 2.69 | |
| Standard 0.05 ppb | STD | 10/17/19 03:02:53 pm | 0.050 | 725 | 2.92 | |
| Standard 0.5 ppb | STD | 10/17/19 03:04:46 pm | 0.500 | 5314 | 1.24 | |
| Standard 2.5 ppb | STD | 10/17/19 03:06:39 pm | 2.500 | 26232 | 0.79 | |
| Standard 5.0 ppb | STD | 10/17/19 03:08:34 pm | 5.000 | 52561 | 1.17 | |
| Standard 10.0 ppb | STD | 10/17/19 03:10:29 pm | 10.000 | 100473 | 1.12 | |

Calibration

Equation: A = 86.124 + 10146.190C
R2: 0.99928
SEE: 1271.1880
Flags:




| | | | | | | |
|---|---|---|---|---|---|---|
| ICV<br>% Recovery 98.83 | ICV | 10/17/19 03:12:24 pm | 4.942 | 50224 | 1.04 | |
| ICB | ICB | 10/17/19 03:14:16 pm | -0.009 | -10 | 124.16 | |
| CCV<br>% Recovery 104.34 | CCV | 10/17/19 03:16:10 pm | 5.217 | 53020 | 1.01 | |
| CCB | CCB | 10/17/19 03:18:02 pm | -0.029 | -204 | 8.18 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| MB1017S1 | UNK | 10/17/19 03:19:53 pm | 0.029 | 377 | 3.79 | |
| SB1017S1 | UNK | 10/17/19 03:21:45 pm | 5.098 | 51815 | 1.34 | |
| 10-222-01 | UNK | 10/17/19 03:23:38 pm | 0.506 | 5218 | 0.83 | |
| 10-222-01 D | UNK | 10/17/19 03:25:31 pm | 0.623 | 6403 | 1.17 | |
| 10-222-01 L | UNK | 10/17/19 03:27:25 pm | 0.141 | 1522 | 1.04 | |
| 10-222-01 MS | UNK | 10/17/19 03:29:19 pm | 5.585 | 56753 | 0.16 | |
| 10-222-01 MSD | UNK | 10/17/19 03:31:13 pm | 5.769 | 58623 | 0.88 | |
| 10-222-02 | UNK | 10/17/19 03:33:08 pm | 0.479 | 4946 | 0.84 | |
| 10-222-03 | UNK | 10/17/19 03:34:59 pm | 1.401 | 14296 | 1.12 | |
| 10-222-04 | UNK | 10/17/19 03:36:51 pm | 15.223 | 154542 | 1.17 | O |
| CCV | CCV | 10/17/19 03:38:45 pm | 5.396 | 54831 | 0.86 | |
| % Recovery 107.91 | | | | | | |
| CCB | CCB | 10/17/19 03:40:37 pm | -0.019 | -107 | 12.45 | |
| 10-222-05 | UNK | 10/17/19 03:42:29 pm | 0.930 | 9524 | 4.12 | |
| 10-222-06 | UNK | 10/17/19 03:44:22 pm | 0.164 | 1747 | 1.36 | |
| 10-222-07 | UNK | 10/17/19 03:46:15 pm | 0.800 | 8199 | 1.18 | |
| CCV | CCV | 10/17/19 03:48:09 pm | 5.178 | 52620 | 0.93 | |
| % Recovery 103.55 | | | | | | |
| CCB | CCB | 10/17/19 03:50:01 pm | -0.006 | 29 | 85.80 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| 10-222-01 L | UNK | 10/17/19 03:58:00 pm | 0.107 | 1174 | 2.47 | |
| 10-222-04 x5 | UNK | 10/17/19 03:59:54 pm | 3.300 | 33574 | 1.75 | |
| CCV | CCV | 10/17/19 04:01:48 pm | 5.296 | 53821 | 2.07 | |
| % Recovery 105.92 | | | | | | |
| CCB | CCB | 10/17/19 04:05:39 pm | 0.003 | 115 | 3.50 | |

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | MB1018SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | SB10-18SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-242-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-242-01 D | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-242-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-242-01 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | 10-242-01 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 17 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 18 | 10-242-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-242-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-244-01a | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-244-02a | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 24 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 25 | MB1018SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | SB1018SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-222-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 28 | 10-222-01 D | Samp | 1.0000 | 1.00 | 1.00 |
| 29 | 10-222-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 30 | 10-222-01 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | 10-222-01 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 32 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 33 | 10-222-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-222-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 36 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 37 | 10-222-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-222-05 | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | 10-222-06 | Samp | 1.0000 | 1.00 | 1.00 |
| 40 | 10-222-07 | Samp | 1.0000 | 1.00 | 1.00 |
| 41 | 10-202-01,02(1018SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 42 | MB1018SM2 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | SB10-18SM2 | Samp | 1.0000 | 1.00 | 1.00 |
| 44 | 10-242-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 45 | 10-242-01 D | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-242-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 48 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 49 | 10-242-01 MS | Samp | 1.0000 | 1.00 | 1.00 |

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 50 | 10-242-01 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 51 | 10-242-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 52 | 10-242-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 53 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 54 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 55 | 10-244-01a | Samp | 1.0000 | 1.00 | 1.00 |
| 56 | 10-244-02a | Samp | 1.0000 | 1.00 | 1.00 |
| 57 | 10-202-01,02 | Samp | 1.0000 | 1.00 | 1.00 |
| 58 | 10-222-01 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 59 | 10-222-01 D X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 60 | 10-222-01 L | Samp | 1.0000 | 1.00 | 1.00 |

Rack: 2 Type: 12 x 150 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Blank | Blk | 1.0000 | 1.00 | 1.00 |
| 2 | Standard 6 | Std | 1.0000 | 1.00 | 1.00 |
| 3 | Standard 5 | Std | 1.0000 | 1.00 | 1.00 |
| 4 | Standard 4 | Std | 1.0000 | 1.00 | 1.00 |
| 5 | Standard 3 | Std | 1.0000 | 1.00 | 1.00 |
| 6 | Standard 2 | Std | 1.0000 | 1.00 | 1.00 |
| 7 | Standard 1 | Std | 1.0000 | 1.00 | 1.00 |
| 8 | Standard 7 | Std | 1.0000 | 1.00 | 1.00 |

Rack: 3 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | 10-222-01 MS X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 2 | 10-222-01 MSD X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 3 | 10-222-02 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | 10-222-03 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 6 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 7 | 10-222-04 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | 10-222-05 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | 10-222-06 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-222-07 X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-253-01(1018SM2) | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-253-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-253-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | 10-253-04 | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | 10-253-05 | Samp | 1.0000 | 1.00 | 1.00 |
| 16 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 17 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 18 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 19 | 10-259-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-259-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-259-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 24 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 25 | | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | | Samp | 1.0000 | 1.00 | 1.00 |

 KH 10/23/19 

**Blank (Blk)** **10/18/2019, 9:36:17 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.003 | -0.002 | -0.001 |
| Mn 257.610 | -0.000 | 0.000 | 0.000 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 0.000 | ppb | 2.570 | 36.2 | 7.096 |
| Mn 257.610 | 0.000 | ppb | 2.073 | 82.2 | 2.523 |

**Standard 5 (Std)** **10/18/2019, 9:40:36 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.055 | 0.052 | 0.055 |
| Mn 257.610 | 0.010 | 0.011 | 0.010 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 50.000 | ppb | 1.562 | 2.8 | 55.257 |
| Mn 257.610 | 10.000 | ppb | 0.348 | 0.3 | 125.37 |

**Standard 4 (Std)** **10/18/2019, 10:08:55 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.510 | 0.514 | 0.514 |
| Mn 257.610 | 0.104 | 0.105 | 0.104 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 500.00 | ppb | 2.189 | 0.5 | 464.12 |
| Mn 257.610 | 100.00 | ppb | 3.263 | 0.3 | 1228.2 |

**Standard 3 (Std)** **10/18/2019, 10:13:13 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 5.032 | 5.112 | 5.085 |
| Mn 257.610 | 0.987 | 0.988 | 0.988 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 5000.0 | ppb | 36.218 | 0.8 | 4531.4 |
| Mn 257.610 | 1000.0 | ppb | 10.945 | 0.1 | 11575 |

**Standard 2 (Std)** **10/18/2019, 10:17:32 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 12.508 | 12.716 | 12.720 |
| Mn 257.610 | 2.478 | 2.516 | 2.520 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 12500 | ppb | 108.138 | 1.0 | 11280 |
| Mn 257.610 | 2500.0 | ppb | 274.628 | 0.9 | 29353 |

P191018F1. All Data Report 10/23/2019, 11:47:30 AM

**Standard 1 (Std)** **10/18/2019, 10:21:50 AM** **Rack 2, Tube 7**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 24.870 | 24.934 | 24.927 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 25000 | ppb | 31.064 | 0.1 | 22209 |

**Fe 259.940 Calibration (ppm)** **10/18/2019, 10:21:50 AM** **Correlation Coefficient: 0.999970**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 7.096 | 0.000 | 0.000 | - | - |
| Standard 5 (mm6_084-04) | | 55.257 | 0.050 | 0.054 | 0.004 | 8.1 |
| Standard 4 (mm6_084-05) | | 464.12 | 0.500 | 0.513 | 0.013 | 2.6 |
| Standard 3 (mm6_084-02) | | 4531.4 | 5.000 | 5.076 | 0.076 | 1.5 |
| Standard 2 (mm6_083-02) | | 11280 | 12.500 | 12.648 | 0.148 | 1.2 |
| Standard 1 (mm6_084-01) | | 22209 | 25.000 | 24.910 | -0.090 | -0.4 |

Curve Type: Linear Equation: y = 891.3 x + 7.1

**Mn 257.610 Calibration (ppm)** **10/18/2019, 10:17:32 AM** **Correlation Coefficient: 0.999979**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 2.523 | 0.000 | 0.000 | - | - |
| Standard 5 | | 125.37 | 0.010 | 0.010 | 0.000 | 4.8 |
| Standard 4 | | 1228.2 | 0.100 | 0.105 | 0.005 | 4.6 |
| Standard 3 | | 11575 | 1.000 | 0.988 | -0.012 | -1.2 |
| Standard 2 | | 29353 | 2.500 | 2.505 | 0.005 | 0.2 |

Curve Type: Linear Equation: y = 11717.9 x + 2.5

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Fe 259.940 | 0.000 | ppb | 10/18/2019, 9:36:17 AM |
| | Mn 257.610 | 0.000 | ppb | |
| Standard 5 | Fe 259.940 | 50.000 | ppb | 10/18/2019, 9:40:36 AM |
| | Mn 257.610 | 10.000 | ppb | |
| Standard 4 | Fe 259.940 | 500.00 | ppb | 10/18/2019, 10:08:55 AM |
| | Mn 257.610 | 100.00 | ppb | |
| Standard 3 | Fe 259.940 | 5000.0 | ppb | 10/18/2019, 10:13:13 AM |
| | Mn 257.610 | 1000.0 | ppb | |
| Standard 2 | Fe 259.940 | 12500 | ppb | 10/18/2019, 10:17:32 AM |
| | Mn 257.610 | 2500.0 | ppb | |
| Standard 1 | Fe 259.940 | 25000 | ppb | 10/18/2019, 10:21:50 AM |
| Initial Calib Verif | Fe 259.940 | 999.93 | ppb | 10/18/2019, 10:37:26 AM |
| | Mn 257.610 | 979.56 | ppb | |
| Initial Calib Blank | Fe 259.940 | 17.324 | ppb | 10/18/2019, 10:43:21 AM |
| | Mn 257.610 | 0.135uv | ppb | |
| LLV | Fe 259.940 | 46.830 | ppb | 10/18/2019, 11:07:15 AM |
| | Mn 257.610 | 10.438 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5021.8 | ppb | 10/18/2019, 11:12:23 AM |
| | Mn 257.610 | 976.92 | ppb | |
| Cont Calib Blank | Fe 259.940 | 34.135 | ppb | 10/18/2019, 11:16:44 AM |
| | Mn 257.610 | 0.115uv | ppb | |
| ICSA | Fe 259.940 | 154967x | ppb | 10/18/2019, 11:21:03 AM |
| | Mn 257.610 | 0.275uv | ppb | |
| ICSAB | Fe 259.940 | 150796x | ppb | 10/18/2019, 11:25:42 AM |
| | Mn 257.610 | 443.59 | ppb | |
| MB1018SM1 | Fe 259.940 | 13.912 | ppb | 10/18/2019, 11:32:21 AM |
| | Mn 257.610 | 0.708 | ppb | |
| SB10-18SM1 | Fe 259.940 | 264.85 | ppb | 10/18/2019, 11:36:42 AM |
| | Mn 257.610 | 4.887 | ppb | |
| 10-242-01 | Fe 259.940 | 186725x | ppb | 10/18/2019, 11:41:03 AM |
| | Mn 257.610 | 4441.1 | ppb | |
| 10-242-01 D | Fe 259.940 | 206529x | ppb | 10/18/2019, 11:45:22 AM |
| | Mn 257.610 | 4422.2 | ppb | |
| 10-242-01 L | Fe 259.940 | 41088 | ppb | 10/18/2019, 11:49:42 AM |
| | Mn 257.610 | 871.56 | ppb | |

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| 10-242-01 MS | Fe 259.940 | 195116x | ppb | 10/18/2019, 11:54:02 AM |
| | Mn 257.610 | 4351.0 | ppb | |
| 10-242-01 MSD | Fe 259.940 | 222752x | ppb | 10/18/2019, 11:58:21 AM |
| | Mn 257.610 | 4342.9 | ppb | |
| BLK | Fe 259.940 | 97.362 | ppb | 10/18/2019, 12:02:42 PM |
| | Mn 257.610 | 2.107 | ppb | |
| Cont Calib Verif | Fe 259.940 | 4973.2 | ppb | 10/18/2019, 12:07:01 PM |
| | Mn 257.610 | 966.19 | ppb | |
| Cont Calib Blank | Fe 259.940 | 6.764 | ppb | 10/18/2019, 12:11:23 PM |
| | Mn 257.610 | 0.109 | ppb | |
| 10-242-02 | Fe 259.940 | 192293x | ppb | 10/18/2019, 12:16:55 PM |
| | Mn 257.610 | 4416.2 | ppb | |
| 10-242-03 | Fe 259.940 | 178723x | ppb | 10/18/2019, 12:21:16 PM |
| | Mn 257.610 | 4109.9 | ppb | |
| 10-244-01a | Fe 259.940 | 172933x | ppb | 10/18/2019, 12:25:36 PM |
| | Mn 257.610 | 3979.4 | ppb | |
| 10-244-02a | Fe 259.940 | 200096x | ppb | 10/18/2019, 12:29:56 PM |
| | Mn 257.610 | 4545.1 | ppb | |
| BLK | Fe 259.940 | 65.333 | ppb | 10/18/2019, 12:36:24 PM |
| | Mn 257.610 | 1.510 | ppb | |
| Cont Calib Verif | Fe 259.940 | 4988.7 | ppb | 10/18/2019, 12:40:43 PM |
| | Mn 257.610 | 968.80 | ppb | |
| Cont Calib Blank | Fe 259.940 | 18.861 | ppb | 10/18/2019, 12:45:01 PM |
| | Mn 257.610 | 0.213 | ppb | |
| MB1018SH1 | Fe 259.940 | 14.990 | ppb | 10/18/2019, 12:53:14 PM |
| | Mn 257.610 | 1.482 | ppb | |
| SB1018SH1 | Fe 259.940 | 19091 | ppb | 10/18/2019, 12:57:34 PM |
| | Mn 257.610 | 497.72 | ppb | |
| 10-222-01 | Fe 259.940 | 223330x | ppb | 10/18/2019, 1:01:56 PM |
| | Mn 257.610 | 8511.3 | ppb | |
| 10-222-01 D | Fe 259.940 | 277130x | ppb | 10/18/2019, 1:06:17 PM |
| | Mn 257.610 | 10719x | ppb | |
| 10-222-01 L | Fe 259.940 | 48309 | ppb | 10/18/2019, 1:10:38 PM |
| | Mn 257.610 | 1844.5 | ppb | |
| 10-222-01 MS | Fe 259.940 | 246288x | ppb | 10/18/2019, 1:15:00 PM |

P191018F1. Mean Only Report 10/23/2019, 11:42:01 AM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| | Mn 257.610 | 9468.0 | ppb | |
| 10-222-01 MSD | Fe 259.940 | 324985x | ppb | 10/18/2019, 1:19:18 PM |
| | Mn 257.610 | 9843.3 | ppb | |
| BLK | Fe 259.940 | 129.03 | ppb | 10/18/2019, 1:23:37 PM |
| | Mn 257.610 | 4.648 | ppb | |
| 10-222-02 | Fe 259.940 | 255864x | ppb | 10/18/2019, 1:27:56 PM |
| | Mn 257.610 | 5393.0 | ppb | |
| 10-222-03 | Fe 259.940 | 242484x | ppb | 10/18/2019, 1:32:16 PM |
| | Mn 257.610 | 4608.3 | ppb | |
| Cont Calib Verif | Fe 259.940 | 4981.4 | ppb | 10/18/2019, 1:36:36 PM |
| | Mn 257.610 | 973.12 | ppb | |
| Cont Calib Blank | Fe 259.940 | 7.851 | ppb | 10/18/2019, 1:40:59 PM |
| | Mn 257.610 | 0.261 | ppb | |
| 10-222-04 | Fe 259.940 | 145146x | ppb | 10/18/2019, 1:51:18 PM |
| | Mn 257.610 | 37.057 | ppb | |
| 10-222-05 | Fe 259.940 | 202468x | ppb | 10/18/2019, 1:55:38 PM |
| | Mn 257.610 | 1630.0 | ppb | |
| 10-222-06 | Fe 259.940 | 274858x | ppb | 10/18/2019, 1:59:57 PM |
| | Mn 257.610 | 5325.4 | ppb | |
| 10-222-07 | Fe 259.940 | 277965x | ppb | 10/18/2019, 2:04:17 PM |
| | Mn 257.610 | 4606.4 | ppb | |
| 10-202-01,02(1018SM1 | Fe 259.940 | 190730x | ppb | 10/18/2019, 2:08:35 PM |
| | Mn 257.610 | 2726.4 | ppb | |
| MB1018SM2 | Fe 259.940 | 40.877 | ppb | 10/18/2019, 2:41:40 PM |
| | Mn 257.610 | 1.126 | ppb | |
| SB10-18SM2 | Fe 259.940 | 12.975 | ppb | 10/18/2019, 2:45:58 PM |
| | Mn 257.610 | 1.215 | ppb | |
| 10-242-01 | Fe 259.940 | 217343x | ppb | 10/18/2019, 2:50:18 PM |
| | Mn 257.610 | 4739.4 | ppb | |
| 10-242-01 D | Fe 259.940 | 232737x | ppb | 10/18/2019, 2:54:40 PM |
| | Mn 257.610 | 4393.3 | ppb | |
| 10-242-01 L | Fe 259.940 | 49642 | ppb | 10/18/2019, 2:59:01 PM |
| | Mn 257.610 | 963.51 | ppb | |
| Cont Calib Verif | Fe 259.940 | 4999.2 | ppb | 10/18/2019, 3:03:20 PM |
| | Mn 257.610 | 972.75 | ppb | |

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Cont Calib Blank | Fe 259.940 | 10.018 | ppb | 10/18/2019, 3:07:40 PM |
| | Mn 257.610 | 0.117 | ppb | |
| 10-242-01 MS | Fe 259.940 | 219088x | ppb | 10/18/2019, 3:14:03 PM |
| | Mn 257.610 | 4553.5 | ppb | |
| 10-242-01 MSD | Fe 259.940 | 200504x | ppb | 10/18/2019, 3:18:23 PM |
| | Mn 257.610 | 4360.6 | ppb | |
| 10-242-02 | Fe 259.940 | 211031x | ppb | 10/18/2019, 3:22:40 PM |
| | Mn 257.610 | 4610.4 | ppb | |
| 10-242-03 | Fe 259.940 | 194055x | ppb | 10/18/2019, 3:26:59 PM |
| | Mn 257.610 | 4196.6 | ppb | |
| Cont Calib Verif | Fe 259.940 | 4989.7 | ppb | 10/18/2019, 3:32:24 PM |
| | Mn 257.610 | 971.14 | ppb | |
| Cont Calib Blank | Fe 259.940 | 18.540 | ppb | 10/18/2019, 3:36:45 PM |
| | Mn 257.610 | 0.505 | ppb | |
| 10-244-01a | Fe 259.940 | 217572x | ppb | 10/18/2019, 3:42:16 PM |
| | Mn 257.610 | 4677.1 | ppb | |
| 10-244-02a | Fe 259.940 | 235658x | ppb | 10/18/2019, 3:46:36 PM |
| | Mn 257.610 | 4340.5 | ppb | |
| 10-202-01,02 | Fe 259.940 | 185748x | ppb | 10/18/2019, 3:50:56 PM |
| | Mn 257.610 | 2790.0 | ppb | |
| 10-222-01 X 20 | Fe 259.940 | 13147 | ppb | 10/18/2019, 4:14:40 PM |
| | Mn 257.610 | 521.50 | ppb | |
| 10-222-01 D X 20 | Fe 259.940 | 16629 | ppb | 10/18/2019, 4:18:59 PM |
| | Mn 257.610 | 642.66 | ppb | |
| 10-222-01 L | Fe 259.940 | 2694.7 | ppb | 10/18/2019, 4:23:18 PM |
| | Mn 257.610 | 103.33 | ppb | |
| 10-222-01 MS X 20 | Fe 259.940 | 15127 | ppb | 10/18/2019, 4:27:38 PM |
| | Mn 257.610 | 597.14 | ppb | |
| 10-222-01 MSD X 20 | Fe 259.940 | 20245 | ppb | 10/18/2019, 4:31:58 PM |
| | Mn 257.610 | 622.89 | ppb | |
| 10-222-02 X 20 | Fe 259.940 | 15850 | ppb | 10/18/2019, 4:36:18 PM |
| | Mn 257.610 | 340.11 | ppb | |
| 10-222-03 X 20 | Fe 259.940 | 14186 | ppb | 10/18/2019, 4:40:40 PM |
| | Mn 257.610 | 244.16 | ppb | |

P191018F1. Mean Only Report 10/23/2019, 11:42:01 AM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Cont Calib Verif | Fe 259.940 | 5018.5 | ppb | 10/18/2019, 4:47:14 PM |
| | Mn 257.610 | 978.05 | ppb | |
| Cont Calib Blank | Fe 259.940 | 9.066 | ppb | 10/18/2019, 4:51:34 PM |
| | Mn 257.610 | 0.117uv | ppb | |
| 10-222-04 X 20 | Fe 259.940 | 8412.1 | ppb | 10/18/2019, 4:58:43 PM |
| | Mn 257.610 | 2.098 | ppb | |
| 10-222-05 X 20 | Fe 259.940 | 11969 | ppb | 10/18/2019, 5:03:01 PM |
| | Mn 257.610 | 88.240 | ppb | |
| 10-222-06 X 20 | Fe 259.940 | 16894 | ppb | 10/18/2019, 5:07:19 PM |
| | Mn 257.610 | 332.82 | ppb | |
| 10-222-07 X 20 | Fe 259.940 | 16941 | ppb | 10/18/2019, 5:11:38 PM |
| | Mn 257.610 | 286.47 | ppb | |
| 10-253-01(1018SM2) | Fe 259.940 | 229560x | ppb | 10/18/2019, 5:15:58 PM |
| | Mn 257.610 | 7021.1 | ppb | |
| 10-253-02 | Fe 259.940 | 193311x | ppb | 10/18/2019, 5:21:41 PM |
| | Mn 257.610 | 7844.2 | ppb | |
| 10-253-03 | Fe 259.940 | 224883x | ppb | 10/18/2019, 5:26:01 PM |
| | Mn 257.610 | 7841.4 | ppb | |
| 10-253-04 | Fe 259.940 | 194646x | ppb | 10/18/2019, 5:30:22 PM |
| | Mn 257.610 | 7181.3 | ppb | |
| 10-253-05 | Fe 259.940 | 183860x | ppb | 10/18/2019, 5:34:42 PM |
| | Mn 257.610 | 5031.7 | ppb | |
| BLK | Fe 259.940 | 85.681 | ppb | 10/18/2019, 5:39:02 PM |
| | Mn 257.610 | 2.910 | ppb | |
| Cont Calib Verif | Fe 259.940 | 4914.9 | ppb | 10/18/2019, 5:43:21 PM |
| | Mn 257.610 | 963.65 | ppb | |
| Cont Calib Blank | Fe 259.940 | 22.815 | ppb | 10/18/2019, 5:47:41 PM |
| | Mn 257.610 | 0.938 | ppb | |

# Dataset Report

10-22-19
KPM

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexION Data\DataSet\X191022B\
Report Date/Time: Tuesday, October 22, 2019 12:45:26

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| | Blank | 08:57:59 Tue 22-O | Blank | C:\NexION Data\DataSet\X191022B\Blank.001 | |
| | Standard 2 | 09:01:11 Tue 22-O | Standard #2 | C:\NexION Data\DataSet\X191022B\Standard 2.002 | |
| | Standard 3 | 09:04:23 Tue 22-O | Standard #3 | C:\NexION Data\DataSet\X191022B\Standard 3.003 | |
| | Standard 5 | 09:07:35 Tue 22-O | Standard #5 | C:\NexION Data\DataSet\X191022B\Standard 5.004 | |
| | Standard 6 | 09:10:47 Tue 22-O | Standard #6 | C:\NexION Data\DataSet\X191022B\Standard 6.005 | |
| | Standard 7 | 09:13:58 Tue 22-O | Standard #7 | C:\NexION Data\DataSet\X191022B\Standard 7.006 | |
| | QC Std 1 | 09:18:00 Tue 22-O | QC Std #1 | C:\NexION Data\DataSet\X191022B\QC Std 1.007 | |
| | QC Std 2 | 09:22:01 Tue 22-O | QC Std #2 | C:\NexION Data\DataSet\X191022B\QC Std 2.008 | |
| | QC Std 3 | 09:25:13 Tue 22-O | QC Std #3 | C:\NexION Data\DataSet\X191022B\QC Std 3.009 | |
| | QC Std 4 | 09:29:14 Tue 22-O | QC Std #4 | C:\NexION Data\DataSet\X191022B\QC Std 4.010 | |
| | QC Std 6 | 09:33:15 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022B\QC Std 6.011 | |
| | QC Std 8 | 09:37:17 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022B\QC Std 8.012 | |
| | ICSA | 09:40:28 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\ICSA.013 | |
| | ICSAB | 09:44:28 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\ICSAB.014 | |
| | MB1017SM1 5X | 09:48:47 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\MB1017SM1 5X.015 | |
| | SB1017SM1 50X | 09:52:47 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\SB1017SM1 50X.016 | |
| | 10-222-01 10X | 09:56:47 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01 10X.017 | |
| | 10-222-01D 10X | 10:00:47 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01D 10X.018 | |
| | 10-222-01L 50X | 10:04:47 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01L 50X.019 | |
| | 10-222-01MS 50X | 10:08:48 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01MS 50X.020 | |
| | 10-222-01MSD 50X | 10:12:49 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01MSD 50X.021 | |
| | 10-222-01PS 10X | 10:16:50 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01PS 10X.022 | |
| | QC Std 6 | 10:20:52 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022B\QC Std 6.023 | |
| | QC Std 8 | 10:24:53 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022B\QC Std 8.024 | |
| | 10-222-01 50X | 10:32:52 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01 50X.025 | |
| | 10-222-01D 50X | 10:36:52 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01D 50X.026 | |
| | 10-222-01L 250X | 10:40:53 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01L 250X.027 | |
| | 10-222-01MS 100X | 10:44:54 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01MS 100X.028 | |
| | 10-222-01MSD 100X | 10:48:54 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01MSD 100X.029 | |
| | 10-222-01PS 50X | 10:52:55 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01PS 50X.030 | |
| | 10-222-02 10X | 10:56:55 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-02 10X.031 | |
| | 10-222-03 10X | 11:00:54 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-03 10X.032 | |
| | 10-222-04 10X | 11:04:55 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-04 10X.033 | |
| | 10-222-05 10X | 11:08:56 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-05 10X.034 | |
| | QC Std 6 | 11:12:57 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022B\QC Std 6.035 | |
| | QC Std 8 | 11:16:58 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022B\QC Std 8.036 | |
| | 10-222-06 10X | 11:21:32 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-06 10X.037 | |
| | 10-222-07 10X | 11:25:33 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-07 10X.038 | |
| | MB1018SH1 25X | 11:29:34 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\MB1018SH1 25X.039 | |
| | SB1018SH1 50X | 11:33:34 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\SB1018SH1 50X.040 | |
| | 10-222-01 50X | 11:37:35 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01 50X.041 | |
| | 10-222-01D 50X | 11:41:35 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01D 50X.042 | |
| | 10-222-01L 250X | 11:47:24 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01L 250X.043 | |
| | 10-222-01MS 100X | 11:51:24 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01MS 100X.044 | |
| | 10-222-01MSD 100X | 11:55:24 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01MSD 100X.045 | |
| | 10-222-01PS 50X | 11:59:24 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-01PS 50X.046 | |
| | QC Std 6 | 12:03:24 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022B\QC Std 6.047 | |
| | QC Std 8 | 12:07:26 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022B\QC Std 8.048 | |
| | 10-222-02 25X 17SM1 | 12:15:22 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-02 25X 17SM1.049 | |
| | 10-222-03 25X | 12:19:24 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022B\10-222-03 25X.050 | |

| | | |
|---|---|---|
| 10-222-04 25X | 12:23:25 Tue 22-OSample | C:\NexION Data\DataSet\X191022B\10-222-04 25X.051 |
| 10-222-05 100X | 12:27:26 Tue 22-OSample | C:\NexION Data\DataSet\X191022B\10-222-05 100X.052 |
| 10-222-06 50X | 12:31:26 Tue 22-OSample | C:\NexION Data\DataSet\X191022B\10-222-06 50X.053 |
| 10-222-07 200X | 12:35:27 Tue 22-OSample | C:\NexION Data\DataSet\X191022B\10-222-07 200X.054 |
| QC Std 6 | 12:39:28 Tue 22-OQC Std #6 | C:\NexION Data\DataSet\X191022B\QC Std 6.055 |
| QC Std 8 | 12:43:29 Tue 22-OQC Std #8 | C:\NexION Data\DataSet\X191022B\QC Std 8.056 |

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/22/2019 7:10:45 AM
End Time: 10/22/2019 7:13:04 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 7445.81
Obtained Intensity (Mg 23.985): 38406.88
Obtained Intensity (In 114.904): 50054.84
Obtained Intensity (U 238.05): 46855.45
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=894.56 / 40837.03)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=164.87 / 40837.03)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/22/2019 7:10:45 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 7445.81
Obtained Intensity (Mg 23.985): 38406.88
Obtained Intensity (In 114.904): 50054.84
Obtained Intensity (U 238.05): 46855.45
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=894.56 / 40837.03)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=164.87 / 40837.03)

[Passed] Optimum value(s): N/A

End Time: 10/22/2019 7:13:04 AM

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Tuesday, October 22, 2019 07:13:41
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191022A\Daily Performance Check.006
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 6779.2 | 6779.209 | 158.965 | 2.3 | Standard |
| | Mg | 24.0 | 34764.6 | 34764.580 | 1522.362 | 4.4 | Standard |
| | In | 114.9 | 48132.6 | 48132.634 | 793.417 | 1.6 | Standard |
| | U | 238.1 | 45802.4 | 45802.385 | 628.283 | 1.4 | Standard |
| ⌈ | CeO | 155.9 | 851.0 | 0.021 | 0.001 | 2.9 | Standard |
| \|> | Ce | 139.9 | 39768.4 | 39768.421 | 619.715 | 1.6 | Standard |
| ⌊ | Ce++ | 70.0 | 139.9 | 0.004 | 0.000 | 8.4 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 1.02 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 1.02 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/22/2019 7:13:40 AM
End Time: 10/22/2019 7:16:00 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 6779.21
Obtained Intensity (Mg 23.985): 34764.58
Obtained Intensity (In 114.904): 48132.63
Obtained Intensity (U 238.05): 45802.39
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=851.03 / 39768.42)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=139.93 / 39768.42)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/22/2019 7:13:40 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 6779.21
Obtained Intensity (Mg 23.985): 34764.58
Obtained Intensity (In 114.904): 48132.63
Obtained Intensity (U 238.05): 45802.39
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=851.03 / 39768.42)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=139.93 / 39768.42)

[Passed] Optimum value(s): N/A

End Time: 10/22/2019 7:16:00 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexION\Data\MassCal\Default.tun
Acq. Date/Time: 07:20:33 Tue 22-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 6.975 | 1207 | 2081 | 0.702 | |
| Mg | 23.985 | 23.975 | 4602 | 2083 | 0.705 | |
| In | 114.904 | 114.875 | 22780 | 2085 | 0.700 | |
| U | 238.050 | 238.025 | 47384 | 2080 | 0.703 | |

# Quantitative Analysis - Summary Report

**Sample ID: Blank**
Sample Date/Time: Tuesday, October 22, 2019 08:57:59
Report Date/Time: Tuesday, October 22, 2019 08:59:39
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 195038.7 | 2.7 | | | | ug/L | | Standard |
| | As | 75 | 1314.5 | 8.1 | | | | ug/L | | Standard |
| | As-1 | 75 | 2.8 | 598.8 | | | | ug/L | | Standard |
| | Se | 77 | 28.0 | 16.4 | | | | ug/L | | Standard |
| | Se | 78 | 1536.7 | 7.0 | | | | ug/L | | Standard |
| | Br | 79 | 106.3 | 6.9 | | | | ug/L | | Standard |
| | Se | 82 | 18.7 | 25.3 | | | | ug/L | | Standard |
| | Kr | 83 | 16.0 | 16.5 | | | | ug/L | | Standard |
| | Y | 89 | 468204.6 | 0.3 | | | | ug/L | | Standard |
| | Rh | 103 | 387259.4 | 0.2 | | | | ug/L | | Standard |
| > | In | 115 | 410903.6 | 0.7 | | | | ug/L | | Standard |
| | Ba | 135 | 74.0 | 23.6 | | | | ug/L | | Standard |
| | Ba | 137 | 100.0 | 14.5 | | | | ug/L | | Standard |
| > | Tb | 159 | 463634.2 | 1.0 | | | | ug/L | | Standard |
| | Ho | 165 | 491596.8 | 1.0 | | | | ug/L | | Standard |
| | Pb | 208 | 1823.7 | 0.7 | | | | ug/L | | Standard |
| | Bi | 209 | 342297.7 | 0.5 | | | | ug/L | | Standard |
| | Th | 232 | 485915.5 | 0.9 | | | | ug/L | | Standard |
| > | Ge-1 | 72 | 5623.1 | 3.9 | | | | ug/L | | KED |
| | As-2 | 75 | 0.3 | 173.2 | | | | ug/L | | KED |
| | Y-1 | 89 | 9993.2 | 1.0 | | | | ug/L | | KED |
| | Rh-1 | 103 | 71706.2 | 0.6 | | | | ug/L | | KED |
| | In-1 | 115 | 7067.5 | 2.2 | | | | ug/L | | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Tuesday, October 22, 2019 09:01:11
Report Date/Time: Tuesday, October 22, 2019 09:02:51
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 198653.0 | 2.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1674.3 | 5.2 | 0.5000 | 0.121 | 24.2 | ug/L | 1314 | Standard |
| | As-1 | 75 | 402.7 | 7.1 | 0.5000 | 0.041 | 8.1 | ug/L | 3 | Standard |
| | Se | 77 | 44.7 | 12.7 | 0.5000 | 0.155 | 31.0 | ug/L | 28 | Standard |
| | Se | 78 | 1683.8 | 4.2 | | | | ug/L | 1537 | Standard |
| | Br | 79 | 91.7 | 6.6 | | | | ug/L | 106 | Standard |
| | Se | 82 | 89.3 | 3.9 | 0.5000 | 0.036 | 7.3 | ug/L | 19 | Standard |
| | Kr | 83 | 10.3 | 20.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 484829.5 | 2.9 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 403246.4 | 3.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 422241.1 | 0.1 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 1238.7 | 1.4 | 0.5000 | 0.008 | 1.6 | ug/L | 74 | Standard |
| | Ba | 137 | 2039.1 | 1.3 | 0.5000 | 0.006 | 1.2 | ug/L | 100 | Standard |
| > | Tb | 159 | 478027.4 | 0.5 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 509139.3 | 0.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 21231.9 | 1.9 | 0.5000 | 0.010 | 2.0 | ug/L | 1824 | Standard |
| | Bi | 209 | 346588.5 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 496703.8 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5808.2 | 0.8 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 21.0 | 12.6 | 0.5000 | 0.064 | 12.7 | ug/L | 0 | KED |
| | Y-1 | 89 | 10446.8 | 1.1 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 74081.9 | 0.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7287.1 | 2.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**
Sample Date/Time: Tuesday, October 22, 2019 09:04:23
Report Date/Time: Tuesday, October 22, 2019 09:06:03
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 191512.0 | 4.3 | | | | ug/L | 195039 | Standard |
| | As | 75 | 2599.6 | 4.0 | **2.0014** | 0.053 | 2.6 | ug/L | 1314 | Standard |
| | As-1 | 75 | 1524.5 | 4.6 | **1.9984** | 0.071 | 3.6 | ug/L | 3 | Standard |
| | Se | 77 | 128.7 | 7.2 | **2.0465** | 0.137 | 6.7 | ug/L | 28 | Standard |
| | Se | 78 | 1991.1 | 6.4 | **2.0000** | 0.362 | 18.1 | ug/L | 1537 | Standard |
| | Br | 79 | 103.0 | 4.9 | | | | ug/L | 106 | Standard |
| | Se | 82 | 284.0 | 14.7 | **1.9975** | 0.301 | 15.1 | ug/L | 19 | Standard |
| | Kr | 83 | 17.7 | 8.6 | | | | ug/L | 16 | Standard |
| | Y | 89 | 461549.6 | 1.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 387144.1 | 2.5 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 407478.4 | 1.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 4737.8 | 2.0 | **2.0052** | 0.017 | 0.8 | ug/L | 74 | Standard |
| | Ba | 137 | 7879.5 | 1.6 | **2.0053** | 0.011 | 0.6 | ug/L | 100 | Standard |
| > | Tb | 159 | 458546.4 | 1.2 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 486620.6 | 0.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 79568.4 | 0.8 | **2.0053** | 0.030 | 1.5 | ug/L | 1824 | Standard |
| | Bi | 209 | 332062.0 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 479332.3 | 0.4 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5688.8 | 3.0 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 66.7 | 4.6 | **1.9746** | 0.121 | 6.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 10112.2 | 1.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 72320.3 | 0.3 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7167.0 | 1.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Tuesday, October 22, 2019 09:07:35
Report Date/Time: Tuesday, October 22, 2019 09:09:15
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 173128.5 | 3.2 | | | | ug/L | 195039 | Standard |
| | As | 75 | 12259.9 | 2.6 | **19.9862** | 0.494 | 2.5 | ug/L | 1314 | Standard |
| | As-1 | 75 | 13583.8 | 2.5 | **19.9971** | 0.546 | 2.7 | ug/L | 3 | Standard |
| | Se | 77 | 950.4 | 5.1 | **20.0072** | 0.487 | 2.4 | ug/L | 28 | Standard |
| | Se | 78 | 5155.3 | 5.7 | **19.9703** | 0.681 | 3.4 | ug/L | 1537 | Standard |
| | Br | 79 | 86.7 | 9.7 | | | | ug/L | 106 | Standard |
| | Se | 82 | 2444.2 | 4.1 | **20.0020** | 0.311 | 1.6 | ug/L | 19 | Standard |
| | Kr | 83 | 14.3 | 42.6 | | | | ug/L | 16 | Standard |
| | Y | 89 | 409610.8 | 1.7 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 351585.7 | 2.6 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 376406.0 | 0.3 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 41359.5 | 0.8 | **19.9925** | 0.072 | 0.4 | ug/L | 74 | Standard |
| | Ba | 137 | 69905.3 | 0.4 | **19.9954** | 0.199 | 1.0 | ug/L | 100 | Standard |
| > | Tb | 159 | 421530.5 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 448326.6 | 0.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 714488.9 | 0.8 | **19.9999** | 0.251 | 1.3 | ug/L | 1824 | Standard |
| | Bi | 209 | 310992.3 | 0.4 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 444536.8 | 0.2 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5260.3 | 1.1 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 624.3 | 2.9 | **20.0008** | 0.765 | 3.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 9304.0 | 0.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 65587.6 | 0.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6565.7 | 2.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Tuesday, October 22, 2019 09:10:47
Report Date/Time: Tuesday, October 22, 2019 09:12:27
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 173114.1 | 1.7 | | | | ug/L | 195039 | Standard |
| | As | 75 | 23216.1 | 1.8 | **39.9431** | 0.658 | 1.6 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26871.1 | 0.7 | **39.9098** | 0.714 | 1.8 | ug/L | 3 | Standard |
| | Se | 77 | 1853.1 | 8.1 | **39.9005** | 2.629 | 6.6 | ug/L | 28 | Standard |
| | Se | 78 | 8618.6 | 5.3 | **39.6296** | 1.694 | 4.3 | ug/L | 1537 | Standard |
| | Br | 79 | 80.3 | 2.6 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4686.1 | 1.5 | **39.6844** | 0.269 | 0.7 | ug/L | 19 | Standard |
| | Kr | 83 | 19.0 | 18.2 | | | | ug/L | 16 | Standard |
| | Y | 89 | 419734.7 | 3.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 352755.1 | 3.3 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 375378.3 | 1.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 82088.8 | 0.4 | **39.9474** | 0.253 | 0.6 | ug/L | 74 | Standard |
| | Ba | 137 | 138853.9 | 0.3 | **39.9532** | 0.166 | 0.4 | ug/L | 100 | Standard |
| > | Tb | 159 | 421241.0 | 0.2 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 451010.9 | 0.5 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1424124.9 | 0.6 | **39.9871** | 0.222 | 0.6 | ug/L | 1824 | Standard |
| | Bi | 209 | 309015.2 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 448624.0 | 0.3 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5206.3 | 1.0 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1206.4 | 1.6 | **39.8040** | 0.454 | 1.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 9303.7 | 0.5 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 66484.4 | 0.8 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6742.2 | 3.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Tuesday, October 22, 2019 09:13:58
Report Date/Time: Tuesday, October 22, 2019 09:15:38
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166263.6 | 3.3 | | | | ug/L | 195039 | Standard |
| | As | 75 | 56742.3 | 3.1 | **100.7878** | 0.734 | 0.7 | ug/L | 1314 | Standard |
| | As-1 | 75 | 67650.7 | 2.1 | **100.7449** | 1.387 | 1.4 | ug/L | 3 | Standard |
| | Se | 77 | 4913.5 | 6.6 | **101.6974** | 3.430 | 3.4 | ug/L | 28 | Standard |
| | Se | 78 | 20275.7 | 3.2 | **101.2415** | 0.951 | 0.9 | ug/L | 1537 | Standard |
| | Br | 79 | 97.3 | 8.6 | | | | ug/L | 106 | Standard |
| | Se | 82 | 11985.4 | 2.1 | **100.9498** | 3.264 | 3.2 | ug/L | 19 | Standard |
| | Kr | 83 | 22.7 | 17.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 408240.6 | 2.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 339829.6 | 0.8 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 365283.3 | 1.1 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 208362.0 | 1.0 | **100.5452** | 1.321 | 1.3 | ug/L | 74 | Standard |
| | Ba | 137 | 353997.3 | 1.1 | **100.6178** | 1.440 | 1.4 | ug/L | 100 | Standard |
| > | Tb | 159 | 413467.5 | 0.4 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 437854.2 | 0.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 3647948.2 | 1.0 | **100.7135** | 1.137 | 1.1 | ug/L | 1824 | Standard |
| | Bi | 209 | 303419.2 | 1.5 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 440851.8 | 1.1 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5109.6 | 1.3 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 3096.7 | 0.7 | **100.6665** | 0.645 | 0.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 9130.3 | 1.0 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63976.6 | 1.6 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6505.1 | 1.4 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 1

Sample Date/Time: Tuesday, October 22, 2019 09:18:00
Report Date/Time: Tuesday, October 22, 2019 09:19:40
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 169092.3 | 1.6 | | | | ug/L | 195039 | Standard |
| | As | 75 | 29936.9 | 3.2 | **51.3002** | 1.241 | 2.4 | ug/L | 1314 | Standard |
| | As-1 | 75 | 34861.8 | 1.6 | **51.0328** | 0.532 | 1.0 | ug/L | 3 | Standard |
| | Se | 77 | 2454.5 | 4.6 | **49.7254** | 1.783 | 3.6 | ug/L | 28 | Standard |
| | Se | 78 | 10810.8 | 4.0 | **49.7519** | 2.252 | 4.5 | ug/L | 1537 | Standard |
| | Br | 79 | 91.7 | 10.7 | | | | ug/L | 106 | Standard |
| | Se | 82 | 6019.6 | 1.3 | **49.7722** | 1.424 | 2.9 | ug/L | 19 | Standard |
| | Kr | 83 | 23.3 | 16.2 | | | | ug/L | 16 | Standard |
| | Y | 89 | 401319.0 | 3.4 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 336506.1 | 1.9 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 362676.5 | 0.9 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 111415.1 | 1.1 | **54.7419** | 0.197 | 0.4 | ug/L | 74 | Standard |
| | Ba | 137 | 188879.9 | 1.3 | **54.6658** | 0.522 | 1.0 | ug/L | 100 | Standard |
| > | Tb | 159 | 405954.5 | 0.9 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 432506.2 | 0.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1819336.8 | 0.7 | **51.1389** | 0.681 | 1.3 | ug/L | 1824 | Standard |
| | Bi | 209 | 299990.5 | 0.5 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 436100.5 | 0.5 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4986.2 | 0.3 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1546.4 | 1.8 | **51.5087** | 1.014 | 2.0 | ug/L | 0 | KED |
| | Y-1 | 89 | 9077.6 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63453.0 | 1.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6383.3 | 2.2 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 86.697 |
| | 75 | As | 102.600 | |
| | 75 | As-1 | 102.066 | |
| | 77 | Se | 99.451 | |
| | 78 | Se | 99.504 | |
| | 79 | Br | | |
| | 82 | Se | 99.544 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 88.263 |
| | 135 | Ba | 109.484 | |
| | 137 | Ba | 109.332 | |
| > | 159 | Tb | | 87.559 |
| | 165 | Ho | | |
| | 208 | Pb | 102.278 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 88.673 |
| | 75As-2 | 103.017 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Tuesday, October 22, 2019 09:22:01
Report Date/Time: Tuesday, October 22, 2019 09:23:41
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 176424.6 | 1.8 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1274.3 | 2.6 | **0.1453** | 0.020 | 13.8 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26.9 | 86.4 | **0.0340** | 0.032 | 94.0 | ug/L | 3 | Standard |
| | Se | 77 | 19.7 | 5.9 | **-0.1108** | 0.028 | 25.6 | ug/L | 28 | Standard |
| | Se | 78 | 1464.7 | 1.9 | **0.3756** | 0.061 | 16.3 | ug/L | 1537 | Standard |
| | Br | 79 | 85.7 | 11.0 | | | | ug/L | 106 | Standard |
| | Se | 82 | 19.0 | 15.8 | **0.0166** | 0.021 | 128.0 | ug/L | 19 | Standard |
| | Kr | 83 | 14.0 | 21.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 426939.2 | 2.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 355796.9 | 3.1 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 378285.5 | 1.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 85.3 | 14.2 | **0.0083** | 0.006 | 66.5 | ug/L | 74 | Standard |
| | Ba | 137 | 95.7 | 3.4 | **0.0012** | 0.001 | 88.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 424157.7 | 0.9 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 451910.1 | 1.1 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1626.0 | 3.6 | **-0.0011** | 0.001 | 110.8 | ug/L | 1824 | Standard |
| | Bi | 209 | 319953.8 | 1.5 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 456225.9 | 1.0 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5368.0 | 1.5 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1.3 | 43.3 | **0.0312** | 0.017 | 54.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 9496.5 | 0.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 66766.7 | 0.8 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6745.7 | 1.4 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 90.456 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 92.062 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 91.485 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 95.463 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 3**
Sample Date/Time: Tuesday, October 22, 2019 09:25:13
Report Date/Time: Tuesday, October 22, 2019 09:26:53
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 178390.9 | 3.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 2405.2 | 5.5 | **2.0297** | 0.119 | 5.8 | ug/L | 1314 | Standard |
| | As-1 | 75 | 1409.9 | 4.7 | **1.9527** | 0.066 | 3.4 | ug/L | 3 | Standard |
| | Se | 77 | 118.7 | 6.8 | **1.8041** | 0.109 | 6.1 | ug/L | 28 | Standard |
| | Se | 78 | 1829.1 | 4.4 | **2.1046** | 0.148 | 7.0 | ug/L | 1537 | Standard |
| | Br | 79 | 109.0 | 11.3 | | | | ug/L | 106 | Standard |
| | Se | 82 | 257.7 | 2.5 | **1.8918** | 0.093 | 4.9 | ug/L | 19 | Standard |
| | Kr | 83 | 13.7 | 4.2 | | | | ug/L | 16 | Standard |
| | Y | 89 | 434041.9 | 1.4 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 365491.3 | 1.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 382811.3 | 0.6 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 4263.0 | 2.8 | **1.9460** | 0.080 | 4.1 | ug/L | 74 | Standard |
| | Ba | 137 | 7163.8 | 1.8 | **1.9316** | 0.024 | 1.2 | ug/L | 100 | Standard |
| > | Tb | 159 | 430315.5 | 1.8 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 455818.0 | 1.1 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 75041.1 | 0.3 | **1.9470** | 0.038 | 1.9 | ug/L | 1824 | Standard |
| | Bi | 209 | 315645.5 | 0.7 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 459295.8 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5345.0 | 2.9 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 70.0 | 5.2 | **2.1678** | 0.153 | 7.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 9553.5 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 67376.2 | 1.3 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6802.9 | 1.1 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.464 |
| | 75 | As | 101.483 | |
| | 75 | As-1 | 97.634 | |
| | 77 | Se | 90.204 | |
| | 78 | Se | 105.230 | |
| | 79 | Br | | |
| | 82 | Se | 94.589 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 93.163 |
| | 135 | Ba | 97.301 | |
| | 137 | Ba | 96.581 | |
| > | 159 | Tb | | 92.814 |
| | 165 | Ho | | |
| | 208 | Pb | 97.351 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 95.054 |
| 75As-2 | 108.391 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 4**

Sample Date/Time: Tuesday, October 22, 2019 09:29:14
Report Date/Time: Tuesday, October 22, 2019 09:30:54
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 187609.6 | 0.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1669.6 | 8.8 | **0.6499** | 0.222 | 34.1 | ug/L | 1314 | Standard |
| | As-1 | 75 | 394.2 | 4.9 | **0.5165** | 0.025 | 4.8 | ug/L | 3 | Standard |
| | Se | 77 | 43.3 | 10.9 | **0.3023** | 0.085 | 28.1 | ug/L | 28 | Standard |
| | Se | 78 | 1651.8 | 9.3 | **0.8190** | 0.693 | 84.6 | ug/L | 1537 | Standard |
| | Br | 79 | 99.7 | 3.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 76.0 | 8.6 | **0.4338** | 0.051 | 11.9 | ug/L | 19 | Standard |
| | Kr | 83 | 13.0 | 15.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 445694.4 | 3.4 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 376158.8 | 3.6 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 393634.2 | 0.4 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 1150.4 | 0.9 | **0.4891** | 0.007 | 1.5 | ug/L | 74 | Standard |
| | Ba | 137 | 1913.8 | 3.4 | **0.4851** | 0.015 | 3.0 | ug/L | 100 | Standard |
| > | Tb | 159 | 440701.2 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 468898.5 | 1.7 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 19809.4 | 0.5 | **0.4684** | 0.004 | 0.9 | ug/L | 1824 | Standard |
| | Bi | 209 | 330421.0 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 474891.3 | 0.3 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5441.4 | 1.5 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 17.0 | 27.0 | **0.5087** | 0.137 | 26.9 | ug/L | 0 | KED |
| | Y-1 | 89 | 9944.5 | 1.1 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 69366.7 | 0.1 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7071.3 | 1.1 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 96.191 |
| | 75As | 129.986 | |
| | 75As-1 | 103.308 | |
| | 77Se | 60.467 | |
| | 78Se | 163.792 | |
| | 79Br | | |
| | 82Se | 86.751 | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 95.797 |
| | 135Ba | 97.827 | |
| | 137Ba | 97.010 | |
| > | 159Tb | | 95.054 |
| | 165Ho | | |
| | 208Pb | 93.684 | |
| | 209Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 96.768 |
| 75As-2 | 101.747 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 22, 2019 09:33:15
Report Date/Time: Tuesday, October 22, 2019 09:34:55
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 170820.8 | 3.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 23057.9 | 5.0 | **38.6184** | 0.911 | 2.4 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26561.8 | 1.7 | **38.4967** | 0.488 | 1.3 | ug/L | 3 | Standard |
| | Se | 77 | 1928.5 | 5.7 | **38.5504** | 1.149 | 3.0 | ug/L | 28 | Standard |
| | Se | 78 | 8643.6 | 6.9 | **37.8809** | 1.744 | 4.6 | ug/L | 1537 | Standard |
| | Br | 79 | 90.3 | 3.4 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4632.4 | 3.6 | **37.9041** | 2.093 | 5.5 | ug/L | 19 | Standard |
| | Kr | 83 | 16.0 | 27.2 | | | | ug/L | 16 | Standard |
| | Y | 89 | 417957.8 | 1.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 346553.2 | 1.3 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 362040.5 | 0.6 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 80084.5 | 1.3 | **39.2312** | 0.206 | 0.5 | ug/L | 74 | Standard |
| | Ba | 137 | 135194.1 | 1.6 | **39.0120** | 0.254 | 0.6 | ug/L | 100 | Standard |
| > | Tb | 159 | 407075.9 | 1.2 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 435973.3 | 0.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1386515.0 | 1.1 | **38.8554** | 0.604 | 1.6 | ug/L | 1824 | Standard |
| | Bi | 209 | 301907.4 | 1.0 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 439505.5 | 0.6 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5177.9 | 1.6 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1181.0 | 2.6 | **37.8950** | 1.578 | 4.2 | ug/L | 0 | KED |
| | Y-1 | 89 | 9218.6 | 0.9 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63621.0 | 0.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6559.2 | 1.1 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 87.583 |
| | 75As | 96.546 | |
| | 75As-1 | 96.242 | |
| | 77Se | 96.376 | |
| | 78Se | 94.702 | |
| | 79Br | | |
| | 82Se | 94.760 | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 88.108 |
| | 135Ba | 98.078 | |
| | 137Ba | 97.530 | |
| > | 159Tb | | 87.801 |
| | 165Ho | | |
| | 208Pb | 97.139 | |
| | 209Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 92.083 |
| 75As-2 | 94.738 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Tuesday, October 22, 2019 09:37:17
Report Date/Time: Tuesday, October 22, 2019 09:38:57
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 177175.6 | 0.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1307.8 | 6.0 | 0.1933 | 0.130 | 67.5 | ug/L | 1314 | Standard |
| | As-1 | 75 | 32.7 | 15.5 | 0.0421 | 0.007 | 16.3 | ug/L | 3 | Standard |
| | Se | 77 | 15.7 | 19.5 | -0.1906 | 0.061 | 32.2 | ug/L | 28 | Standard |
| | Se | 78 | 1491.7 | 6.4 | 0.4792 | 0.469 | 97.8 | ug/L | 1537 | Standard |
| | Br | 79 | 89.3 | 11.0 | | | | ug/L | 106 | Standard |
| | Se | 82 | 17.3 | 20.3 | 0.0029 | 0.027 | 938.7 | ug/L | 19 | Standard |
| | Kr | 83 | 11.3 | 18.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 430030.8 | 2.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 360887.5 | 1.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 376273.6 | 0.9 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 85.0 | 3.5 | 0.0085 | 0.001 | 13.8 | ug/L | 74 | Standard |
| | Ba | 137 | 90.3 | 3.4 | -0.0001 | 0.001 | 993.4 | ug/L | 100 | Standard |
| > | Tb | 159 | 419936.9 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 444093.5 | 0.7 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1535.4 | 1.5 | -0.0032 | 0.001 | 24.3 | ug/L | 1824 | Standard |
| | Bi | 209 | 315070.5 | 0.2 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 456983.6 | 0.5 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5271.3 | 1.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1.7 | 69.3 | 0.0424 | 0.035 | 83.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 9535.2 | 0.7 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 67043.0 | 0.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6856.1 | 1.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 90.841 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 91.572 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 90.575 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 93.744
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Tuesday, October 22, 2019 09:40:28
Report Date/Time: Tuesday, October 22, 2019 09:42:07
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 142811.7 | 1.7 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1143.2 | 9.8 | **0.3796** | 0.208 | 54.9 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26.4 | 287.1 | **0.0412** | 0.131 | 317.2 | ug/L | 3 | Standard |
| | Se | 77 | 132.7 | 1.7 | **2.7182** | 0.057 | 2.1 | ug/L | 28 | Standard |
| | Se | 78 | 1366.7 | 3.8 | **1.4996** | 0.236 | 15.7 | ug/L | 1537 | Standard |
| | Br | 79 | 537.0 | 7.2 | | | | ug/L | 106 | Standard |
| | Se | 82 | 37.3 | 10.8 | **0.2320** | 0.035 | 15.2 | ug/L | 19 | Standard |
| | Kr | 83 | 95.7 | 9.7 | | | | ug/L | 16 | Standard |
| | Y | 89 | 333569.4 | 2.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 262487.6 | 1.6 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 312484.8 | 0.1 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 43.3 | 21.4 | **-0.0093** | 0.005 | 51.7 | ug/L | 74 | Standard |
| | Ba | 137 | 52.3 | 8.0 | **-0.0093** | 0.001 | 14.2 | ug/L | 100 | Standard |
| > | Tb | 159 | 383654.5 | 0.4 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 395986.8 | 1.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1217.0 | 0.9 | **-0.0087** | 0.000 | 2.2 | ug/L | 1824 | Standard |
| | Bi | 209 | 244216.8 | 0.4 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 410087.4 | 0.4 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4235.3 | 2.2 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 2.0 | 100.0 | **0.0683** | 0.077 | 112.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 7744.4 | 0.2 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 49742.5 | 1.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 5478.4 | 1.1 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 73.222 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 76.048 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 82.749 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 75.319 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: ICSAB**

Sample Date/Time: Tuesday, October 22, 2019 09:44:28
Report Date/Time: Tuesday, October 22, 2019 09:46:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 145614.1 | 3.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 19703.7 | 5.5 | **38.7133** | 1.001 | 2.6 | ug/L | 1314 | Standard |
| | As-1 | 75 | 22859.6 | 3.7 | **38.8521** | 0.307 | 0.8 | ug/L | 3 | Standard |
| | Se | 77 | 1807.8 | 6.9 | **42.4347** | 1.789 | 4.2 | ug/L | 28 | Standard |
| | Se | 78 | 7476.3 | 4.9 | **38.5569** | 0.869 | 2.3 | ug/L | 1537 | Standard |
| | Br | 79 | 647.0 | 1.9 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4058.9 | 1.5 | **38.9496** | 1.062 | 2.7 | ug/L | 19 | Standard |
| | Kr | 83 | 101.3 | 13.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 347586.4 | 1.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 272720.4 | 0.9 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 322954.3 | 0.6 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 72935.1 | 2.1 | **36.4108** | 0.260 | 0.7 | ug/L | 74 | Standard |
| | Ba | 137 | 125541.6 | 1.1 | **36.9240** | 0.275 | 0.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 399403.1 | 1.4 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 411711.4 | 0.9 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1184244.9 | 0.5 | **33.8194** | 0.395 | 1.2 | ug/L | 1824 | Standard |
| | Bi | 209 | 252247.5 | 0.1 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 419688.6 | 0.9 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4415.3 | 2.7 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1035.0 | 4.7 | **38.9592** | 2.362 | 6.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 8041.9 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 51278.9 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 5674.4 | 2.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 74.659 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 78.596 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 86.146 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 78.522 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1017SM1 5X**

Sample Date/Time: Tuesday, October 22, 2019 09:48:47
Report Date/Time: Tuesday, October 22, 2019 09:50:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 167035.6 | 1.1 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1203.0 | 4.4 | **0.1391** | 0.082 | 59.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 3.5 | 242.2 | **0.0016** | 0.012 | 776.2 | ug/L | 3 | Standard |
| | Se | 77 | 21.7 | 30.7 | **-0.0482** | 0.137 | 283.7 | ug/L | 28 | Standard |
| | Se | 78 | 1399.7 | 4.4 | **0.4433** | 0.280 | 63.1 | ug/L | 1537 | Standard |
| | Br | 79 | 96.7 | 10.9 | | | | ug/L | 106 | Standard |
| | Se | 82 | 15.0 | 24.0 | **-0.0083** | 0.030 | 359.1 | ug/L | 19 | Standard |
| | Kr | 83 | 14.3 | 20.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 407532.9 | 1.1 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 345074.3 | 3.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 378336.6 | 0.7 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 247.0 | 4.1 | **0.0870** | 0.005 | 6.2 | ug/L | 74 | Standard |
| | Ba | 137 | 384.3 | 1.0 | **0.0836** | 0.001 | 1.4 | ug/L | 100 | Standard |
| > | Tb | 159 | 414671.0 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 443113.1 | 1.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1045.0 | 3.1 | **-0.0161** | 0.001 | 6.1 | ug/L | 1824 | Standard |
| | Bi | 209 | 313184.1 | 0.4 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 449655.1 | 1.0 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5273.0 | 1.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1.0 | 100.0 | **0.0216** | 0.032 | 146.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 9547.9 | 2.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 66191.0 | 1.6 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6837.8 | 0.5 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 85.642 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 92.074 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 89.439 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| [> | 72Ge-1 | 93.773 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1017SM1 50X**

Sample Date/Time: Tuesday, October 22, 2019 09:52:47
Report Date/Time: Tuesday, October 22, 2019 09:54:26
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 174060.2 | 1.8 | | | | ug/L | 195039 | Standard |
| | As | 75 | 22942.5 | 5.4 | **37.6626** | 1.499 | 4.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26113.2 | 3.4 | **37.1262** | 0.588 | 1.6 | ug/L | 3 | Standard |
| | Se | 77 | 1912.8 | 4.2 | **37.5308** | 1.393 | 3.7 | ug/L | 28 | Standard |
| | Se | 78 | 8833.1 | 6.1 | **38.0240** | 2.016 | 5.3 | ug/L | 1537 | Standard |
| | Br | 79 | 108.0 | 18.9 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4563.4 | 2.6 | **36.6087** | 0.684 | 1.9 | ug/L | 19 | Standard |
| | Kr | 83 | 14.3 | 4.0 | | | | ug/L | 16 | Standard |
| | Y | 89 | 424808.3 | 1.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 351543.9 | 4.3 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 367050.9 | 0.6 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 78572.5 | 1.2 | **37.9428** | 0.498 | 1.3 | ug/L | 74 | Standard |
| | Ba | 137 | 131627.3 | 0.5 | **37.4428** | 0.125 | 0.3 | ug/L | 100 | Standard |
| > | Tb | 159 | 412947.1 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 444000.5 | 0.1 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 3482654.4 | 0.5 | **96.2714** | 1.057 | 1.1 | ug/L | 1824 | Standard |
| | Bi | 209 | 302638.5 | 0.7 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 443791.5 | 0.3 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5183.9 | 0.3 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1170.7 | 4.3 | **37.5014** | 1.522 | 4.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 9506.2 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 65233.6 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6736.0 | 1.5 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 89.244 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 89.328 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 89.067 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 92.190 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01 10X**

Sample Date/Time: Tuesday, October 22, 2019 09:56:47
Report Date/Time: Tuesday, October 22, 2019 09:58:26
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 155518.4 | 1.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 90582.4 | 3.7 | **173.3992** | 3.892 | 2.2 | ug/L | 1314 | Standard |
| | As-1 | 75 | 89632.5 | 3.7 | **142.6339** | 3.166 | 2.2 | ug/L | 3 | Standard |
| | Se | 77 | 56.0 | 9.3 | **0.7483** | 0.096 | 12.9 | ug/L | 28 | Standard |
| | Se | 78 | 1308.4 | 4.6 | **0.4719** | 0.246 | 52.1 | ug/L | 1537 | Standard |
| | Br | 79 | 389.7 | 4.0 | | | | ug/L | 106 | Standard |
| | Se | 82 | 85.3 | 11.3 | **0.6346** | 0.083 | 13.1 | ug/L | 19 | Standard |
| | Kr | 83 | 52.7 | 14.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 471743.2 | 1.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 293154.1 | 0.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 355432.5 | 1.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 398401.7 | 1.1 | **179.7806** | 1.228 | 0.7 | ug/L | 74 | Standard |
| | Ba | 137 | 678925.9 | 0.9 | **180.4532** | 1.232 | 0.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 442187.8 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 455594.5 | 0.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 2406661.8 | 0.1 | **62.1115** | 0.413 | 0.7 | ug/L | 1824 | Standard |
| | Bi | 209 | 287849.4 | 0.4 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 535807.2 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5116.2 | 1.9 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 5610.8 | 1.0 | **182.2241** | 5.346 | 2.9 | ug/L | 0 | KED |
| | Y-1 | 89 | 11614.1 | 0.0 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 59795.2 | 1.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6253.9 | 1.4 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 79.737 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 86.500 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 95.374 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 90.986 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01D 10X**

Sample Date/Time: Tuesday, October 22, 2019 10:00:47
Report Date/Time: Tuesday, October 22, 2019 10:02:26
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154014.5 | 1.3 | | | | ug/L | 195039 | Standard |
| | As | 75 | 150279.3 | 2.7 | **291.8871** | 4.705 | 1.6 | ug/L | 1314 | Standard |
| | As-1 | 75 | 149356.5 | 2.7 | **240.0236** | 3.780 | 1.6 | ug/L | 3 | Standard |
| | Se | 77 | 55.3 | 25.6 | **0.7476** | 0.327 | 43.7 | ug/L | 28 | Standard |
| | Se | 78 | 1296.7 | 5.4 | **0.4773** | 0.321 | 67.3 | ug/L | 1537 | Standard |
| | Br | 79 | 386.7 | 4.4 | | | | ug/L | 106 | Standard |
| | Se | 82 | 92.3 | 4.4 | **0.7064** | 0.047 | 6.6 | ug/L | 19 | Standard |
| | Kr | 83 | 55.7 | 16.6 | | | | ug/L | 16 | Standard |
| | Y | 89 | 466682.5 | 1.1 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 286702.0 | 1.9 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 354802.9 | 1.1 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 424407.6 | 1.2 | **187.3692** | 2.019 | 1.1 | ug/L | 74 | Standard |
| | Ba | 137 | 727745.0 | 1.1 | **189.2379** | 1.536 | 0.8 | ug/L | 100 | Standard |
| > | Tb | 159 | 451978.4 | 0.4 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 464572.1 | 1.1 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1518663.3 | 1.2 | **38.3274** | 0.516 | 1.3 | ug/L | 1824 | Standard |
| | Bi | 209 | 290168.6 | 0.3 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 563591.1 | 0.6 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5012.2 | 0.9 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 9388.4 | 1.3 | **311.1247** | 1.638 | 0.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 12141.2 | 2.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 60332.5 | 0.8 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6448.9 | 1.5 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 78.966 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 86.347 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 97.486 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 89.136 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01L 50X**

Sample Date/Time: Tuesday, October 22, 2019 10:04:47
Report Date/Time: Tuesday, October 22, 2019 10:06:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 160044.1 | 2.1 | | | | ug/L | 195039 | Standard |
| | As | 75 | 19633.3 | 3.3 | **34.9224** | 0.719 | 2.1 | ug/L | 1314 | Standard |
| | As-1 | 75 | 18466.7 | 3.2 | **28.5566** | 0.524 | 1.8 | ug/L | 3 | Standard |
| | Se | 77 | 22.7 | 16.7 | **-0.0059** | 0.088 | 1486.4 | ug/L | 28 | Standard |
| | Se | 78 | 1397.7 | 4.8 | **0.7558** | 0.231 | 30.6 | ug/L | 1537 | Standard |
| | Br | 79 | 179.7 | 16.7 | | | | ug/L | 106 | Standard |
| | Se | 82 | 28.0 | 16.4 | **0.1115** | 0.043 | 39.0 | ug/L | 19 | Standard |
| | Kr | 83 | 19.3 | 38.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 410120.0 | 3.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 318639.7 | 3.2 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 353031.9 | 1.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 81504.9 | 1.0 | **40.1094** | 0.490 | 1.2 | ug/L | 74 | Standard |
| | Ba | 137 | 137979.8 | 0.9 | **39.9980** | 0.331 | 0.8 | ug/L | 100 | Standard |
| > | Tb | 159 | 405238.3 | 0.2 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 429303.1 | 1.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 514143.9 | 0.7 | **14.4440** | 0.075 | 0.5 | ug/L | 1824 | Standard |
| | Bi | 209 | 289338.5 | 0.7 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 447891.1 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4996.2 | 2.1 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1115.0 | 4.4 | **37.0952** | 2.409 | 6.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 9640.6 | 1.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 60975.9 | 1.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6396.9 | 1.9 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyte | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 82.058 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 85.916 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 87.405 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 88.851
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01MS 50X**

Sample Date/Time: Tuesday, October 22, 2019 10:08:48
Report Date/Time: Tuesday, October 22, 2019 10:10:28
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 163338.0 | 1.8 | | | | ug/L | 195039 | Standard |
| \| | As | 75 | 37885.9 | 3.7 | **67.8336** | 1.669 | 2.5 | ug/L | 1314 | Standard |
| \| | As-1 | 75 | 41266.2 | 3.2 | **62.5327** | 1.466 | 2.3 | ug/L | 3 | Standard |
| \| | Se | 77 | 1710.4 | 5.4 | **35.7328** | 1.568 | 4.4 | ug/L | 28 | Standard |
| \| | Se | 78 | 7844.8 | 3.7 | **35.6233** | 0.842 | 2.4 | ug/L | 1537 | Standard |
| \| | Br | 79 | 187.3 | 4.4 | | | | ug/L | 106 | Standard |
| ⌊ | Se | 82 | 4287.6 | 2.7 | **36.6654** | 1.313 | 3.6 | ug/L | 19 | Standard |
| | Kr | 83 | 26.7 | 10.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 408530.8 | 3.3 | | | | ug/L | 468205 | Standard |
| ⌈ | Rh | 103 | 320321.4 | 2.9 | | | | ug/L | 387259 | Standard |
| ⌊> | In | 115 | 355994.7 | 1.0 | | | | ug/L | 410904 | Standard |
| ⌈ | Ba | 135 | 163348.3 | 0.9 | **80.2842** | 1.144 | 1.4 | ug/L | 74 | Standard |
| \| | Ba | 137 | 274046.3 | 0.8 | **79.3377** | 1.212 | 1.5 | ug/L | 100 | Standard |
| \|> | Tb | 159 | 405943.2 | 1.3 | | | | ug/L | 463634 | Standard |
| \| | Ho | 165 | 431300.5 | 0.9 | | | | ug/L | 491597 | Standard |
| \| | Pb | 208 | 3744368.5 | 0.6 | **105.2988** | 0.831 | 0.8 | ug/L | 1824 | Standard |
| \| | Bi | 209 | 285882.6 | 0.7 | | | | ug/L | 342298 | Standard |
| ⌊ | Th | 232 | 448908.5 | 1.3 | | | | ug/L | 485916 | Standard |
| ⌈> | Ge-1 | 72 | 5009.5 | 2.6 | | | | ug/L | 5623 | KED |
| ⌊ | As-2 | 75 | 2143.5 | 4.7 | **71.0762** | 3.122 | 4.4 | ug/L | 0 | KED |
| | Y-1 | 89 | 9760.7 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 62206.2 | 1.4 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6539.7 | 2.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| ⌈> | 72Ge | | 83.746 |
| \| | 75As | | |
| \| | 75As-1 | | |
| \| | 77Se | | |
| \| | 78Se | | |
| \| | 79Br | | |
| ⌊ | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| ⌈ | 103Rh | | |
| ⌊> | 115In | | 86.637 |
| ⌈ | 135Ba | | |
| \| | 137Ba | | |
| \|> | 159Tb | | 87.557 |
| \| | 165Ho | | |
| \| | 208Pb | | |
| \| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 89.089 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01MSD 50X**

Sample Date/Time: Tuesday, October 22, 2019 10:12:49
Report Date/Time: Tuesday, October 22, 2019 10:14:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154062.2 | 3.3 | | | | ug/L | 195039 | Standard |
| | As | 75 | 42768.5 | 3.8 | **81.6127** | 2.411 | 3.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 46140.8 | 3.2 | **74.1457** | 1.657 | 2.2 | ug/L | 3 | Standard |
| | Se | 77 | 1608.8 | 4.9 | **35.6263** | 0.739 | 2.1 | ug/L | 28 | Standard |
| | Se | 78 | 7420.9 | 5.9 | **35.7691** | 2.414 | 6.7 | ug/L | 1537 | Standard |
| | Br | 79 | 179.7 | 4.5 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4128.6 | 2.2 | **37.4352** | 0.747 | 2.0 | ug/L | 19 | Standard |
| | Kr | 83 | 25.7 | 41.3 | | | | ug/L | 16 | Standard |
| | Y | 89 | 398849.3 | 3.8 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 312089.4 | 2.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 347366.6 | 0.2 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 172604.5 | 1.0 | **85.1197** | 0.667 | 0.8 | ug/L | 74 | Standard |
| | Ba | 137 | 293202.0 | 1.4 | **85.1653** | 0.710 | 0.8 | ug/L | 100 | Standard |
| > | Tb | 159 | 404557.1 | 1.0 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 422977.6 | 0.6 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 3339790.6 | 0.4 | **94.2384** | 1.035 | 1.1 | ug/L | 1824 | Standard |
| | Bi | 209 | 279654.4 | 0.5 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 444189.6 | 0.9 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4892.5 | 1.3 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 2536.9 | 1.9 | **86.1185** | 0.515 | 0.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 9633.2 | 1.9 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 60825.2 | 0.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6430.5 | 1.2 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 78.991 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 84.537 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 87.258 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 87.007 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01PS 10X**

Sample Date/Time: Tuesday, October 22, 2019 10:16:50
Report Date/Time: Tuesday, October 22, 2019 10:18:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149322.9 | 2.2 | | | | ug/L | 195039 | Standard |
| | As | 75 | 104380.8 | 3.9 | **208.5040** | 3.792 | 1.8 | ug/L | 1314 | Standard |
| | As-1 | 75 | 108263.6 | 3.5 | **179.4361** | 2.417 | 1.3 | ug/L | 3 | Standard |
| | Se | 77 | 1691.4 | 5.4 | **38.6902** | 1.611 | 4.2 | ug/L | 28 | Standard |
| | Se | 78 | 7472.6 | 7.9 | **37.3876** | 2.598 | 6.9 | ug/L | 1537 | Standard |
| | Br | 79 | 386.0 | 4.2 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4360.0 | 2.0 | **40.7881** | 0.154 | 0.4 | ug/L | 19 | Standard |
| | Kr | 83 | 53.3 | 30.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 456600.4 | 3.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 285064.6 | 3.5 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 345324.3 | 0.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 467209.1 | 1.3 | **218.2182** | 3.277 | 1.5 | ug/L | 74 | Standard |
| | Ba | 137 | 793583.4 | 1.2 | **218.3016** | 1.000 | 0.5 | ug/L | 100 | Standard |
| > | Tb | 159 | 427280.1 | 1.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 440900.6 | 1.7 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 3574476.8 | 0.7 | **95.5006** | 0.989 | 1.0 | ug/L | 1824 | Standard |
| | Bi | 209 | 278715.0 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 519319.1 | 0.3 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4934.9 | 2.3 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 6565.5 | 0.8 | **221.0406** | 3.624 | 1.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 11789.9 | 0.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 59483.3 | 0.6 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6288.1 | 1.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 76.561 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 84.040 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.159 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 87.760 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**
Sample Date/Time: Tuesday, October 22, 2019 10:20:52
Report Date/Time: Tuesday, October 22, 2019 10:22:32
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 161723.7 | 4.9 | | | | ug/L | 195039 | Standard |
| \| | As | 75 | 21286.5 | 4.4 | **37.6328** | 0.726 | 1.9 | ug/L | 1314 | Standard |
| \| | As-1 | 75 | 24525.5 | 2.6 | **37.5659** | 0.986 | 2.6 | ug/L | 3 | Standard |
| \| | Se | 77 | 1703.1 | 5.4 | **35.9465** | 0.846 | 2.4 | ug/L | 28 | Standard |
| \| | Se | 78 | 8162.0 | 5.5 | **37.7945** | 0.755 | 2.0 | ug/L | 1537 | Standard |
| \| | Br | 79 | 91.3 | 15.5 | | | | ug/L | 106 | Standard |
| ⌊ | Se | 82 | 4345.3 | 1.1 | **37.5691** | 1.444 | 3.8 | ug/L | 19 | Standard |
| | Kr | 83 | 15.3 | 37.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 392574.2 | 3.8 | | | | ug/L | 468205 | Standard |
| ⌈ | Rh | 103 | 325914.6 | 1.8 | | | | ug/L | 387259 | Standard |
| ⌊> | In | 115 | 352896.6 | 1.4 | | | | ug/L | 410904 | Standard |
| ⌈ | Ba | 135 | 77962.8 | 1.1 | **39.0586** | 0.335 | 0.9 | ug/L | 74 | Standard |
| \| | Ba | 137 | 129613.4 | 1.0 | **38.2505** | 0.061 | 0.2 | ug/L | 100 | Standard |
| \|> | Tb | 159 | 398051.9 | 1.1 | | | | ug/L | 463634 | Standard |
| \| | Ho | 165 | 425849.3 | 1.6 | | | | ug/L | 491597 | Standard |
| \| | Pb | 208 | 1358375.0 | 1.1 | **38.9314** | 0.744 | 1.9 | ug/L | 1824 | Standard |
| \| | Bi | 209 | 297655.1 | 0.8 | | | | ug/L | 342298 | Standard |
| ⌊ | Th | 232 | 431042.9 | 0.8 | | | | ug/L | 485916 | Standard |
| ⌈> | Ge-1 | 72 | 5073.6 | 0.3 | | | | ug/L | 5623 | KED |
| \| | As-2 | 75 | 1172.0 | 4.1 | **38.3603** | 1.473 | 3.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 9192.0 | 2.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 62712.4 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6546.8 | 0.8 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| ⌈> | 72 | Ge | | 82.919 |
| \| | 75 | As | 94.082 | |
| \| | 75 | As-1 | 93.915 | |
| \| | 77 | Se | 89.866 | |
| \| | 78 | Se | 94.486 | |
| \| | 79 | Br | | |
| ⌊ | 82 | Se | 93.923 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| ⌈ | 103 | Rh | | |
| ⌊> | 115 | In | | 85.883 |
| ⌈ | 135 | Ba | 97.646 | |
| \| | 137 | Ba | 95.626 | |
| \|> | 159 | Tb | | 85.855 |
| \| | 165 | Ho | | |
| \| | 208 | Pb | 97.329 | |
| \| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| L | 232Th | | |
| [> | 72Ge-1 | | 90.227 |
| L | 75As-2 | 95.901 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

**Sample ID: QC Std 6**
Report Date/Time: Tuesday, October 22, 2019 10:22:32

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Tuesday, October 22, 2019 10:24:53
Report Date/Time: Tuesday, October 22, 2019 10:26:34
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 171823.6 | 1.1 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1179.5 | 6.1 | **0.0373** | 0.113 | 303.7 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26.0 | 23.1 | **0.0339** | 0.009 | 26.1 | ug/L | 3 | Standard |
| | Se | 77 | 16.7 | 9.2 | **-0.1612** | 0.030 | 18.4 | ug/L | 28 | Standard |
| | Se | 78 | 1359.4 | 7.4 | **0.0270** | 0.479 | 1770.2 | ug/L | 1537 | Standard |
| | Br | 79 | 89.7 | 3.6 | | | | ug/L | 106 | Standard |
| | Se | 82 | 19.3 | 24.4 | **0.0234** | 0.038 | 161.9 | ug/L | 19 | Standard |
| | Kr | 83 | 12.3 | 9.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 403494.1 | 2.4 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 337117.8 | 1.4 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 376490.3 | 0.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 78.3 | 6.6 | **0.0057** | 0.002 | 40.9 | ug/L | 74 | Standard |
| | Ba | 137 | 92.3 | 14.1 | **0.0007** | 0.004 | 506.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 416323.3 | 0.3 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 443381.4 | 0.2 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1596.7 | 1.3 | **-0.0011** | 0.000 | 39.4 | ug/L | 1824 | Standard |
| | Bi | 209 | 312628.2 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 450888.8 | 0.6 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5424.4 | 1.8 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1.0 | 100.0 | **0.0209** | 0.031 | 148.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 9664.3 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 67727.9 | 2.1 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7074.5 | 1.2 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 88.097 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 91.625 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 89.796 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 96.466 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01 50X**
Sample Date/Time: Tuesday, October 22, 2019 10:32:52
Report Date/Time: Tuesday, October 22, 2019 10:34:31
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164753.0 | 2.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 20705.9 | 3.8 | **35.8229** | 0.463 | 1.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 19498.3 | 3.4 | **29.2878** | 0.265 | 0.9 | ug/L | 3 | Standard |
| | Se | 77 | 30.3 | 29.9 | **0.1384** | 0.178 | 128.3 | ug/L | 28 | Standard |
| | Se | 78 | 1462.4 | 8.5 | **0.8772** | 0.476 | 54.2 | ug/L | 1537 | Standard |
| | Br | 79 | 162.7 | 4.7 | | | | ug/L | 106 | Standard |
| | Se | 82 | 34.7 | 7.3 | **0.1611** | 0.027 | 16.6 | ug/L | 19 | Standard |
| | Kr | 83 | 22.0 | 19.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 431430.9 | 4.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 336427.5 | 2.4 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 357444.6 | 0.7 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 81320.5 | 0.7 | **39.8676** | 0.355 | 0.9 | ug/L | 74 | Standard |
| | Ba | 137 | 138862.0 | 0.7 | **40.1034** | 0.428 | 1.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 406801.0 | 1.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 432681.1 | 0.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 510867.5 | 0.9 | **14.2980** | 0.180 | 1.3 | ug/L | 1824 | Standard |
| | Bi | 209 | 290058.5 | 0.7 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 450051.9 | 0.2 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5230.0 | 0.6 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1154.4 | 2.0 | **36.6561** | 0.814 | 2.2 | ug/L | 0 | KED |
| | Y-1 | 89 | 9963.1 | 1.2 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 62981.9 | 1.1 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6761.2 | 0.3 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 84.472 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 86.990 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 87.742 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 93.008 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01D 50X**

Sample Date/Time: Tuesday, October 22, 2019 10:36:52
Report Date/Time: Tuesday, October 22, 2019 10:38:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 168801.0 | 3.0 | | | | ug/L | 195039 | Standard |
| \| | As | 75 | 34835.9 | 3.9 | **60.1323** | 1.020 | 1.7 | ug/L | 1314 | Standard |
| \| | As-1 | 75 | 33637.0 | 4.0 | **49.3164** | 0.774 | 1.6 | ug/L | 3 | Standard |
| \| | Se | 77 | 31.0 | 17.1 | **0.1401** | 0.119 | 85.0 | ug/L | 28 | Standard |
| \| | Se | 78 | 1450.7 | 4.7 | **0.6362** | 0.325 | 51.0 | ug/L | 1537 | Standard |
| \| | Br | 79 | 207.3 | 12.9 | | | | ug/L | 106 | Standard |
| \| | Se | 82 | 34.0 | 5.1 | **0.1480** | 0.007 | 4.5 | ug/L | 19 | Standard |
| | Kr | 83 | 22.7 | 38.0 | | | | ug/L | 16 | Standard |
| | Y | 89 | 426659.0 | 3.8 | | | | ug/L | 468205 | Standard |
| ⌈ | Rh | 103 | 329963.7 | 2.5 | | | | ug/L | 387259 | Standard |
| ⌊> | In | 115 | 362783.6 | 0.4 | | | | ug/L | 410904 | Standard |
| ⌈ | Ba | 135 | 89771.2 | 0.7 | **43.0819** | 0.589 | 1.4 | ug/L | 74 | Standard |
| \| | Ba | 137 | 153348.0 | 0.1 | **43.3510** | 0.474 | 1.1 | ug/L | 100 | Standard |
| \|> | Tb | 159 | 415590.1 | 1.0 | | | | ug/L | 463634 | Standard |
| \| | Ho | 165 | 438376.4 | 1.2 | | | | ug/L | 491597 | Standard |
| \| | Pb | 208 | 334568.3 | 0.8 | **9.1496** | 0.148 | 1.6 | ug/L | 1824 | Standard |
| \| | Bi | 209 | 294555.1 | 0.4 | | | | ug/L | 342298 | Standard |
| ⌊ | Th | 232 | 463773.5 | 0.9 | | | | ug/L | 485916 | Standard |
| ⌈> | Ge-1 | 72 | 5300.3 | 1.0 | | | | ug/L | 5623 | KED |
| ⌊ | As-2 | 75 | 1970.1 | 2.4 | **61.7287** | 0.964 | 1.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 10265.0 | 1.1 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63551.1 | 3.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6843.9 | 1.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| ⌈> | 72Ge | | 86.547 |
| \| | 75As | | |
| \| | 75As-1 | | |
| \| | 77Se | | |
| \| | 78Se | | |
| \| | 79Br | | |
| ⌊ | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| ⌈ | 103Rh | | |
| ⌊> | 115In | | 88.289 |
| ⌈ | 135Ba | | |
| \| | 137Ba | | |
| \|> | 159Tb | | 89.637 |
| \| | 165Ho | | |
| \| | 208Pb | | |
| \| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 94.260 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01L 250X**

Sample Date/Time: Tuesday, October 22, 2019 10:40:53
Report Date/Time: Tuesday, October 22, 2019 10:42:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 170443.0 | 3.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 5364.5 | 2.5 | **7.4522** | 0.055 | 0.7 | ug/L | 1314 | Standard |
| | As-1 | 75 | 4100.5 | 2.9 | **5.9518** | 0.012 | 0.2 | ug/L | 3 | Standard |
| | Se | 77 | 22.0 | 15.7 | **-0.0509** | 0.063 | 123.0 | ug/L | 28 | Standard |
| | Se | 78 | 1482.7 | 1.5 | **0.7302** | 0.119 | 16.4 | ug/L | 1537 | Standard |
| | Br | 79 | 105.3 | 3.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 18.7 | 13.5 | **0.0193** | 0.020 | 102.6 | ug/L | 19 | Standard |
| | Kr | 83 | 17.3 | 21.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 409786.6 | 1.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 343441.8 | 2.1 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 366570.6 | 1.7 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 17207.4 | 0.7 | **8.3177** | 0.115 | 1.4 | ug/L | 74 | Standard |
| | Ba | 137 | 29131.3 | 0.6 | **8.3001** | 0.110 | 1.3 | ug/L | 100 | Standard |
| > | Tb | 159 | 411329.9 | 0.7 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 437419.1 | 1.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 110106.9 | 0.4 | **3.0121** | 0.019 | 0.6 | ug/L | 1824 | Standard |
| | Bi | 209 | 301173.3 | 0.4 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 442571.5 | 0.1 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5294.3 | 2.2 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 233.7 | 3.3 | **7.3220** | 0.199 | 2.7 | ug/L | 0 | KED |
| | Y-1 | 89 | 9848.7 | 1.7 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 66102.2 | 0.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6984.0 | 0.8 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | MassAnalyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 87.389 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 89.211 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 88.719 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

94.153

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01MS 100X**

Sample Date/Time: Tuesday, October 22, 2019 10:44:54
Report Date/Time: Tuesday, October 22, 2019 10:46:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 179181.9 | 2.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 20199.4 | 2.1 | **31.9328** | 0.157 | 0.5 | ug/L | 1314 | Standard |
| | As-1 | 75 | 21302.4 | 1.5 | **29.4313** | 0.383 | 1.3 | ug/L | 3 | Standard |
| | Se | 77 | 936.4 | 4.7 | **17.5846** | 0.624 | 3.5 | ug/L | 28 | Standard |
| | Se | 78 | 4932.5 | 5.3 | **17.4279** | 0.702 | 4.0 | ug/L | 1537 | Standard |
| | Br | 79 | 138.7 | 7.9 | | | | ug/L | 106 | Standard |
| | Se | 82 | 2270.5 | 1.6 | **17.6276** | 0.196 | 1.1 | ug/L | 19 | Standard |
| | Kr | 83 | 14.7 | 3.9 | | | | ug/L | 16 | Standard |
| | Y | 89 | 433955.0 | 0.6 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 355994.9 | 0.9 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 383075.5 | 1.2 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 82580.7 | 1.3 | **38.1179** | 0.257 | 0.7 | ug/L | 74 | Standard |
| | Ba | 137 | 138377.3 | 0.7 | **37.6289** | 0.507 | 1.3 | ug/L | 100 | Standard |
| > | Tb | 159 | 432002.1 | 0.7 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 456827.5 | 0.7 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1933439.8 | 0.9 | **51.0662** | 0.425 | 0.8 | ug/L | 1824 | Standard |
| | Bi | 209 | 308510.1 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 467285.3 | 0.6 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5575.1 | 0.9 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1164.4 | 0.4 | **34.6853** | 0.428 | 1.2 | ug/L | 0 | KED |
| | Y-1 | 89 | 10645.3 | 0.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 69026.4 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7353.4 | 1.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 91.870 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 93.228 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 93.177 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 99.146 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-222-01MSD 100X

Sample Date/Time: Tuesday, October 22, 2019 10:48:54
Report Date/Time: Tuesday, October 22, 2019 10:50:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 177525.4 | 2.7 | | | | ug/L | 195039 | Standard |
| | As | 75 | 24050.8 | 4.0 | **38.7739** | 0.502 | 1.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 25061.7 | 2.8 | **34.9412** | 0.096 | 0.3 | ug/L | 3 | Standard |
| | Se | 77 | 899.4 | 5.7 | **17.0251** | 0.509 | 3.0 | ug/L | 28 | Standard |
| | Se | 78 | 4860.8 | 3.3 | **17.3051** | 0.144 | 0.8 | ug/L | 1537 | Standard |
| | Br | 79 | 155.3 | 7.4 | | | | ug/L | 106 | Standard |
| | Se | 82 | 2205.8 | 1.9 | **17.2942** | 0.791 | 4.6 | ug/L | 19 | Standard |
| | Kr | 83 | 16.7 | 3.5 | | | | ug/L | 16 | Standard |
| | Y | 89 | 434688.7 | 2.2 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 344993.3 | 1.5 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 374555.8 | 1.2 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 87986.1 | 0.5 | **40.9790** | 0.293 | 0.7 | ug/L | 74 | Standard |
| | Ba | 137 | 149200.8 | 0.5 | **40.9340** | 0.268 | 0.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 428183.9 | 0.2 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 453536.9 | 0.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1755369.3 | 0.9 | **46.7723** | 0.437 | 0.9 | ug/L | 1824 | Standard |
| | Bi | 209 | 305911.1 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 465894.4 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5555.4 | 1.5 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1362.1 | 4.4 | **40.7342** | 2.236 | 5.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 10518.2 | 0.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 68717.9 | 1.6 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7256.4 | 2.5 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.021 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 91.154 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.354 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| L | 232Th | |
| [> | 72Ge-1 | 98.796 |
| L | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01PS 50X**
Sample Date/Time: Tuesday, October 22, 2019 10:52:55
Report Date/Time: Tuesday, October 22, 2019 10:54:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163682.9 | 1.7 | | | | ug/L | 195039 | Standard |
| | As | 75 | 40712.3 | 3.9 | **72.8812** | 1.666 | 2.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 44003.6 | 2.9 | **66.5342** | 0.769 | 1.2 | ug/L | 3 | Standard |
| | Se | 77 | 1772.4 | 3.3 | **36.9715** | 0.818 | 2.2 | ug/L | 28 | Standard |
| | Se | 78 | 8355.1 | 5.3 | **38.2966** | 1.877 | 4.9 | ug/L | 1537 | Standard |
| | Br | 79 | 162.7 | 15.3 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4438.0 | 0.5 | **37.8718** | 0.660 | 1.7 | ug/L | 19 | Standard |
| | Kr | 83 | 18.3 | 20.7 | | | | ug/L | 16 | Standard |
| | Y | 89 | 428900.1 | 3.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 334827.5 | 1.8 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 355187.5 | 0.2 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 155820.6 | 1.4 | **75.9903** | 0.614 | 0.8 | ug/L | 74 | Standard |
| | Ba | 137 | 263097.4 | 0.8 | **75.5802** | 0.733 | 1.0 | ug/L | 100 | Standard |
| > | Tb | 159 | 409089.8 | 1.7 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 430085.4 | 0.9 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1800256.6 | 0.2 | **50.2195** | 0.808 | 1.6 | ug/L | 1824 | Standard |
| | Bi | 209 | 287977.0 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 448291.7 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5230.3 | 1.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 2303.2 | 0.5 | **73.1437** | 0.690 | 0.9 | ug/L | 0 | KED |
| | Y-1 | 89 | 10043.5 | 0.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63719.1 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6836.7 | 1.3 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 83.923 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 86.441 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.235 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 93.014 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-02 10X**

Sample Date/Time: Tuesday, October 22, 2019 10:56:55
Report Date/Time: Tuesday, October 22, 2019 10:58:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 152733.3 | 2.0 | | | | ug/L | 195039 | Standard |
| \| | As | 75 | 44887.2 | 3.7 | **86.4884** | 1.688 | 2.0 | ug/L | 1314 | Standard |
| \| | As-1 | 75 | 43955.8 | 3.7 | **71.2220** | 1.321 | 1.9 | ug/L | 3 | Standard |
| \| | Se | 77 | 69.0 | 6.3 | **1.0659** | 0.075 | 7.1 | ug/L | 28 | Standard |
| \| | Se | 78 | 1392.7 | 5.7 | **1.0973** | 0.341 | 31.1 | ug/L | 1537 | Standard |
| \| | Br | 79 | 641.0 | 4.5 | | | | ug/L | 106 | Standard |
| ⌊ | Se | 82 | 124.0 | 16.2 | **1.0019** | 0.167 | 16.6 | ug/L | 19 | Standard |
| | Kr | 83 | 85.0 | 9.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 466382.7 | 1.9 | | | | ug/L | 468205 | Standard |
| ⌈ | Rh | 103 | 283835.3 | 4.1 | | | | ug/L | 387259 | Standard |
| \|> | In | 115 | 345505.4 | 0.8 | | | | ug/L | 410904 | Standard |
| ⌈ | Ba | 135 | 376593.2 | 1.1 | **176.4799** | 3.822 | 2.2 | ug/L | 74 | Standard |
| \| | Ba | 137 | 634047.5 | 0.3 | **174.9968** | 2.222 | 1.3 | ug/L | 100 | Standard |
| \|> | Tb | 159 | 425877.5 | 1.3 | | | | ug/L | 463634 | Standard |
| \| | Ho | 165 | 440571.8 | 1.7 | | | | ug/L | 491597 | Standard |
| \| | Pb | 208 | 2289515.0 | 1.3 | **61.3555** | 1.104 | 1.8 | ug/L | 1824 | Standard |
| \| | Bi | 209 | 281179.0 | 0.7 | | | | ug/L | 342298 | Standard |
| ⌊ | Th | 232 | 550147.5 | 0.8 | | | | ug/L | 485916 | Standard |
| ⌈> | Ge-1 | 72 | 5080.6 | 1.9 | | | | ug/L | 5623 | KED |
| \| | As-2 | 75 | 2832.9 | 1.3 | **92.6495** | 2.850 | 3.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 12301.3 | 0.0 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 59778.5 | 0.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6393.2 | 1.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| ⌈> | 72 | Ge | | 78.309 |
| \| | 75 | As | | |
| \| | 75 | As-1 | | |
| \| | 77 | Se | | |
| \| | 78 | Se | | |
| \| | 79 | Br | | |
| ⌊ | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| ⌈ | 103 | Rh | | |
| ⌊> | 115 | In | | 84.084 |
| ⌈ | 135 | Ba | | |
| \| | 137 | Ba | | |
| \|> | 159 | Tb | | 91.856 |
| \| | 165 | Ho | | |
| \| | 208 | Pb | | |
| \| | 209 | Bi | | |

232Th
72Ge-1 90.352
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-03 10X**

Sample Date/Time: Tuesday, October 22, 2019 11:00:54
Report Date/Time: Tuesday, October 22, 2019 11:02:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154608.4 | 2.1 | | | | ug/L | 195039 | Standard |
| | As | 75 | 38309.5 | 2.4 | **72.6133** | 0.380 | 0.5 | ug/L | 1314 | Standard |
| | As-1 | 75 | 37361.9 | 2.3 | **59.8135** | 0.264 | 0.4 | ug/L | 3 | Standard |
| | Se | 77 | 61.3 | 9.0 | **0.8746** | 0.095 | 10.9 | ug/L | 28 | Standard |
| | Se | 78 | 1392.1 | 3.3 | **0.9982** | 0.203 | 20.3 | ug/L | 1537 | Standard |
| | Br | 79 | 472.3 | 4.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 117.0 | 2.6 | **0.9271** | 0.049 | 5.2 | ug/L | 19 | Standard |
| | Kr | 83 | 88.7 | 13.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 478057.2 | 2.4 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 284420.5 | 2.8 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 347413.8 | 0.7 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 337163.8 | 0.5 | **157.8450** | 1.434 | 0.9 | ug/L | 74 | Standard |
| | Ba | 137 | 569490.5 | 0.5 | **157.0298** | 0.501 | 0.3 | ug/L | 100 | Standard |
| > | Tb | 159 | 426236.2 | 0.8 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 441202.9 | 1.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 379554.6 | 0.1 | **10.1248** | 0.075 | 0.7 | ug/L | 1824 | Standard |
| | Bi | 209 | 278970.4 | 1.0 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 520281.1 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5122.9 | 2.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 2397.5 | 1.4 | **77.7703** | 2.697 | 3.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 12865.8 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 60018.8 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6480.4 | 2.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 79.271 |
| | 75 | As* | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 84.549 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 91.934 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 91.105 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-04 10X**

Sample Date/Time: Tuesday, October 22, 2019 11:04:55
Report Date/Time: Tuesday, October 22, 2019 11:06:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157327.5 | 3.2 | | | | ug/L | 195039 | Standard |
| | As | 75 | 67199.5 | 2.6 | **126.6641** | 1.067 | 0.8 | ug/L | 1314 | Standard |
| | As-1 | 75 | 66644.4 | 2.5 | **104.8728** | 1.029 | 1.0 | ug/L | 3 | Standard |
| | Se | 77 | 195.0 | 1.0 | **3.7962** | 0.182 | 4.8 | ug/L | 28 | Standard |
| | Se | 78 | 1880.5 | 5.4 | **3.6103** | 0.247 | 6.8 | ug/L | 1537 | Standard |
| | Br | 79 | 257.3 | 7.0 | | | | ug/L | 106 | Standard |
| | Se | 82 | 459.7 | 6.8 | **3.9642** | 0.325 | 8.2 | ug/L | 19 | Standard |
| | Kr | 83 | 16.3 | 9.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 368687.4 | 4.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 304874.9 | 3.1 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 346107.7 | 1.3 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 144376.2 | 0.7 | **70.9211** | 0.319 | 0.5 | ug/L | 74 | Standard |
| | Ba | 137 | 245437.8 | 0.6 | **71.0175** | 0.434 | 0.6 | ug/L | 100 | Standard |
| > | Tb | 159 | 406102.8 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 423557.8 | 1.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 249393.9 | 0.3 | **6.9684** | 0.026 | 0.4 | ug/L | 1824 | Standard |
| | Bi | 209 | 284683.4 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 430891.1 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5125.9 | 1.2 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 4098.9 | 1.3 | **132.8414** | 3.072 | 2.3 | ug/L | 0 | KED |
| | Y-1 | 89 | 9455.5 | 1.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 61096.4 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6586.5 | 0.9 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 80.665 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 84.231 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 87.591 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 91.158 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-05 10X**

Sample Date/Time: Tuesday, October 22, 2019 11:08:56
Report Date/Time: Tuesday, October 22, 2019 11:10:36
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 153877.7 | 2.7 | | | | ug/L | 195039 | Standard |
| | As | 75 | 310389.8 | 2.6 | **605.6373** | 0.299 | 0.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 310507.7 | 2.6 | **499.5041** | 0.364 | 0.1 | ug/L | 3 | Standard |
| | Se | 77 | 470.7 | 4.8 | **10.0846** | 0.285 | 2.8 | ug/L | 28 | Standard |
| | Se | 78 | 2863.3 | 3.8 | **9.5189** | 0.272 | 2.9 | ug/L | 1537 | Standard |
| | Br | 79 | 705.4 | 4.7 | | | | ug/L | 106 | Standard |
| | Se | 82 | 1100.7 | 1.4 | **9.8951** | 0.282 | 2.8 | ug/L | 19 | Standard |
| | Kr | 83 | 31.3 | 10.3 | | | | ug/L | 16 | Standard |
| | Y | 89 | 386866.9 | 0.9 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 284925.2 | 1.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 338351.3 | 0.6 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 303240.4 | 0.7 | **147.5339** | 2.728 | 1.8 | ug/L | 74 | Standard |
| | Ba | 137 | 512406.5 | 0.5 | **146.8238** | 0.867 | 0.6 | ug/L | 100 | Standard |
| > | Tb | 159 | 410177.1 | 1.1 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 428644.9 | 1.1 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 2167554.0 | 0.5 | **60.3065** | 0.442 | 0.7 | ug/L | 1824 | Standard |
| | Bi | 209 | 278586.1 | 0.3 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 462819.7 | 0.4 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4954.9 | 0.6 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 19913.2 | 1.5 | **667.6045** | 12.556 | 1.9 | ug/L | 0 | KED |
| | Y-1 | 89 | 10029.9 | 2.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 58915.2 | 0.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6396.6 | 2.4 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 78.896 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 82.343 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.470 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 88.116 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 22, 2019 11:12:57
Report Date/Time: Tuesday, October 22, 2019 11:14:37
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161975.1 | 2.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 21702.7 | 5.1 | **38.3168** | 1.047 | 2.7 | ug/L | 1314 | Standard |
| | As-1 | 75 | 25103.6 | 3.1 | **38.3569** | 0.272 | 0.7 | ug/L | 3 | Standard |
| | Se | 77 | 1803.8 | 6.1 | **38.0215** | 1.571 | 4.1 | ug/L | 28 | Standard |
| | Se | 78 | 8246.4 | 4.6 | **38.1762** | 1.036 | 2.7 | ug/L | 1537 | Standard |
| | Br | 79 | 119.3 | 13.1 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4443.7 | 1.9 | **38.3296** | 1.202 | 3.1 | ug/L | 19 | Standard |
| | Kr | 83 | 10.0 | 30.0 | | | | ug/L | 16 | Standard |
| | Y | 89 | 391037.6 | 1.4 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 328198.4 | 1.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 353571.3 | 0.4 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 76222.1 | 0.1 | **38.9441** | 0.309 | 0.8 | ug/L | 74 | Standard |
| | Ba | 137 | 127883.2 | 0.3 | **38.4901** | 0.408 | 1.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 390314.5 | 0.9 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 415743.8 | 1.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1332115.2 | 1.3 | **38.9302** | 0.279 | 0.7 | ug/L | 1824 | Standard |
| | Bi | 209 | 290932.7 | 2.4 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 425334.7 | 1.4 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5268.3 | 1.0 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1200.1 | 1.8 | **37.8344** | 1.052 | 2.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 9534.8 | 2.1 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63598.3 | 0.6 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6809.4 | 0.8 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 83.048 |
| | 75 | As | 95.792 | |
| | 75 | As-1 | 95.892 | |
| | 77 | Se | 95.054 | |
| | 78 | Se | 95.440 | |
| | 79 | Br | | |
| | 82 | Se | 95.824 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 86.047 |
| | 135 | Ba | 97.360 | |
| | 137 | Ba | 96.225 | |
| > | 159 | Tb | | 84.186 |
| | 165 | Ho | | |
| | 208 | Pb | 97.326 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 93.690 |
| | 75As-2 | 94.586 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

**Sample ID: QC Std 6**
Report Date/Time: Tuesday, October 22, 2019 11:14:37

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Tuesday, October 22, 2019 11:16:58
Report Date/Time: Tuesday, October 22, 2019 11:18:38
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 170652.5 | 2.0 | | | | ug/L | 195039 | Standard |
| \| | As | 75 | 1241.0 | 2.9 | **0.1606** | 0.060 | 37.5 | ug/L | 1314 | Standard |
| \| | As-1 | 75 | 32.1 | 20.9 | **0.0430** | 0.009 | 21.5 | ug/L | 3 | Standard |
| \| | Se | 77 | 19.7 | 25.6 | **-0.0976** | 0.103 | 105.6 | ug/L | 28 | Standard |
| \| | Se | 78 | 1415.7 | 3.2 | **0.3705** | 0.210 | 56.6 | ug/L | 1537 | Standard |
| \| | Br | 79 | 102.3 | 15.7 | | | | ug/L | 106 | Standard |
| \| | Se | 82 | 17.0 | 20.4 | **0.0052** | 0.026 | 506.8 | ug/L | 19 | Standard |
| | Kr | 83 | 12.3 | 26.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 406686.2 | 2.8 | | | | ug/L | 468205 | Standard |
| ⌈ | Rh | 103 | 341721.4 | 2.5 | | | | ug/L | 387259 | Standard |
| ⌊> | In | 115 | 366892.5 | 1.2 | | | | ug/L | 410904 | Standard |
| ⌈ | Ba | 135 | 60.0 | 6.0 | **-0.0022** | 0.001 | 65.9 | ug/L | 74 | Standard |
| \| | Ba | 137 | 83.0 | 6.3 | **-0.0012** | 0.001 | 117.2 | ug/L | 100 | Standard |
| \|> | Tb | 159 | 404123.1 | 1.1 | | | | ug/L | 463634 | Standard |
| \| | Ho | 165 | 433542.9 | 1.5 | | | | ug/L | 491597 | Standard |
| \| | Pb | 208 | 1508.7 | 3.0 | **-0.0023** | 0.001 | 52.8 | ug/L | 1824 | Standard |
| \| | Bi | 209 | 306598.3 | 0.8 | | | | ug/L | 342298 | Standard |
| \| | Th | 232 | 440335.2 | 0.7 | | | | ug/L | 485916 | Standard |
| ⌈> | Ge-1 | 72 | 5433.7 | 1.0 | | | | ug/L | 5623 | KED |
| \| | As-2 | 75 | 3.0 | 66.7 | **0.0819** | 0.061 | 74.3 | ug/L | 0 | KED |
| | Y-1 | 89 | 9866.1 | 0.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 66861.8 | 0.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7141.5 | 1.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| ⌈> | 72 | Ge | | 87.497 |
| \| | 75 | As | | |
| \| | 75 | As-1 | | |
| \| | 77 | Se | | |
| \| | 78 | Se | | |
| \| | 79 | Br | | |
| ⌊ | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| ⌈ | 103 | Rh | | |
| ⌊> | 115 | In | | 89.289 |
| ⌈ | 135 | Ba | | |
| \| | 137 | Ba | | |
| \|> | 159 | Tb | | 87.164 |
| \| | 165 | Ho | | |
| \| | 208 | Pb | | |
| \| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 96.632 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-06 10X**

Sample Date/Time: Tuesday, October 22, 2019 11:21:32
Report Date/Time: Tuesday, October 22, 2019 11:23:12
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157123.7 | 0.9 | | | | ug/L | 195039 | Standard |
| | As | 75 | 138596.8 | 2.5 | **263.7065** | 6.599 | 2.5 | ug/L | 1314 | Standard |
| | As-1 | 75 | 137622.6 | 2.6 | **216.8152** | 5.451 | 2.5 | ug/L | 3 | Standard |
| | Se | 77 | 42.3 | 11.9 | **0.4351** | 0.106 | 24.3 | ug/L | 28 | Standard |
| | Se | 78 | 1278.7 | 1.4 | **0.2308** | 0.159 | 68.7 | ug/L | 1537 | Standard |
| | Br | 79 | 650.3 | 3.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 64.3 | 8.0 | **0.4398** | 0.047 | 10.6 | ug/L | 19 | Standard |
| | Kr | 83 | 85.0 | 7.2 | | | | ug/L | 16 | Standard |
| | Y | 89 | 519417.2 | 2.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 287444.8 | 1.4 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 347603.5 | 1.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 284393.3 | 0.8 | **130.3851** | 0.743 | 0.6 | ug/L | 74 | Standard |
| | Ba | 137 | 485390.6 | 1.1 | **131.0847** | 2.243 | 1.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 435213.9 | 0.9 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 451598.0 | 0.6 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 474602.4 | 0.5 | **12.4091** | 0.101 | 0.8 | ug/L | 1824 | Standard |
| | Bi | 209 | 279525.3 | 0.7 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 583342.8 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5075.9 | 2.8 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 8752.0 | 0.7 | **286.5098** | 5.956 | 2.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 13671.5 | 0.7 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 59718.9 | 0.7 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6582.8 | 2.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 80.560 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 84.595 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 93.870 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 90.269
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-07 10X**

Sample Date/Time: Tuesday, October 22, 2019 11:25:33
Report Date/Time: Tuesday, October 22, 2019 11:27:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154716.9 | 2.4 | | | | ug/L | 195039 | Standard |
| | As | 75 | 521187.8 | 2.3 | **1012.8832** | 15.732 | 1.6 | ug/L | 1314 | Standard |
| | As-1 | 75 | 520275.8 | 2.3 | **832.4821** | 12.890 | 1.5 | ug/L | 3 | Standard |
| | Se | 77 | 74.7 | 7.4 | **1.1744** | 0.140 | 11.9 | ug/L | 28 | Standard |
| | Se | 78 | 1338.1 | 2.3 | **0.6833** | 0.114 | 16.6 | ug/L | 1537 | Standard |
| | Br | 79 | 799.0 | 1.4 | | | | ug/L | 106 | Standard |
| | Se | 82 | 112.0 | 17.8 | **0.8780** | 0.156 | 17.7 | ug/L | 19 | Standard |
| | Kr | 83 | 99.0 | 12.3 | | | | ug/L | 16 | Standard |
| | Y | 89 | 475383.1 | 3.8 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 270635.5 | 2.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 340583.1 | 0.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 600069.7 | 0.7 | **279.2098** | 3.439 | 1.2 | ug/L | 74 | Standard |
| | Ba | 137 | 1022628.8 | 0.4 | **280.2557** | 2.913 | 1.0 | ug/L | 100 | Standard |
| > | Tb | 159 | 428918.5 | 1.4 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 441217.3 | 0.2 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 431770.7 | 0.8 | **11.4518** | 0.107 | 0.9 | ug/L | 1824 | Standard |
| | Bi | 209 | 274713.9 | 0.5 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 583415.7 | 0.2 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4992.9 | 1.1 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 33620.5 | 1.5 | **1118.5641** | 16.628 | 1.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 13192.8 | 2.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 59406.3 | 2.1 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6484.1 | 2.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 79.326 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 82.886 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.512 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| L | 232Th | |
| [> | 72Ge-1 | 88.792 |
| L | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1018SH1 25X**

Sample Date/Time: Tuesday, October 22, 2019 11:29:34
Report Date/Time: Tuesday, October 22, 2019 11:31:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 170146.6 | 0.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1248.7 | 9.3 | **0.1808** | 0.210 | 116.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 166.9 | 65.7 | **0.2392** | 0.160 | 66.7 | ug/L | 3 | Standard |
| | Se | 77 | 1866.8 | 5.3 | **37.4751** | 2.157 | 5.8 | ug/L | 28 | Standard |
| | Se | 78 | 1271.7 | 4.6 | **-0.3583** | 0.334 | 93.3 | ug/L | 1537 | Standard |
| | Br | 79 | 133.7 | 21.2 | | | | ug/L | 106 | Standard |
| | Se | 82 | 17.0 | 20.4 | **0.0059** | 0.028 | 483.3 | ug/L | 19 | Standard |
| | Kr | 83 | 14.7 | 56.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 334071.0 | 2.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 281324.2 | 2.9 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 475275.5 | 1.1 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 127.7 | 2.5 | **0.0203** | 0.002 | 8.4 | ug/L | 74 | Standard |
| | Ba | 137 | 192.3 | 11.1 | **0.0209** | 0.005 | 25.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 488868.5 | 0.9 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 516966.7 | 1.5 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1763.4 | 1.1 | **-0.0037** | 0.000 | 9.0 | ug/L | 1824 | Standard |
| | Bi | 209 | 347867.9 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 505191.0 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 7115.8 | 1.7 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 8.0 | 33.1 | **0.1770** | 0.062 | 34.9 | ug/L | 0 | KED |
| | Y-1 | 89 | 12956.2 | 1.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 84413.0 | 1.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 8975.0 | 0.9 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 87.237 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 115.666 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 105.443 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 126.545 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1018SH1 50X**

Sample Date/Time: Tuesday, October 22, 2019 11:33:34
Report Date/Time: Tuesday, October 22, 2019 11:35:14
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 172957.7 | 0.8 | | | | ug/L | 195039 | Standard |
| | As | 75 | 21564.4 | 2.1 | **35.5311** | 0.822 | 2.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 26793.1 | 0.8 | **38.3435** | 0.306 | 0.8 | ug/L | 3 | Standard |
| | Se | 77 | 2668.2 | 5.4 | **52.8768** | 2.516 | 4.8 | ug/L | 28 | Standard |
| | Se | 78 | 7308.9 | 3.9 | **30.5057** | 1.204 | 3.9 | ug/L | 1537 | Standard |
| | Br | 79 | 112.3 | 16.0 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4859.8 | 2.7 | **39.2413** | 0.809 | 2.1 | ug/L | 19 | Standard |
| | Kr | 83 | 17.7 | 21.4 | | | | ug/L | 16 | Standard |
| | Y | 89 | 365087.3 | 2.1 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 312322.8 | 2.9 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 454495.2 | 0.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 97844.6 | 1.0 | **41.0423** | 0.291 | 0.7 | ug/L | 74 | Standard |
| | Ba | 137 | 163278.7 | 1.8 | **40.3442** | 0.603 | 1.5 | ug/L | 100 | Standard |
| > | Tb | 159 | 475413.9 | 0.3 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 502682.6 | 0.3 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 3878303.2 | 0.7 | **93.1158** | 0.344 | 0.4 | ug/L | 1824 | Standard |
| | Bi | 209 | 334131.1 | 0.3 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 489539.0 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6766.6 | 1.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1573.1 | 1.4 | **38.6112** | 0.701 | 1.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 12209.5 | 1.0 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 80686.2 | 0.8 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 8634.6 | 1.5 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 88.679 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 110.609 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.541 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| L | 232Th | |
| [> | 72Ge-1 | 120.336 |
| L | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01 50X**

Sample Date/Time: Tuesday, October 22, 2019 11:37:35
Report Date/Time: Tuesday, October 22, 2019 11:39:14
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 169321.8 | 2.9 | | | | ug/L | 195039 | Standard |
| | As | 75 | 18096.0 | 2.8 | **30.1719** | 0.743 | 2.5 | ug/L | 1314 | Standard |
| | As-1 | 75 | 16996.5 | 2.9 | **24.8493** | 0.598 | 2.4 | ug/L | 3 | Standard |
| | Se | 77 | 874.4 | 7.9 | **17.3698** | 1.228 | 7.1 | ug/L | 28 | Standard |
| | Se | 78 | 1335.4 | 2.6 | **0.0073** | 0.063 | 859.8 | ug/L | 1537 | Standard |
| | Br | 79 | 111.0 | 4.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 33.0 | 3.0 | **0.1393** | 0.016 | 11.7 | ug/L | 19 | Standard |
| | Kr | 83 | 24.0 | 11.0 | | | | ug/L | 16 | Standard |
| | Y | 89 | 390678.9 | 4.8 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 305623.0 | 4.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 437253.4 | 0.9 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 104111.7 | 1.0 | **44.1645** | 0.676 | 1.5 | ug/L | 74 | Standard |
| | Ba | 137 | 174686.6 | 0.5 | **43.6494** | 0.287 | 0.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 470165.7 | 0.8 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 496946.3 | 0.8 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 470424.1 | 0.3 | **11.3820** | 0.116 | 1.0 | ug/L | 1824 | Standard |
| | Bi | 209 | 330472.6 | 0.9 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 505874.0 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6547.2 | 1.6 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1280.1 | 1.4 | **32.4730** | 0.755 | 2.3 | ug/L | 0 | KED |
| | Y-1 | 89 | 12703.0 | 0.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 76845.8 | 0.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 8245.7 | 1.4 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 86.814 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 106.413 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.409 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| L | 232Th | |
| [> | 72Ge-1 | 116.433 |
| L | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01D 50X**

Sample Date/Time: Tuesday, October 22, 2019 11:41:35
Report Date/Time: Tuesday, October 22, 2019 11:43:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164649.3 | 3.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 24902.8 | 2.7 | **43.5367** | 0.169 | 0.4 | ug/L | 1314 | Standard |
| | As-1 | 75 | 23749.2 | 2.8 | **35.7035** | 0.096 | 0.3 | ug/L | 3 | Standard |
| | Se | 77 | 831.4 | 6.5 | **16.9650** | 0.627 | 3.7 | ug/L | 28 | Standard |
| | Se | 78 | 1379.4 | 2.0 | **0.4443** | 0.103 | 23.2 | ug/L | 1537 | Standard |
| | Br | 79 | 101.3 | 2.1 | | | | ug/L | 106 | Standard |
| | Se | 82 | 26.7 | 25.0 | **0.0921** | 0.052 | 56.7 | ug/L | 19 | Standard |
| | Kr | 83 | 21.3 | 30.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 377314.7 | 5.2 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 291297.2 | 2.6 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 412581.7 | 0.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 116701.4 | 1.2 | **51.8190** | 0.621 | 1.2 | ug/L | 74 | Standard |
| | Ba | 137 | 199000.9 | 1.1 | **52.0501** | 0.569 | 1.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 449193.6 | 0.5 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 469919.6 | 1.0 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 314009.4 | 1.0 | **7.9381** | 0.044 | 0.6 | ug/L | 1824 | Standard |
| | Bi | 209 | 314465.3 | 0.9 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 492112.9 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6211.4 | 0.7 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1732.8 | 1.7 | **46.3315** | 0.885 | 1.9 | ug/L | 0 | KED |
| | Y-1 | 89 | 11963.7 | 2.2 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 72716.3 | 1.1 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7929.3 | 2.1 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 84.419 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 100.408 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 96.885 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 110.461 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01L 250X**

Sample Date/Time: Tuesday, October 22, 2019 11:47:24
Report Date/Time: Tuesday, October 22, 2019 11:49:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 182509.1 | 2.9 | | | | ug/L | 195039 | Standard |
| | As | 75 | 5171.8 | 5.0 | **6.5034** | 0.211 | 3.2 | ug/L | 1314 | Standard |
| | As-1 | 75 | 3877.4 | 4.9 | **5.2540** | 0.140 | 2.7 | ug/L | 3 | Standard |
| | Se | 77 | 227.7 | 6.9 | **3.8209** | 0.295 | 7.7 | ug/L | 28 | Standard |
| | Se | 78 | 1504.4 | 5.0 | **0.3200** | 0.154 | 48.1 | ug/L | 1537 | Standard |
| | Br | 79 | 96.3 | 6.6 | | | | ug/L | 106 | Standard |
| | Se | 82 | 14.0 | 28.6 | **-0.0261** | 0.033 | 126.2 | ug/L | 19 | Standard |
| | Kr | 83 | 15.7 | 26.6 | | | | ug/L | 16 | Standard |
| | Y | 89 | 426636.3 | 2.6 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 353616.8 | 2.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 388768.5 | 1.2 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 19921.5 | 1.2 | **9.3590** | 0.024 | 0.3 | ug/L | 74 | Standard |
| | Ba | 137 | 33220.3 | 1.8 | **9.1975** | 0.061 | 0.7 | ug/L | 100 | Standard |
| > | Tb | 159 | 423377.3 | 1.1 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 450707.1 | 1.2 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 95713.3 | 0.2 | **2.5371** | 0.033 | 1.3 | ug/L | 1824 | Standard |
| | Bi | 209 | 311669.9 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 456716.4 | 0.8 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5952.9 | 1.6 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 237.3 | 5.4 | **6.6135** | 0.359 | 5.4 | ug/L | 0 | KED |
| | Y-1 | 89 | 11212.4 | 1.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 72418.4 | 0.8 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7765.3 | 1.8 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 93.576 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 94.613 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 91.317 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 105.865 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01MS 100X**

Sample Date/Time: Tuesday, October 22, 2019 11:51:24
Report Date/Time: Tuesday, October 22, 2019 11:53:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 175533.4 | 2.0 | | | | ug/L | 195039 | Standard |
| | As | 75 | 21451.9 | 2.9 | **34.7811** | 0.364 | 1.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 22993.7 | 2.5 | **32.4200** | 0.183 | 0.6 | ug/L | 3 | Standard |
| | Se | 77 | 1381.7 | 4.1 | **26.7382** | 0.754 | 2.8 | ug/L | 28 | Standard |
| | Se | 78 | 4707.8 | 4.3 | **16.8024** | 0.555 | 3.3 | ug/L | 1537 | Standard |
| | Br | 79 | 99.7 | 7.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 2370.5 | 2.7 | **18.7922** | 0.331 | 1.8 | ug/L | 19 | Standard |
| | Kr | 83 | 16.3 | 39.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 410076.2 | 5.0 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 324851.7 | 4.1 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 400828.5 | 0.3 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 92639.1 | 0.3 | **41.8219** | 0.284 | 0.7 | ug/L | 74 | Standard |
| | Ba | 137 | 155875.5 | 1.0 | **41.4520** | 0.391 | 0.9 | ug/L | 100 | Standard |
| > | Tb | 159 | 441762.1 | 1.0 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 464004.9 | 0.6 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1918607.5 | 0.4 | **49.5550** | 0.305 | 0.6 | ug/L | 1824 | Standard |
| | Bi | 209 | 314051.7 | 1.1 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 471824.2 | 0.6 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6144.7 | 1.7 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1333.4 | 2.9 | **36.0493** | 1.468 | 4.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 11573.0 | 2.0 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 73723.7 | 0.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 8141.9 | 0.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 89.999 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 97.548 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 95.282 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 109.275 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01MSD 100X**

Sample Date/Time: Tuesday, October 22, 2019 11:55:24
Report Date/Time: Tuesday, October 22, 2019 11:57:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 177165.7 | 3.4 | | | | ug/L | 195039 | Standard |
| | As | 75 | 22821.3 | 3.2 | **36.7787** | 0.461 | 1.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 24506.8 | 2.8 | **34.2436** | 0.437 | 1.3 | ug/L | 3 | Standard |
| | Se | 77 | 1330.4 | 4.2 | **25.4870** | 0.463 | 1.8 | ug/L | 28 | Standard |
| | Se | 78 | 4664.8 | 4.2 | **16.3732** | 0.444 | 2.7 | ug/L | 1537 | Standard |
| | Br | 79 | 99.0 | 4.6 | | | | ug/L | 106 | Standard |
| | Se | 82 | 2414.5 | 2.4 | **18.9722** | 0.358 | 1.9 | ug/L | 19 | Standard |
| | Kr | 83 | 16.7 | 17.3 | | | | ug/L | 16 | Standard |
| | Y | 89 | 411861.1 | 1.7 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 332945.3 | 3.0 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 399843.1 | 0.4 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 94834.4 | 0.5 | **42.9908** | 0.367 | 0.9 | ug/L | 74 | Standard |
| | Ba | 137 | 160305.1 | 1.1 | **42.8052** | 0.088 | 0.2 | ug/L | 100 | Standard |
| > | Tb | 159 | 439957.4 | 1.3 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 469530.0 | 0.8 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1905720.5 | 0.3 | **49.4282** | 0.721 | 1.5 | ug/L | 1824 | Standard |
| | Bi | 209 | 312780.8 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 473873.0 | 0.4 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6004.9 | 1.3 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1463.7 | 4.1 | **40.4772** | 1.471 | 3.6 | ug/L | 0 | KED |
| | Y-1 | 89 | 11408.9 | 1.8 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 72322.6 | 1.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7926.6 | 0.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 90.836 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 97.308 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 94.893 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 106.790 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-222-01PS 50X

Sample Date/Time: Tuesday, October 22, 2019 11:59:24
Report Date/Time: Tuesday, October 22, 2019 12:01:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexIONData\Sample\X191022B.sam
Method File: C:\NexIONData\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 172602.8 | 0.3 | | | | ug/L | 195039 | Standard |
| | As | 75 | 39296.1 | 2.1 | **66.5529** | 1.217 | 1.8 | ug/L | 1314 | Standard |
| | As-1 | 75 | 44198.4 | 1.3 | **63.3822** | 0.690 | 1.1 | ug/L | 3 | Standard |
| | Se | 77 | 2561.2 | 3.3 | **50.8506** | 1.569 | 3.1 | ug/L | 28 | Standard |
| | Se | 78 | 7510.6 | 6.5 | **31.6209** | 2.409 | 7.6 | ug/L | 1537 | Standard |
| | Br | 79 | 104.3 | 17.3 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4798.1 | 1.3 | **38.8241** | 0.381 | 1.0 | ug/L | 19 | Standard |
| | Kr | 83 | 19.7 | 5.9 | | | | ug/L | 16 | Standard |
| | Y | 89 | 398069.1 | 4.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 313964.6 | 4.6 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 430011.7 | 0.8 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 195170.6 | 1.0 | **83.6352** | 0.801 | 1.0 | ug/L | 74 | Standard |
| | Ba | 137 | 327236.6 | 0.8 | **82.5962** | 0.047 | 0.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 465562.2 | 0.8 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 491870.7 | 2.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1944463.2 | 0.5 | **47.6525** | 0.211 | 0.4 | ug/L | 1824 | Standard |
| | Bi | 209 | 325454.3 | 0.9 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 507327.3 | 0.5 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6449.5 | 1.5 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 2716.9 | 0.4 | **69.9750** | 0.928 | 1.3 | ug/L | 0 | KED |
| | Y-1 | 89 | 12579.5 | 0.4 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 76300.6 | 1.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 8332.9 | 0.6 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 88.497 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 104.650 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 100.416 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 114.696
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**
Sample Date/Time: Tuesday, October 22, 2019 12:03:24
Report Date/Time: Tuesday, October 22, 2019 12:05:04
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 179090.1 | 2.8 | | | | ug/L | 195039 | Standard |
| | As | 75 | 24114.8 | 4.5 | **38.5221** | 0.743 | 1.9 | ug/L | 1314 | Standard |
| | As-1 | 75 | 27596.6 | 2.1 | **38.1476** | 0.592 | 1.6 | ug/L | 3 | Standard |
| | Se | 77 | 1997.1 | 3.7 | **38.0876** | 0.479 | 1.3 | ug/L | 28 | Standard |
| | Se | 78 | 9011.8 | 4.4 | **37.6531** | 0.709 | 1.9 | ug/L | 1537 | Standard |
| | Br | 79 | 93.0 | 3.9 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4758.5 | 2.1 | **37.1360** | 1.791 | 4.8 | ug/L | 19 | Standard |
| | Kr | 83 | 17.0 | 11.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 427775.1 | 1.2 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 351133.1 | 1.4 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 357769.9 | 0.6 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 77274.4 | 0.5 | **38.6828** | 0.162 | 0.4 | ug/L | 74 | Standard |
| | Ba | 137 | 129995.8 | 0.2 | **38.3340** | 0.159 | 0.4 | ug/L | 100 | Standard |
| > | Tb | 159 | 398355.4 | 0.3 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 423910.5 | 1.2 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1363466.0 | 0.4 | **39.0433** | 0.285 | 0.7 | ug/L | 1824 | Standard |
| | Bi | 209 | 300215.8 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 434842.3 | 0.4 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5529.7 | 1.2 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1274.1 | 1.9 | **38.2617** | 0.514 | 1.3 | ug/L | 0 | KED |
| | Y-1 | 89 | 10208.0 | 1.2 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 67771.7 | 0.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7414.1 | 0.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.823 |
| | 75 | As | 96.305 | |
| | 75 | As-1 | 95.369 | |
| | 77 | Se | 95.219 | |
| | 78 | Se | 94.133 | |
| | 79 | Br | | |
| | 82 | Se | 92.840 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 87.069 |
| | 135 | Ba | 96.707 | |
| | 137 | Ba | 95.835 | |
| > | 159 | Tb | | 85.920 |
| | 165 | Ho | | |
| | 208 | Pb | 97.608 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 98.340 |
| 75As-2 | 95.654 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Tuesday, October 22, 2019 12:07:26
Report Date/Time: Tuesday, October 22, 2019 12:09:06
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 186533.7 | 1.4 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1355.6 | 3.9 | **0.1586** | 0.057 | 35.9 | ug/L | 1314 | Standard |
| | As-1 | 75 | 14.1 | 69.8 | **0.0151** | 0.013 | 85.7 | ug/L | 3 | Standard |
| | Se | 77 | 20.3 | 20.5 | **-0.1201** | 0.073 | 60.7 | ug/L | 28 | Standard |
| | Se | 78 | 1568.8 | 3.4 | **0.4697** | 0.147 | 31.3 | ug/L | 1537 | Standard |
| | Br | 79 | 85.0 | 11.3 | | | | ug/L | 106 | Standard |
| | Se | 82 | 18.0 | 25.5 | **0.0010** | 0.034 | 3309.5 | ug/L | 19 | Standard |
| | Kr | 83 | 14.0 | 25.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 440343.7 | 3.7 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 366186.2 | 4.8 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 376074.9 | 0.3 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 81.3 | 1.9 | **0.0069** | 0.001 | 9.7 | ug/L | 74 | Standard |
| | Ba | 137 | 98.0 | 12.8 | **0.0021** | 0.004 | 170.4 | ug/L | 100 | Standard |
| > | Tb | 159 | 419177.4 | 0.6 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 446220.9 | 0.6 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1650.7 | 1.6 | **0.0000** | 0.001 | 1183.4 | ug/L | 1824 | Standard |
| | Bi | 209 | 313927.2 | 0.7 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 449339.6 | 0.9 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5830.9 | 2.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1.0 | 173.2 | **0.0192** | 0.050 | 261.8 | ug/L | 0 | KED |
| | Y-1 | 89 | 10776.4 | 1.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 70726.0 | 0.6 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7665.7 | 1.4 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 95.639 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 91.524 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 90.411 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 103.695 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-02 25X 17SM1**

Sample Date/Time: Tuesday, October 22, 2019 12:15:22
Report Date/Time: Tuesday, October 22, 2019 12:17:02
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150788.0 | 0.6 | | | | ug/L | 195039 | Standard |
| | As | 75 | 18492.6 | 3.0 | **34.9163** | 1.129 | 3.2 | ug/L | 1314 | Standard |
| | As-1 | 75 | 17361.7 | 3.1 | **28.4988** | 0.913 | 3.2 | ug/L | 3 | Standard |
| | Se | 77 | 37.3 | 22.8 | **0.3598** | 0.194 | 53.9 | ug/L | 28 | Standard |
| | Se | 78 | 1432.7 | 2.9 | **1.4395** | 0.212 | 14.7 | ug/L | 1537 | Standard |
| | Br | 79 | 315.0 | 1.8 | | | | ug/L | 106 | Standard |
| | Se | 82 | 55.7 | 9.9 | **0.3834** | 0.053 | 13.7 | ug/L | 19 | Standard |
| | Kr | 83 | 30.0 | 8.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 400682.0 | 1.3 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 292382.5 | 2.4 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 330858.1 | 0.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 143855.7 | 0.9 | **75.8331** | 1.272 | 1.7 | ug/L | 74 | Standard |
| | Ba | 137 | 242874.5 | 0.4 | **75.4108** | 0.771 | 1.0 | ug/L | 100 | Standard |
| > | Tb | 159 | 378471.4 | 0.8 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 395662.4 | 0.4 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 910154.0 | 0.2 | **27.4194** | 0.260 | 0.9 | ug/L | 1824 | Standard |
| | Bi | 209 | 263371.0 | 0.9 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 446128.6 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 4939.5 | 3.1 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1118.4 | 1.4 | **37.6202** | 1.119 | 3.0 | ug/L | 0 | KED |
| | Y-1 | 89 | 10584.3 | 1.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 59141.5 | 1.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 6539.1 | 2.0 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 77.312 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 80.520 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 81.631 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 87.843 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-03 25X**

Sample Date/Time: Tuesday, October 22, 2019 12:19:24
Report Date/Time: Tuesday, October 22, 2019 12:21:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166932.6 | 4.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 16520.1 | 6.6 | **27.7642** | 0.638 | 2.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 15253.8 | 6.8 | **22.6002** | 0.529 | 2.3 | ug/L | 3 | Standard |
| | Se | 77 | 47.3 | 14.8 | **0.4864** | 0.162 | 33.4 | ug/L | 28 | Standard |
| | Se | 78 | 1579.8 | 2.4 | **1.4113** | 0.185 | 13.1 | ug/L | 1537 | Standard |
| | Br | 79 | 287.0 | 2.1 | | | | ug/L | 106 | Standard |
| | Se | 82 | 53.3 | 15.7 | **0.3157** | 0.087 | 27.5 | ug/L | 19 | Standard |
| | Kr | 83 | 34.0 | 12.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 443031.3 | 1.9 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 314126.1 | 1.3 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 345866.5 | 0.2 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 127796.1 | 0.8 | **63.5236** | 0.499 | 0.8 | ug/L | 74 | Standard |
| | Ba | 137 | 215424.9 | 1.2 | **63.0742** | 0.684 | 1.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 401312.9 | 0.7 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 418332.6 | 0.7 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 149353.1 | 1.3 | **4.2055** | 0.079 | 1.9 | ug/L | 1824 | Standard |
| | Bi | 209 | 278670.5 | 0.6 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 459668.4 | 1.0 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5225.0 | 1.1 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 901.4 | 1.4 | **28.6464** | 0.321 | 1.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 11393.2 | 2.1 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 63058.5 | 0.3 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7118.1 | 2.1 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 85.589 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 84.172 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 86.558 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 92.919 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-04 25X**

Sample Date/Time: Tuesday, October 22, 2019 12:23:25
Report Date/Time: Tuesday, October 22, 2019 12:25:04
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 171518.3 | 2.6 | | | | ug/L | 195039 | Standard |
| | As | 75 | 30148.1 | 3.0 | **50.9180** | 0.201 | 0.4 | ug/L | 1314 | Standard |
| | As-1 | 75 | 28950.0 | 3.0 | **41.7748** | 0.158 | 0.4 | ug/L | 3 | Standard |
| | Se | 77 | 97.3 | 8.0 | **1.4652** | 0.106 | 7.2 | ug/L | 28 | Standard |
| | Se | 78 | 1862.8 | 3.2 | **2.6464** | 0.218 | 8.2 | ug/L | 1537 | Standard |
| | Br | 79 | 176.7 | 4.1 | | | | ug/L | 106 | Standard |
| | Se | 82 | 185.7 | 3.2 | **1.3837** | 0.065 | 4.7 | ug/L | 19 | Standard |
| | Kr | 83 | 13.3 | 15.6 | | | | ug/L | 16 | Standard |
| | Y | 89 | 406412.3 | 2.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 339518.7 | 3.3 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 355035.4 | 0.9 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 61313.0 | 1.1 | **30.5702** | 0.290 | 0.9 | ug/L | 74 | Standard |
| | Ba | 137 | 103350.2 | 0.8 | **30.3558** | 0.037 | 0.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 399865.5 | 0.7 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 423339.8 | 1.1 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 106006.2 | 0.4 | **2.9826** | 0.016 | 0.5 | ug/L | 1824 | Standard |
| | Bi | 209 | 284874.6 | 1.2 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 431090.2 | 0.7 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5419.0 | 0.8 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1724.8 | 2.1 | **52.8610** | 1.107 | 2.1 | ug/L | 0 | KED |
| | Y-1 | 89 | 10011.8 | 1.2 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 65081.6 | 0.5 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7277.8 | 0.3 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 87.941 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 86.404 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 86.246 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 96.371 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-05 100X**

Sample Date/Time: Tuesday, October 22, 2019 12:27:26
Report Date/Time: Tuesday, October 22, 2019 12:29:05
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022B.sam
Method File: C:\NexION\Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 180156.9 | 1.1 | | | | ug/L | 195039 | Standard |
| | As | 75 | 37992.8 | 4.7 | **61.5008** | 2.919 | 4.7 | ug/L | 1314 | Standard |
| | As-1 | 75 | 36676.7 | 4.7 | **50.3908** | 2.309 | 4.6 | ug/L | 3 | Standard |
| | Se | 77 | 62.7 | 7.5 | **0.7076** | 0.102 | 14.5 | ug/L | 28 | Standard |
| | Se | 78 | 1862.1 | 4.6 | **2.1812** | 0.434 | 19.9 | ug/L | 1537 | Standard |
| | Br | 79 | 178.0 | 8.5 | | | | ug/L | 106 | Standard |
| | Se | 82 | 136.3 | 6.7 | **0.9261** | 0.061 | 6.6 | ug/L | 19 | Standard |
| | Kr | 83 | 10.3 | 40.3 | | | | ug/L | 16 | Standard |
| | Y | 89 | 429117.5 | 2.7 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 350604.4 | 1.8 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 360474.0 | 0.5 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 31645.0 | 0.8 | **15.6922** | 0.312 | 2.0 | ug/L | 74 | Standard |
| | Ba | 137 | 53891.5 | 0.9 | **15.7466** | 0.336 | 2.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 401714.3 | 1.2 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 426474.6 | 0.5 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 236323.7 | 0.4 | **6.6739** | 0.074 | 1.1 | ug/L | 1824 | Standard |
| | Bi | 209 | 295002.9 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 437724.2 | 1.5 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5494.1 | 0.6 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 2125.8 | 3.2 | **64.2673** | 2.234 | 3.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 10406.5 | 1.1 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 67175.2 | 1.2 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7489.8 | 0.9 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 92.370 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 87.727 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 86.645 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 97.705 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-222-06 50X

Sample Date/Time: Tuesday, October 22, 2019 12:31:26
Report Date/Time: Tuesday, October 22, 2019 12:33:06
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 187633.4 | 3.3 | | | | ug/L | 195039 | Standard |
| \| | As | 75 | 34442.2 | 4.8 | **53.2554** | 1.270 | 2.4 | ug/L | 1314 | Standard |
| \| | As-1 | 75 | 33012.8 | 4.9 | **43.5376** | 0.995 | 2.3 | ug/L | 3 | Standard |
| \| | Se | 77 | 35.3 | 24.1 | **0.1519** | 0.135 | 89.0 | ug/L | 28 | Standard |
| \| | Se | 78 | 1699.1 | 4.0 | **1.0462** | 0.295 | 28.2 | ug/L | 1537 | Standard |
| \| | Br | 79 | 259.0 | 2.8 | | | | ug/L | 106 | Standard |
| ⌊ | Se | 82 | 29.3 | 27.8 | **0.0839** | 0.055 | 65.9 | ug/L | 19 | Standard |
| | Kr | 83 | 35.7 | 14.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 493535.7 | 2.5 | | | | ug/L | 468205 | Standard |
| ⌈ | Rh | 103 | 361163.1 | 2.2 | | | | ug/L | 387259 | Standard |
| ⌊> | In | 115 | 368245.8 | 1.3 | | | | ug/L | 410904 | Standard |
| ⌈ | Ba | 135 | 60603.3 | 0.9 | **28.5118** | 0.454 | 1.6 | ug/L | 74 | Standard |
| \| | Ba | 137 | 103022.5 | 0.3 | **28.5526** | 0.258 | 0.9 | ug/L | 100 | Standard |
| \|> | Tb | 159 | 423772.9 | 0.9 | | | | ug/L | 463634 | Standard |
| \| | Ho | 165 | 446957.0 | 0.3 | | | | ug/L | 491597 | Standard |
| \| | Pb | 208 | 106335.5 | 1.4 | **2.8206** | 0.018 | 0.6 | ug/L | 1824 | Standard |
| \| | Bi | 209 | 296477.8 | 1.7 | | | | ug/L | 342298 | Standard |
| ⌊ | Th | 232 | 475741.8 | 0.7 | | | | ug/L | 485916 | Standard |
| ⌈> | Ge-1 | 72 | 5736.8 | 0.4 | | | | ug/L | 5623 | KED |
| ⌊ | As-2 | 75 | 1900.5 | 3.8 | **55.0163** | 2.037 | 3.7 | ug/L | 0 | KED |
| | Y-1 | 89 | 11573.4 | 0.7 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 67980.4 | 0.7 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7635.3 | 1.1 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| ⌈> | 72Ge | | 96.203 |
| \| | 75As | | |
| \| | 75As-1 | | |
| \| | 77Se | | |
| \| | 78Se | | |
| \| | 79Br | | |
| ⌊ | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| ⌈ | 103Rh | | |
| ⌊> | 115In | | 89.619 |
| ⌈ | 135Ba | | |
| \| | 137Ba | | |
| \|> | 159Tb | | 91.402 |
| \| | 165Ho | | |
| \| | 208Pb | | |
| \| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 102.022 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-07 200X**

Sample Date/Time: Tuesday, October 22, 2019 12:35:27
Report Date/Time: Tuesday, October 22, 2019 12:37:06
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 190783.2 | 0.5 | | | | ug/L | 195039 | Standard |
| | As | 75 | 33950.1 | 3.8 | **51.5742** | 1.837 | 3.6 | ug/L | 1314 | Standard |
| | As-1 | 75 | 32511.4 | 3.8 | **42.1763** | 1.447 | 3.4 | ug/L | 3 | Standard |
| | Se | 77 | 28.7 | 23.2 | **0.0228** | 0.119 | 520.3 | ug/L | 28 | Standard |
| | Se | 78 | 1682.4 | 3.3 | **0.8332** | 0.236 | 28.3 | ug/L | 1537 | Standard |
| | Br | 79 | 163.3 | 8.2 | | | | ug/L | 106 | Standard |
| | Se | 82 | 19.3 | 26.5 | **0.0078** | 0.037 | 477.2 | ug/L | 19 | Standard |
| | Kr | 83 | 15.3 | 3.8 | | | | ug/L | 16 | Standard |
| | Y | 89 | 455090.5 | 0.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 369104.0 | 0.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 375954.1 | 1.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 32739.1 | 0.5 | **15.5107** | 0.148 | 1.0 | ug/L | 74 | Standard |
| | Ba | 137 | 55100.1 | 0.5 | **15.3816** | 0.195 | 1.3 | ug/L | 100 | Standard |
| > | Tb | 159 | 420431.1 | 1.4 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 444916.6 | 1.9 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 24985.3 | 1.4 | **0.6338** | 0.004 | 0.7 | ug/L | 1824 | Standard |
| | Bi | 209 | 301919.2 | 0.9 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 452213.6 | 0.9 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5739.2 | 1.2 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1853.8 | 4.1 | **53.6519** | 2.359 | 4.4 | ug/L | 0 | KED |
| | Y-1 | 89 | 10967.5 | 1.0 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 69545.9 | 0.9 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7749.8 | 2.6 | | | | ug/L | 7067 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 97.818 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 91.494 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 90.682 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 102.064 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**
Sample Date/Time: Tuesday, October 22, 2019 12:39:28
Report Date/Time: Tuesday, October 22, 2019 12:41:08
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 188598.9 | 2.4 | | | | ug/L | 195039 | Standard |
| | As | 75 | 25440.5 | 6.2 | **38.5857** | 1.650 | 4.3 | ug/L | 1314 | Standard |
| | As-1 | 75 | 29051.5 | 3.2 | **38.1236** | 0.560 | 1.5 | ug/L | 3 | Standard |
| | Se | 77 | 2075.2 | 6.7 | **37.5530** | 1.662 | 4.4 | ug/L | 28 | Standard |
| | Se | 78 | 9457.5 | 6.3 | **37.4940** | 2.029 | 5.4 | ug/L | 1537 | Standard |
| | Br | 79 | 97.7 | 10.1 | | | | ug/L | 106 | Standard |
| | Se | 82 | 4975.9 | 1.5 | **36.8638** | 1.419 | 3.8 | ug/L | 19 | Standard |
| | Kr | 83 | 18.7 | 8.2 | | | | ug/L | 16 | Standard |
| | Y | 89 | 451965.6 | 1.5 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 370429.0 | 1.3 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 374722.8 | 1.0 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 81784.1 | 0.7 | **39.6263** | 0.403 | 1.0 | ug/L | 74 | Standard |
| | Ba | 137 | 137036.9 | 1.4 | **39.1104** | 0.308 | 0.8 | ug/L | 100 | Standard |
| > | Tb | 159 | 411621.8 | 1.8 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 439188.1 | 1.2 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1405342.4 | 1.4 | **38.9466** | 0.177 | 0.5 | ug/L | 1824 | Standard |
| | Bi | 209 | 306537.0 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 442432.3 | 0.1 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 5850.9 | 0.7 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1334.1 | 2.2 | **37.8623** | 0.570 | 1.5 | ug/L | 0 | KED |
| | Y-1 | 89 | 10749.4 | 1.3 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 70805.7 | 1.0 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 7823.4 | 1.3 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 96.698 |
| | 75 | As | 96.464 | |
| | 75 | As-1 | 95.309 | |
| | 77 | Se | 93.883 | |
| | 78 | Se | 93.735 | |
| | 79 | Br | | |
| | 82 | Se | 92.159 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 91.195 |
| | 135 | Ba | 99.066 | |
| | 137 | Ba | 97.776 | |
| > | 159 | Tb | | 88.782 |
| | 165 | Ho | | |
| | 208 | Pb | 97.367 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 104.050 |
| 75As-2 | 94.656 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Tuesday, October 22, 2019 12:43:29
Report Date/Time: Tuesday, October 22, 2019 12:45:10
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022B.sam
Method File: C:\NexION Data\Method\X191022B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 197613.6 | 3.1 | | | | ug/L | 195039 | Standard |
| | As | 75 | 1463.6 | 4.9 | 0.2001 | 0.042 | 21.0 | ug/L | 1314 | Standard |
| | As-1 | 75 | 24.9 | 56.1 | 0.0280 | 0.018 | 64.8 | ug/L | 3 | Standard |
| | Se | 77 | 25.3 | 21.7 | -0.0517 | 0.104 | 200.5 | ug/L | 28 | Standard |
| | Se | 78 | 1672.4 | 4.9 | 0.5154 | 0.145 | 28.1 | ug/L | 1537 | Standard |
| | Br | 79 | 103.0 | 10.1 | | | | ug/L | 106 | Standard |
| | Se | 82 | 15.7 | 31.5 | -0.0223 | 0.038 | 169.7 | ug/L | 19 | Standard |
| | Kr | 83 | 15.7 | 32.1 | | | | ug/L | 16 | Standard |
| | Y | 89 | 460775.0 | 0.8 | | | | ug/L | 468205 | Standard |
| | Rh | 103 | 385454.1 | 0.7 | | | | ug/L | 387259 | Standard |
| > | In | 115 | 390244.5 | 1.1 | | | | ug/L | 410904 | Standard |
| | Ba | 135 | 83.0 | 2.4 | 0.0069 | 0.001 | 9.9 | ug/L | 74 | Standard |
| | Ba | 137 | 94.7 | 4.4 | 0.0007 | 0.002 | 213.1 | ug/L | 100 | Standard |
| > | Tb | 159 | 427145.0 | 1.5 | | | | ug/L | 463634 | Standard |
| | Ho | 165 | 455631.4 | 0.6 | | | | ug/L | 491597 | Standard |
| | Pb | 208 | 1503.7 | 0.4 | -0.0047 | 0.001 | 15.4 | ug/L | 1824 | Standard |
| | Bi | 209 | 317267.5 | 0.8 | | | | ug/L | 342298 | Standard |
| | Th | 232 | 457878.2 | 1.0 | | | | ug/L | 485916 | Standard |
| > | Ge-1 | 72 | 6046.3 | 1.4 | | | | ug/L | 5623 | KED |
| | As-2 | 75 | 1.3 | 114.6 | 0.0271 | 0.042 | 156.3 | ug/L | 0 | KED |
| | Y-1 | 89 | 11156.0 | 1.6 | | | | ug/L | 9993 | KED |
| | Rh-1 | 103 | 73911.7 | 0.8 | | | | ug/L | 71706 | KED |
| | In-1 | 115 | 8156.3 | 0.7 | | | | ug/L | 7067 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 101.320 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 94.972 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.130 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 107.526 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Dataset Report

10-22-19
KDM

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexION Data\DataSet\X191022C\
Report Date/Time: Tuesday, October 22, 2019 14:18:34

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| | Blank | 12:50:06 Tue 22-O | Blank | C:\NexION Data\DataSet\X191022C\Blank.001 | |
| | Standard 2 | 12:52:09 Tue 22-O | Standard #2 | C:\NexION Data\DataSet\X191022C\Standard 2.002 | |
| | Standard 3 | 12:54:12 Tue 22-O | Standard #3 | C:\NexION Data\DataSet\X191022C\Standard 3.003 | |
| | Standard 5 | 12:56:15 Tue 22-O | Standard #5 | C:\NexION Data\DataSet\X191022C\Standard 5.004 | |
| | Standard 6 | 12:58:17 Tue 22-O | Standard #6 | C:\NexION Data\DataSet\X191022C\Standard 6.005 | |
| | Standard 7 | 13:00:19 Tue 22-O | Standard #7 | C:\NexION Data\DataSet\X191022C\Standard 7.006 | |
| | QC Std 1 | 13:03:12 Tue 22-O | QC Std #1 | C:\NexION Data\DataSet\X191022C\QC Std 1.007 | |
| | QC Std 2 | 13:06:05 Tue 22-O | QC Std #2 | C:\NexION Data\DataSet\X191022C\QC Std 2.008 | |
| | QC Std 4 | 13:08:07 Tue 22-O | QC Std #4 | C:\NexION Data\DataSet\X191022C\QC Std 4.009 | |
| | QC Std 6 | 13:11:00 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022C\QC Std 6.010 | |
| | QC Std 8 | 13:13:52 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022C\QC Std 8.011 | |
| | ICSA | 13:15:55 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\ICSA.012 | |
| | ICSAB | 13:24:31 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\ICSAB.013 | |
| | MB1018SH1 25X | 13:27:41 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\MB1018SH1 25X.014 | |
| | SB1018SH1 25X | 13:30:31 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\SB1018SH1 25X.015 | |
| | 10-222-01 25X | 13:33:23 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-01 25X.016 | |
| | 10-222-01D 25X | 13:36:13 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-01D 25X.017 | |
| | 10-222-01L 125X | 13:39:06 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-01L 125X.018 | |
| | 10-222-01MS 25X | 13:41:59 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-01MS 25X.019 | |
| | 10-222 01MSD 25X | 13:44:51 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222 01MSD 25X.020 | |
| | 10-222-01PS 25X | 13:47:44 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-01PS 25X.021 | |
| | QC Std 6 | 13:50:36 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022C\QC Std 6.022 | |
| | QC Std 8 | 13:53:29 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022C\QC Std 8.023 | |
| | 10-222-02 25X | 13:56:17 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-02 25X.024 | |
| | 10-222-03 25X | 13:59:08 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-03 25X.025 | |
| | 10-222-04 25X | 14:02:00 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-04 25X.026 | |
| | 10-222-05 25X | 14:04:51 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-05 25X.027 | |
| | 10-222-06 25X | 14:07:42 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-06 25X.028 | |
| | 10-222-07 25X | 14:10:33 Tue 22-O | Sample | C:\NexION Data\DataSet\X191022C\10-222-07 25X.029 | |
| | QC Std 6 | 14:13:25 Tue 22-O | QC Std #6 | C:\NexION Data\DataSet\X191022C\QC Std 6.030 | |
| | QC Std 8 | 14:16:17 Tue 22-O | QC Std #8 | C:\NexION Data\DataSet\X191022C\QC Std 8.031 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ag | 106.905 | Linear Thru Zero | 0.03 | 0.00 | 0.999946 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Tuesday, October 22, 2019 12:50:06
Report Date/Time: Tuesday, October 22, 2019 12:50:37
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 193093.4 | 1.3 | | | | ug/L | | Standard |
| | Y | 89 | 411423.2 | 2.9 | | | | ug/L | | Standard |
| ⌈> | Rh | 103 | 389174.6 | 1.9 | | | | ug/L | | Standard |
| ⌊ | Ag | 107 | 372.0 | 3.3 | | | | ug/L | | Standard |
| | In | 115 | 400026.6 | 1.5 | | | | ug/L | | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Tuesday, October 22, 2019 12:52:09
Report Date/Time: Tuesday, October 22, 2019 12:52:40
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 204306.1 | 1.4 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 440872.8 | 1.5 | | | | ug/L | 411423 | Standard |
| > | **Rh** | 103 | 409927.5 | 1.8 | | | | ug/L | 389175 | Standard |
| | **Ag** | 107 | 4870.5 | 1.2 | **0.5000** | 0.014 | 2.8 | ug/L | 372 | Standard |
| | **In** | 115 | 415226.0 | 0.6 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Tuesday, October 22, 2019 12:54:12
Report Date/Time: Tuesday, October 22, 2019 12:54:43
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 194409.2 | 0.1 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 415885.3 | 0.8 | | | | ug/L | 411423 | Standard |
| > | Rh | 103 | 385841.4 | 1.3 | | | | ug/L | 389175 | Standard |
| | Ag | 107 | 18866.1 | 0.8 | 2.0104 | 0.023 | 1.1 | ug/L | 372 | Standard |
| | In | 115 | 401855.7 | 1.0 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Tuesday, October 22, 2019 12:56:15
Report Date/Time: Tuesday, October 22, 2019 12:56:46
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 174641.4 | 1.1 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 384815.1 | 0.6 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 360311.9 | 1.0 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 181773.1 | 1.9 | **20.0111** | 0.241 | 1.2 | ug/L | 372 | Standard |
| | **In** | 115 | 371187.9 | 0.4 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Tuesday, October 22, 2019 12:58:17
Report Date/Time: Tuesday, October 22, 2019 12:58:48
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 179078.4 | 1.9 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 384108.7 | 2.0 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 362143.4 | 2.6 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 371561.5 | 1.7 | **40.1482** | 0.471 | 1.2 | ug/L | 372 | Standard |
| | In | 115 | 378312.9 | 0.7 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Tuesday, October 22, 2019 13:00:19
Report Date/Time: Tuesday, October 22, 2019 13:00:50
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 172948.4 | 1.5 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 378240.3 | 2.5 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 352376.6 | 1.4 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 924601.6 | 1.7 | **100.4450** | 2.038 | 2.0 | ug/L | 372 | Standard |
| | In | 115 | 359562.3 | 1.1 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 1

Sample Date/Time: Tuesday, October 22, 2019 13:03:12
Report Date/Time: Tuesday, October 22, 2019 13:03:43
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 171239.9 | 2.3 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 381410.2 | 1.4 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 354811.2 | 1.2 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 444780.1 | 0.6 | **47.9653** | 0.270 | 0.6 | ug/L | 372 | Standard |
| | In | 115 | 360976.1 | 1.0 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 91.170 |
| ⌊ | 107Ag | 95.931 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 2

Sample Date/Time: Tuesday, October 22, 2019 13:06:05
Report Date/Time: Tuesday, October 22, 2019 13:06:36
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 186206.3 | 3.4 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 404615.1 | 1.8 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 373013.3 | 1.3 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 1001.7 | 4.4 | **0.0662** | 0.004 | 6.6 | ug/L | 372 | Standard |
| | **In** | 115 | 379070.6 | 0.8 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 95.847 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 4

Sample Date/Time: Tuesday, October 22, 2019 13:08:07
Report Date/Time: Tuesday, October 22, 2019 13:08:38
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 190899.9 | 1.5 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 414398.8 | 0.2 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 388848.9 | 1.2 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 5066.2 | 2.5 | **0.4623** | 0.009 | 2.0 | ug/L | 372 | Standard |
| | **In** | 115 | 400632.7 | 0.2 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 99.916 |
| ⌊ | 107 | Ag | 92.451 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 22, 2019 13:11:00
Report Date/Time: Tuesday, October 22, 2019 13:11:31
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 178185.2 | 1.4 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 392259.6 | 0.6 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 360611.3 | 1.8 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 357863.6 | 1.1 | **37.9686** | 0.675 | 1.8 | ug/L | 372 | Standard |
| | In | 115 | 365960.5 | 1.5 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 92.661 |
| ⌊ | 107Ag | 94.921 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Tuesday, October 22, 2019 13:13:52
Report Date/Time: Tuesday, October 22, 2019 13:14:24
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 181933.1 | 2.0 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 397267.4 | 0.5 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 375620.7 | 1.4 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 859.7 | 3.8 | **0.0510** | 0.002 | 4.3 | ug/L | 372 | Standard |
| | **In** | 115 | 379552.3 | 0.2 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 96.517 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Tuesday, October 22, 2019 13:15:55
Report Date/Time: Tuesday, October 22, 2019 13:16:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 148569.3 | 1.2 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 323223.4 | 1.7 | | | | ug/L | 411423 | Standard |
| [> | **Rh** | 103 | 274319.5 | 0.8 | | | | ug/L | 389175 | Standard |
| [ | **Ag** | 107 | 554.3 | 10.4 | **0.0408** | 0.009 | 20.8 | ug/L | 372 | Standard |
| | **In** | 115 | 314220.2 | 1.1 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 70.488 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: ICSAB**

Sample Date/Time: Tuesday, October 22, 2019 13:24:31
Report Date/Time: Tuesday, October 22, 2019 13:25:01
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 152608.9 | 1.3 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 355755.6 | 0.5 | | | | ug/L | 411423 | Standard |
| [> | Rh | 103 | 306982.0 | 0.4 | | | | ug/L | 389175 | Standard |
| [ | Ag | 107 | 266641.3 | 1.9 | **33.2208** | 0.478 | 1.4 | ug/L | 372 | Standard |
| | In | 115 | 323753.5 | 0.5 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 78.880 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1018SH1 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:27:41
Report Date/Time: Tuesday, October 22, 2019 13:28:11
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 174536.5 | 0.9 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 329261.8 | 3.7 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 313750.4 | 2.2 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 1861.1 | 0.9 | **0.1906** | 0.007 | 3.6 | ug/L | 372 | Standard |
| | **In** | 115 | 480149.7 | 0.6 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 80.619 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1018SH1 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:30:31
Report Date/Time: Tuesday, October 22, 2019 13:31:01
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 168887.1 | 0.7 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 325525.2 | 2.5 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 313743.0 | 1.9 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 163844.6 | 1.2 | **19.9615** | 0.145 | 0.7 | ug/L | 372 | Standard |
| | **In** | 115 | 453917.1 | 0.3 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 80.618 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:33:23
Report Date/Time: Tuesday, October 22, 2019 13:33:53
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 170739.8 | 1.5 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 357208.5 | 2.2 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 296468.6 | 2.1 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 12306.0 | 1.4 | **1.5534** | 0.049 | 3.2 | ug/L | 372 | Standard |
| | In | 115 | 459893.8 | 0.4 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 76.179 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01D 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:36:13
Report Date/Time: Tuesday, October 22, 2019 13:36:44
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 168846.4 | 1.0 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 348731.7 | 2.1 | | | | ug/L | 411423 | Standard |
| > | **Rh** | 103 | 285912.3 | 2.1 | | | | ug/L | 389175 | Standard |
| | **Ag** | 107 | 13654.5 | 3.3 | **1.7934** | 0.098 | 5.5 | ug/L | 372 | Standard |
| | **In** | 115 | 452701.0 | 1.7 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 73.466 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01L 125X**

Sample Date/Time: Tuesday, October 22, 2019 13:39:06
Report Date/Time: Tuesday, October 22, 2019 13:39:37
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 176130.6 | 1.4 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 368915.8 | 1.1 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 339592.9 | 0.4 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 2742.9 | 1.8 | **0.2727** | 0.005 | 1.8 | ug/L | 372 | Standard |
| | **In** | 115 | 406759.2 | 0.4 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 87.260 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01MS 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:41:59
Report Date/Time: Tuesday, October 22, 2019 13:42:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 167583.9 | 0.1 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 351917.5 | 1.5 | | | | ug/L | 411423 | Standard |
| [> | Rh | 103 | 291738.2 | 0.5 | | | | ug/L | 389175 | Standard |
| [ | Ag | 107 | 158164.2 | 1.5 | **20.7227** | 0.322 | 1.6 | ug/L | 372 | Standard |
| | In | 115 | 447916.9 | 1.1 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| [> | 103 | Rh | | 74.963 |
| [ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222 01MSD 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:44:51
Report Date/Time: Tuesday, October 22, 2019 13:45:22
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 167492.8 | 0.5 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 361388.0 | 2.2 | | | | ug/L | 411423 | Standard |
| [> | **Rh** | 103 | 294175.7 | 3.4 | | | | ug/L | 389175 | Standard |
| [ | **Ag** | 107 | 160041.8 | 2.4 | **20.8013** | 0.362 | 1.7 | ug/L | 372 | Standard |
| | **In** | 115 | 439480.8 | 0.9 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| [> | 103 | Rh | | 75.590 |
| [ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-01PS 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:47:44
Report Date/Time: Tuesday, October 22, 2019 13:48:14
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 171789.4 | 2.1 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 362137.4 | 2.0 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 299882.6 | 0.5 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 330890.3 | 1.7 | **42.2122** | 0.604 | 1.4 | ug/L | 372 | Standard |
| | In | 115 | 451239.3 | 0.6 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 77.056 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Tuesday, October 22, 2019 13:50:36
Report Date/Time: Tuesday, October 22, 2019 13:51:07
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 185431.7 | 2.8 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 402945.2 | 2.9 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 370570.8 | 3.1 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 368253.9 | 1.7 | **38.0261** | 0.576 | 1.5 | ug/L | 372 | Standard |
| | In | 115 | 370837.7 | 1.3 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 95.220 |
| ⌊ | 107Ag | 95.065 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Tuesday, October 22, 2019 13:53:29
Report Date/Time: Tuesday, October 22, 2019 13:54:00
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 194308.9 | 0.6 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 413226.5 | 0.8 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 384656.4 | 2.4 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 1615.8 | 3.2 | 0.1243 | 0.005 | 3.9 | ug/L | 372 | Standard |
| | In | 115 | 392382.3 | 0.8 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 98.839 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-02 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:56:17
Report Date/Time: Tuesday, October 22, 2019 13:56:48
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 176155.9 | 1.4 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 367976.2 | 2.3 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 313725.7 | 2.4 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 28319.4 | 1.6 | **3.4212** | 0.105 | 3.1 | ug/L | 372 | Standard |
| | **In** | 115 | 474342.1 | 0.9 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 80.613 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-03 25X**

Sample Date/Time: Tuesday, October 22, 2019 13:59:08
Report Date/Time: Tuesday, October 22, 2019 13:59:39
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 179728.9 | 0.8 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 385943.9 | 2.0 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 305335.0 | 3.6 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 13111.0 | 0.5 | **1.6090** | 0.060 | 3.7 | ug/L | 372 | Standard |
| | **In** | 115 | 473577.9 | 0.6 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 78.457 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-222-04 25X

Sample Date/Time: Tuesday, October 22, 2019 14:02:00
Report Date/Time: Tuesday, October 22, 2019 14:02:31
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 186720.0 | 2.0 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 354472.5 | 1.5 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 330604.5 | 0.6 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 71674.4 | 1.2 | **8.2645** | 0.050 | 0.6 | ug/L | 372 | Standard |
| | **In** | 115 | 471283.4 | 1.1 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 84.950 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-05 25X**

Sample Date/Time: Tuesday, October 22, 2019 14:04:51
Report Date/Time: Tuesday, October 22, 2019 14:05:22
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 175072.3 | 2.4 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 346418.3 | 3.0 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 313997.2 | 4.2 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 127226.1 | 4.5 | **15.4803** | 0.414 | 2.7 | ug/L | 372 | Standard |
| | In | 115 | 457940.1 | 2.0 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 80.683 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-222-06 25X**

Sample Date/Time: Tuesday, October 22, 2019 14:07:42
Report Date/Time: Tuesday, October 22, 2019 14:08:13
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 177117.3 | 1.4 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 386874.5 | 1.4 | | | | ug/L | 411423 | Standard |
| ⌈> | Rh | 103 | 308079.8 | 1.1 | | | | ug/L | 389175 | Standard |
| ⌊ | Ag | 107 | 2821.3 | 1.6 | **0.3140** | 0.002 | 0.6 | ug/L | 372 | Standard |
| | In | 115 | 455225.5 | 0.5 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 79.162 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-222-07 25X

Sample Date/Time: Tuesday, October 22, 2019 14:10:33
Report Date/Time: Tuesday, October 22, 2019 14:11:04
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191022C.sam
Method File: C:\NexION Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 179724.5 | 0.5 | | | | ug/L | 193093 | Standard |
| | Y | 89 | 378635.7 | 0.8 | | | | ug/L | 411423 | Standard |
| > | Rh | 103 | 310839.2 | 0.8 | | | | ug/L | 389175 | Standard |
| | Ag | 107 | 4210.6 | 1.1 | **0.4821** | 0.003 | 0.7 | ug/L | 372 | Standard |
| | In | 115 | 474111.2 | 0.2 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 79.871 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 22, 2019 14:13:25
Report Date/Time: Tuesday, October 22, 2019 14:13:56
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 201370.5 | 2.2 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 419122.1 | 2.1 | | | | ug/L | 411423 | Standard |
| ⌜> | **Rh** | 103 | 397152.0 | 2.5 | | | | ug/L | 389175 | Standard |
| ⌞ | **Ag** | 107 | 406990.1 | 1.1 | **39.2115** | 0.562 | 1.4 | ug/L | 372 | Standard |
| | **In** | 115 | 415887.3 | 1.1 | | | | ug/L | 400027 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌜> | 103 | Rh | | 102.050 |
| ⌞ | 107 | Ag | 98.029 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Tuesday, October 22, 2019 14:16:17
Report Date/Time: Tuesday, October 22, 2019 14:16:48
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191022C.sam
Method File: C:\NexION\Data\Method\X191022C.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 205107.5 | 1.7 | | | | ug/L | 193093 | Standard |
| | **Y** | 89 | 432197.7 | 1.7 | | | | ug/L | 411423 | Standard |
| ⌈> | **Rh** | 103 | 410055.0 | 1.2 | | | | ug/L | 389175 | Standard |
| ⌊ | **Ag** | 107 | 1962.1 | 4.6 | **0.1467** | 0.011 | 7.2 | ug/L | 372 | Standard |
| | **In** | 115 | 424774.3 | 1.2 | | | | ug/L | 400027 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 105.365 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 30, 2019

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 4296-008-01
Laboratory Reference No. 1910-363

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on October 26, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**Case Narrative**

Samples were collected on October 23 and 24, 2019 and received by the laboratory on October 26, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**ANALYTICAL REPORT FOR SAMPLES**

| Client ID | Laboratory ID | Matrix | Date Sampled | Date Received | Notes |
|---|---|---|---|---|---|
| SR02-CS-01-02 | 10-363-01 | Soil | 10-23-19 | 10-26-19 | |
| SR02-CS-02-02 | 10-363-02 | Soil | 10-23-19 | 10-26-19 | |
| SR02-CS-03-02 | 10-363-03 | Soil | 10-23-19 | 10-26-19 | |
| SR02-CS-04-02 | 10-363-04 | Soil | 10-23-19 | 10-26-19 | |
| SR02-CS-05-02 | 10-363-05 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-06-02 | 10-363-06 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-07-02 | 10-363-07 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-08-02 | 10-363-08 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-09-02 | 10-363-09 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-10-02 | 10-363-10 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-11-02 | 10-363-11 | Soil | 10-24-19 | 10-26-19 | |
| SR02-CS-12-02 | 10-363-12 | Soil | 10-24-19 | 10-26-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR02-CS-01-02** | | | | | |
| Laboratory ID: | 10-363-01 | | | | | |
| Arsenic | **61** | 0.72 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **10** | 0.29 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **32000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **5.6** | 0.29 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **480** | 29 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.21** | 0.029 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.35** | 0.29 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **ND** | 0.72 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-02-02** | | | | | |
| Laboratory ID: | 10-363-02 | | | | | |
| Arsenic | **27** | 0.30 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **59** | 0.74 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **35000** | 150 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **6.5** | 0.30 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **610** | 30 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.49** | 0.030 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.47** | 0.30 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **0.78** | 0.74 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-03-02** | | | | | |
| Laboratory ID: | 10-363-03 | | | | | |
| Arsenic | **36** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **99** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **23000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **4.4** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **830** | 27 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.35** | 0.027 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.49** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **0.98** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR02-CS-04-02** | | | | | |
| Laboratory ID: | 10-363-04 | | | | | |
| Arsenic | **12** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **98** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **21000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **3.7** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **660** | 27 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.043** | 0.027 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.34** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **ND** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-05-02** | | | | | |
| Laboratory ID: | 10-363-05 | | | | | |
| Arsenic | **33** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **61** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **35000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **5.5** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **570** | 27 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.36** | 0.027 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.50** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **1.7** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-06-02** | | | | | |
| Laboratory ID: | 10-363-06 | | | | | |
| Arsenic | **77** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **100** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **25000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **5.0** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **390** | 27 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.19** | 0.027 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.39** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **1.6** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR02-CS-07-02** | | | | | |
| Laboratory ID: | 10-363-07 | | | | | |
| Arsenic | **54** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **98** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **29000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **5.2** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **420** | 27 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.044** | 0.027 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **ND** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **0.89** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-08-02** | | | | | |
| Laboratory ID: | 10-363-08 | | | | | |
| Arsenic | **51** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **110** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **39000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **5.5** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **580** | 28 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.10** | 0.028 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.32** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **2.4** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-09-02** | | | | | |
| Laboratory ID: | 10-363-09 | | | | | |
| Arsenic | **52** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **79** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **18000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **9.3** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **350** | 27 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.16** | 0.027 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.64** | 0.27 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **7.7** | 0.68 | EPA 6020B | 10-28-19 | 10-28-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR02-CS-10-02** | | | | | |
| Laboratory ID: | 10-363-10 | | | | | |
| Arsenic | **50** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **150** | 1.4 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **21000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **7.2** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **360** | 28 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.047** | 0.028 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.67** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **1.5** | 0.71 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-11-02** | | | | | |
| Laboratory ID: | 10-363-11 | | | | | |
| Arsenic | **86** | 0.70 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **100** | 0.70 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **26000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **5.2** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **330** | 28 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.080** | 0.028 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.37** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **0.86** | 0.70 | EPA 6020B | 10-28-19 | 10-28-19 | |
| **Client ID:** | **SR02-CS-12-02** | | | | | |
| Laboratory ID: | 10-363-12 | | | | | |
| Arsenic | **23** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **150** | 1.4 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Iron | **24000** | 140 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Lead | **6.0** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Manganese | **510** | 28 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Mercury | **0.035** | 0.028 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Selenium | **0.42** | 0.28 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Silver | **0.77** | 0.69 | EPA 6020B | 10-28-19 | 10-28-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB1028SH1 | | | | | |
| Iron | **ND** | 2.5 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Manganese | **ND** | 0.50 | EPA 6010D | 10-28-19 | 10-29-19 | |
| Laboratory ID: | MB1028SM1 | | | | | |
| Arsenic | **ND** | 0.13 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Barium | **ND** | 0.13 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Lead | **ND** | 0.13 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Selenium | **ND** | 0.13 | EPA 6020B | 10-28-19 | 10-28-19 | |
| Laboratory ID: | MB1028S2 | | | | | |
| Mercury | **ND** | 0.025 | EPA 7471B | 10-28-19 | 10-28-19 | |
| Laboratory ID: | MB1028SH1 | | | | | |
| Silver | **ND** | 0.63 | EPA 6020B | 10-28-19 | 10-28-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | | Spike Level | | Source Result | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DUPLICATE** | | | | | | | | | | | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Iron | **29800** | **25300** | NA | NA | | NA | | NA | 16 | 20 | |
| Manganese | **513** | **503** | NA | NA | | NA | | NA | 2 | 20 | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| Arsenic | **22.9** | **28.0** | NA | NA | | NA | | NA | 20 | 20 | |
| Barium | **49.4** | **44.3** | NA | NA | | NA | | NA | 11 | 20 | |
| Lead | **5.50** | **5.70** | NA | NA | | NA | | NA | 4 | 20 | |
| Selenium | **0.393** | **0.376** | NA | NA | | NA | | NA | 4 | 20 | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| Mercury | **0.414** | **0.421** | NA | NA | | NA | | NA | 2 | 20 | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Silver | **0.660** | **ND** | NA | NA | | NA | | NA | NA | 20 | |
| **MATRIX SPIKES** | | | | | | | | | | | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Iron | **31300** | **27500** | 1000 | 1000 | 29800 | **150** | **-225** | 75-125 | 13 | 20 | A |
| Manganese | **555** | **483** | 25.0 | 25.0 | 513 | **170** | **-120** | 75-125 | 14 | 20 | A |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| Arsenic | **106** | **111** | 100 | 100 | 22.9 | **83** | **88** | 75-125 | 5 | 20 | |
| Barium | **129** | **131** | 100 | 100 | 49.4 | **79** | **82** | 75-125 | 2 | 20 | |
| Lead | **229** | **234** | 250 | 250 | 5.50 | **89** | **91** | 75-125 | 2 | 20 | |
| Selenium | **96.8** | **95.8** | 100 | 100 | 0.393 | **96** | **95** | 75-125 | 1 | 20 | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| Mercury | **0.913** | **0.932** | 0.500 | 0.500 | 0.414 | **100** | **104** | 80-120 | 2 | 20 | |
| Laboratory ID: | 10-363-02 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Silver | **22.0** | **21.3** | 25.0 | 25.0 | 0.660 | **85** | **82** | 75-125 | 3 | 20 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | ICV102819X | 0.0500 | 0.0519 | -3.8 | +/- 10% |
| Barium | ICV102819X | 0.0500 | 0.0513 | -2.6 | +/- 10% |
| Iron | ICV102919P | 1.00 | 1.05 | -5.0 | +/- 10% |
| Lead | ICV102819X | 0.0500 | 0.0509 | -1.8 | +/- 10% |
| Manganese | ICV102919P | 1.00 | 0.972 | 2.8 | +/- 10% |
| Mercury | ICV102819Y | 0.00500 | 0.00492 | 1.6 | +/- 10% |
| Selenium | ICV102819X | 0.0500 | 0.0513 | -2.6 | +/- 10% |
| Silver | ICV102919X | 0.0500 | 0.0504 | -0.80 | +/- 10% |
| Arsenic | LLV102819X | 0.000500 | 0.000521 | -4.2 | +/- 20% |
| Barium | LLV102819X | 0.000500 | 0.000502 | -0.40 | +/- 20% |
| Iron | LLV102919P | 0.0500 | 0.0589 | -18 | +/- 20% |
| Lead | LLV102819X | 0.000500 | 0.000494 | 1.2 | +/- 20% |
| Manganese | LLV102919P | 0.0100 | 0.0107 | -7.0 | +/- 20% |
| Selenium | LLV102819X | 0.000500 | 0.000467 | 6.6 | +/- 20% |
| Silver | LLV102919X | 0.000500 | 0.000457 | 8.6 | +/- 20% |
| Arsenic | CCV1102819X | 0.0400 | 0.0382 | 4.5 | +/- 10% |
| Barium | CCV1102819X | 0.0400 | 0.0385 | 3.8 | +/- 10% |
| Iron | CCV1102919P | 5.00 | 5.18 | -3.6 | +/- 10% |
| Lead | CCV1102819X | 0.0400 | 0.0386 | 3.5 | +/- 10% |
| Manganese | CCV1102919P | 1.00 | 0.985 | 1.5 | +/- 10% |
| Mercury | CCV1102819Y | 0.00500 | 0.00506 | -1.2 | +/- 20% |
| Selenium | CCV1102819X | 0.0400 | 0.0404 | -1.0 | +/- 10% |
| Silver | CCV1102919X | 0.0400 | 0.0408 | -2.0 | +/- 10% |
| Arsenic | CCV2102819X | 0.0400 | 0.0384 | 4.0 | +/- 10% |
| Barium | CCV2102819X | 0.0400 | 0.0376 | 6.0 | +/- 10% |
| Iron | CCV2102919P | 5.00 | 5.29 | -5.8 | +/- 10% |
| Lead | CCV2102819X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Manganese | CCV2102919P | 1.00 | 0.993 | 0.70 | +/- 10% |
| Mercury | CCV2102819Y | 0.00500 | 0.00508 | -1.6 | +/- 20% |
| Selenium | CCV2102819X | 0.0400 | 0.0419 | -4.8 | +/- 10% |
| Silver | CCV2102919X | 0.0400 | 0.0395 | 1.3 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | CCV3102819X | 0.0400 | 0.0381 | 4.8 | +/- 10% |
| Barium | CCV3102819X | 0.0400 | 0.0381 | 4.8 | +/- 10% |
| Iron | CCV3102919P | 5.00 | 5.38 | -7.6 | +/- 10% |
| Lead | CCV3102819X | 0.0400 | 0.0384 | 4.0 | +/- 10% |
| Manganese | CCV3102919P | 1.00 | 0.987 | 1.3 | +/- 10% |
| Mercury | CCV3102819Y | 0.00500 | 0.00517 | -3.4 | +/- 20% |
| Selenium | CCV3102819X | 0.0400 | 0.0430 | -7.5 | +/- 10% |
| Silver | CCV3102919X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Arsenic | CCV4102819X | 0.0400 | 0.0384 | 4.0 | +/- 10% |
| Barium | CCV4102819X | 0.0400 | 0.0380 | 5.0 | +/- 10% |
| Iron | CCV4102919P | 5.00 | 5.29 | -5.8 | +/- 10% |
| Lead | CCV4102819X | 0.0400 | 0.0391 | 2.3 | +/- 10% |
| Manganese | CCV4102919P | 1.00 | 0.992 | 0.80 | +/- 10% |
| Selenium | CCV4102819X | 0.0400 | 0.0425 | -6.3 | +/- 10% |
| Silver | CCV4102919X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Arsenic | CCV5102819X | 0.0400 | 0.0388 | 3.0 | +/- 10% |
| Barium | CCV5102819X | 0.0400 | 0.0378 | 5.5 | +/- 10% |
| Lead | CCV5102819X | 0.0400 | 0.0390 | 2.5 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 30, 2019
Samples Submitted: October 26, 2019
Laboratory Reference: 1910-363
Project: 4296-008-01

**% MOISTURE**

| Client ID | Lab ID | % Moisture | Date Analyzed |
|---|---|---|---|
| **SR02-CS-01-02** | 10-363-01 | **14** | 10-28-19 |
| **SR02-CS-02-02** | 10-363-02 | **16** | 10-28-19 |
| **SR02-CS-03-02** | 10-363-03 | **8** | 10-28-19 |
| **SR02-CS-04-02** | 10-363-04 | **9** | 10-29-19 |
| **SR02-CS-05-02** | 10-363-05 | **7** | 10-28-19 |
| **SR02-CS-06-02** | 10-363-06 | **9** | 10-28-19 |
| **SR02-CS-07-02** | 10-363-07 | **8** | 10-28-19 |
| **SR02-CS-08-02** | 10-363-08 | **10** | 10-28-19 |
| **SR02-CS-09-02** | 10-363-09 | **7** | 10-28-19 |
| **SR02-CS-10-02** | 10-363-10 | **12** | 10-28-19 |
| **SR02-CS-11-02** | 10-363-11 | **10** | 10-28-19 |
| **SR02-CS-12-02** | 10-363-12 | **10** | 10-28-19 |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

**Data Qualifiers and Abbreviations**

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

# Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com



14

Company: GeoEngineers, Inc
Project Number: 4296-008-01
Project Name: Interim Remedial ~~Design~~ Action Design & Remediation Action
Project Manager: Nick Rohrbach (nrohrbach@geoengineers.com)
Sampled by: Justin Orr

**Turnaround Request (in working days)**

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☒ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days)
- ☐ _____ (other)

**Laboratory Number:** 10-363

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers |
|---|---|---|---|---|---|
| 1 | SR02-CS-01-02 | 10/23/19 | 0955 | S | 1 |
| 2 | SR02-CS-02-02 | | 1055 | | 3 |
| 3 | SR02-CS-03-02 | | 1340 | | 1 |
| 4 | SR02-CS-04-02 | | 1410 | | 1 |
| 5 | SR02-CS-05-02 | 10/24/19 | 1455 | | 1 |
| 6 | SR02-CS-06-02 | | 1510 | | 1 |
| 7 | SR02-CS-07-02 | | 1520 | | 1 |
| 8 | SR02-CS-08-02 | | 1535 | | 1 |
| 9 | SR02-CS-09-02 | | 1545 | | 1 |
| 10 | SR02-CS-10-02 | | 1555 | | 1 |

| | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Gx | NWTPH-Dx (☐ Acid / SG Clean-up) | Volatiles 8260C | Halogenated Volatiles 8260C | EDB EPA 8011 (Waters Only) | Semivolatiles 8270D/SIM (with low-level PAHs) | PAHs 8270D/SIM (low-level) | PCBs 8082A | Organochlorine Pesticides 8081B | Organophosphorus Pesticides 8270D/SIM | Chlorinated Acid Herbicides 8151A | Total RCRA Metals | Total MTCA Metals | TCLP Metals | HEM (oil and grease) 1664A | 6010/6020B/7471B* | MS/MSD | | | % Moisture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | X | | | | X |
| 2 | | | | | | | | | | | | | | | | | | | X | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | | GEI | 10/25/19 | 0745 |
| Received | | OnSite Env | 10/26/19 | 1045 |
| Relinquished | | | | |
| Received | | | | |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Reviewed/Date | | |

**Comments/Special Instructions**

* Arsenic, barium, iron, lead, manganese, mercury, selenium, silver

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

# Chain of Custody



**OnSite Environmental Inc.**
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers, Inc
Project Number: 4296-008-01
Project Name: Interim Remedial Action Design + Remedial Action
Project Manager: Nick Rohrbach (nrohrbach@geoengineers.com)
Sampled by: Justin Orr

**Turnaround Request (in working days)**
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

**Laboratory Number:** 10-363

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Gx | NWTPH-Dx (☐ Acid / SG Clean-up) | Volatiles 8260C | Halogenated Volatiles 8260C | EDB EPA 8011 (Waters Only) | Semivolatiles 8270D/SIM (with low-level PAHs) | PAHs 8270D/SIM (low-level) | PCBs 8082A | Organochlorine Pesticides 8081B | Organophosphorus Pesticides 8270D/SIM | Chlorinated Acid Herbicides 8151A | Total RCRA Metals | Total MTCA Metals | TCLP Metals | HEM (oil and grease) 1664A | 6010/6020B/7471B* | | | | % Moisture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | SR02-CS-11-02 | 10/24/19 | 1605 | S | 1 | | | | | | | | | | | | | | | | | | X | | | | X |
| 12 | SR02-CS-12-02 | 10/24/19 | 1620 | S | ↓ | | | | | | | | | | | | | | | | | | X | | | | X |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | | GEI | 10/25/19 | 0745 |
| Received | | OnSite Env | 10/25/19 | 1045 |
| Relinquished | | | | |
| Received | | | | |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Reviewed/Date | | |

**Comments/Special Instructions**
* Arsenic, barium, iron, lead, manganese, mercury, selenium, silver

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

# Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 4296-008-01

OnSite Project Number: 10-363

Initiated by: BG/MV

Date Initiated: 10/26 & 28/19

## 1.0 Cooler Verification

| | | | | |
|---|---|---|---|---|
| 1.1 Were there custody seals on the outside of the cooler? | Yes | No | N/A | 1 2 3 4 |
| 1.2 Were the custody seals intact? | Yes | No | N/A | 1 2 3 4 |
| 1.3 Were the custody seals signed and dated by last custodian? | Yes | No | N/A | 1 2 3 4 |
| 1.4 Were the samples delivered on ice or blue ice? | Yes | No | | 1 2 3 4 |
| 1.5 Were samples received between 0-6 degrees Celsius? | Yes | No | Temperature: 2°C | |
| 1.6 Have shipping bills (if any) been attached to the back of this form? | Yes | N/A | | |
| 1.7 How were the samples delivered? | Client | Courier | UPS/FedEx | OSE Pickup Other |

## 2.0 Chain of Custody Verification

| | | | |
|---|---|---|---|
| 2.1 Was a Chain of Custody submitted with the samples? | Yes | No | 1 2 3 4 |
| 2.2 Was the COC legible and written in permanent ink? | Yes | No | 1 2 3 4 |
| 2.3 Have samples been relinquished and accepted by each custodian? | Yes | No | 1 2 3 4 |
| 2.4 Did the sample labels (ID, date, time, preservative) agree with COC? | Yes | No | 1 2 3 4 |
| 2.5 Were all of the samples listed on the COC submitted? | Yes | No | 1 2 3 4 |
| 2.6 Were any of the samples submitted omitted from the COC? | Yes | No | 1 2 3 4 |

## 3.0 Sample Verification

| | | | | |
|---|---|---|---|---|
| 3.1 Were any sample containers broken or compromised? | Yes | No | | 1 2 3 4 |
| 3.2 Were any sample labels missing or illegible? | Yes | No | | 1 2 3 4 |
| 3.3 Have the correct containers been used for each analysis requested? | Yes | No | | 1 2 3 4 |
| 3.4 Have the samples been correctly preserved? | Yes | No | N/A | 1 2 3 4 |
| 3.5 Are volatiles samples free from headspace and bubbles greater than 6mm? | Yes | No | N/A | 1 2 3 4 |
| 3.6 Is there sufficient sample submitted to perform requested analyses? | Yes | No | | 1 2 3 4 |
| 3.7 Have any holding times already expired or will expire in 24 hours? | Yes | No | | 1 2 3 4 |
| 3.8 Was method 5035A used? | Yes | No | N/A | 1 2 3 4 |
| 3.9 If 5035A was used, which sampling option was used (#1, 2, or 3). | # | | N/A | 1 2 3 4 |

## Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

# RAW DATA

- Total Metals EPA 6010D/6020B/7471B

# Total Metals
# EPA 6010D/6020B/7471B Data

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | MB1028SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | SB1028SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-363-02a X 20 | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-363-02a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-363-02a DX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | 10-363-02a LX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | 10-363-02a MSX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 17 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 18 | 10-363-02a MSDX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-363-01a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-363-03a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-363-04a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | 10-363-05a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | 10-363-06a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | 10-363-07a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 25 | 10-363-08a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | 10-363-09a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-363-10a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 28 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 29 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 30 | 10-363-11a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | 10-363-12a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 32 | MB1029SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 33 | SB1029SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-329-08a | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | 10-329-08a D | Samp | 1.0000 | 1.00 | 1.00 |
| 36 | 10-329-08a L | Samp | 1.0000 | 1.00 | 1.00 |
| 37 | 10-329-08a MS | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-329-08a MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | 10-368-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 40 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 41 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 42 | MB1029TM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | SB1029TM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 44 | 10-318-01b | Samp | 1.0000 | 1.00 | 1.00 |
| 45 | 10-318-01b D | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-318-01b L | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | 10-318-01b MS | Samp | 1.0000 | 1.00 | 1.00 |
| 48 | 10-318-01b MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 49 | 10-318-02b | Samp | 1.0000 | 1.00 | 1.00 |

P191029F1. All Data Report 10/29/2019, 1:53:29 PM

**Blank (Blk)** **10/29/2019, 10:13:40 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.001 | -0.000 | -0.001 |
| Mn 257.610 | -0.000 | -0.000 | 0.000 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 0.000 | ppb | 0.974 | 98.1 | 0.993 |
| Mn 257.610 | 0.000 | ppb | 1.215 | 83.1 | 1.461 |

**Standard 5 (Std)** **10/29/2019, 9:38:37 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.050 | 0.054 | 0.057 |
| Mn 257.610 | 0.009 | 0.010 | 0.010 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 50.000 | ppb | 3.177 | 6.5 | 49.088 |
| Mn 257.610 | 10.000 | ppb | 1.678 | 1.5 | 109.27 |

**Standard 4 (Std)** **10/29/2019, 9:42:54 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.549 | 0.548 | 0.557 |
| Mn 257.610 | 0.101 | 0.102 | 0.104 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 500.00 | ppb | 4.414 | 0.9 | 496.83 |
| Mn 257.610 | 100.00 | ppb | 13.341 | 1.2 | 1148.1 |

**Standard 3 (Std)** **10/29/2019, 9:49:25 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 5.078 | 5.104 | 5.144 |
| Mn 257.610 | 0.950 | 0.963 | 0.960 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 5000.0 | ppb | 30.049 | 0.7 | 4594.1 |
| Mn 257.610 | 1000.0 | ppb | 73.910 | 0.7 | 10728 |

**Standard 2 (Std)** **10/29/2019, 9:53:43 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 13.022 | 13.206 | 13.310 |
| Mn 257.610 | 2.486 | 2.515 | 2.550 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 12500 | ppb | 130.908 | 1.1 | 11850 |
| Mn 257.610 | 2500.0 | ppb | 357.382 | 1.3 | 28200 |

P191029F1. All Data Report 10/29/2019, 1:53:29 PM

**Standard 1 (Std)** **10/29/2019, 9:58:00 AM** **Rack 2, Tube 7**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 24.529 | 24.716 | 24.668 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 25000 | ppb | 87.101 | 0.4 | 22152 |

**Fe 259.940 Calibration (ppm)** **10/29/2019, 10:13:40 AM** **Correlation Coefficient: 0.999446**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 0.993 | 0.000 | 0.000 | - | - |
| Standard 5 (mm6_086_04) | | 49.088 | 0.050 | 0.053 | 0.003 | 7.0 |
| Standard 4 (mm6_084_05) | | 496.83 | 0.500 | 0.551 | 0.051 | 10.3 |
| Standard 3 (mm6_086_02) | | 4594.1 | 5.000 | 5.109 | 0.109 | 2.2 |
| Standard 2 (mm6_083_02) | | 11850 | 12.500 | 13.179 | 0.679 | 5.4 |
| Standard 1 (mm6_088_01) | | 22152 | 25.000 | 24.638 | -0.362 | -1.4 |

Curve Type: Linear Equation: y = 899.1 x + 1.0

**Mn 257.610 Calibration (ppm)** **10/29/2019, 10:13:40 AM** **Correlation Coefficient: 0.999794**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 1.461 | 0.000 | 0.000 | - | - |
| Standard 5 | | 109.27 | 0.010 | 0.010 | -0.000 | -3.8 |
| Standard 4 | | 1148.1 | 0.100 | 0.102 | 0.002 | 2.3 |
| Standard 3 | | 10728 | 1.000 | 0.957 | -0.043 | -4.3 |
| Standard 2 | | 28200 | 2.500 | 2.517 | 0.017 | 0.7 |

Curve Type: Linear Equation: y = 11203.3 x + 1.5

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Fe 259.940 | 0.000 | ppb | 10/29/2019, 10:13:40 AM |
| | Mn 257.610 | 0.000 | ppb | |
| Standard 5 | Fe 259.940 | 50.000 | ppb | 10/29/2019, 9:38:37 AM |
| | Mn 257.610 | 10.000 | ppb | |
| Standard 4 | Fe 259.940 | 500.00 | ppb | 10/29/2019, 9:42:54 AM |
| | Mn 257.610 | 100.00 | ppb | |
| Standard 3 | Fe 259.940 | 5000.0 | ppb | 10/29/2019, 9:49:25 AM |
| | Mn 257.610 | 1000.0 | ppb | |
| Standard 2 | Fe 259.940 | 12500 | ppb | 10/29/2019, 9:53:43 AM |
| | Mn 257.610 | 2500.0 | ppb | |
| Standard 1 | Fe 259.940 | 25000 | ppb | 10/29/2019, 9:58:00 AM |
| Initial Calib Verif | Fe 259.940 | 1051.8 | ppb | 10/29/2019, 10:18:38 AM |
| | Mn 257.610 | 971.88 | ppb | |
| Initial Calib Blank | Fe 259.940 | 38.993 | ppb | 10/29/2019, 10:29:35 AM |
| | Mn 257.610 | 0.265 | ppb | |
| LLV | Fe 259.940 | 58.920 | ppb | 10/29/2019, 10:33:52 AM |
| | Mn 257.610 | 10.655 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5184.7 | ppb | 10/29/2019, 10:46:24 AM |
| | Mn 257.610 | 984.57 | ppb | |
| Cont Calib Blank | Fe 259.940 | 13.312 | ppb | 10/29/2019, 10:50:43 AM |
| | Mn 257.610 | 0.141 | ppb | |
| ICSA | Fe 259.940 | 157546x | ppb | 10/29/2019, 10:55:02 AM |
| | Mn 257.610 | 0.545 | ppb | |
| ICSAB | Fe 259.940 | 155061x | ppb | 10/29/2019, 10:59:20 AM |
| | Mn 257.610 | 443.40 | ppb | |
| BLK | Fe 259.940 | 172.47 | ppb | 10/29/2019, 11:06:38 AM |
| | Mn 257.610 | 0.953 | ppb | |
| MB1028SH1 | Fe 259.940 | 28.548 | ppb | 10/29/2019, 11:10:58 AM |
| | Mn 257.610 | 3.478 | ppb | |
| SB1028SH1 | Fe 259.940 | 18873 | ppb | 10/29/2019, 11:15:19 AM |
| | Mn 257.610 | 482.66 | ppb | |
| 10-363-02a X 20 | Fe 259.940 | 27914 | ppb | 10/29/2019, 11:19:39 AM |
| | Mn 257.610 | 472.29 | ppb | |
| 10-363-02a X 50 | Fe 259.940 | 11851 | ppb | 10/29/2019, 11:34:46 AM |
| | Mn 257.610 | 204.87 | ppb | |

P191029F1. Mean Only Report 10/29/2019, 1:52:31 PM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| 10-363-02a DX 50 | Fe 259.940 | 10107 | ppb | 10/29/2019, 11:39:03 AM |
| | Mn 257.610 | 200.52 | ppb | |
| 10-363-02a LX 50 | Fe 259.940 | 2338.1 | ppb | 10/29/2019, 11:43:21 AM |
| | Mn 257.610 | 39.055 | ppb | |
| 10-363-02a MSX 50 | Fe 259.940 | 12513 | ppb | 10/29/2019, 11:47:38 AM |
| | Mn 257.610 | 221.27 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5285.6 | ppb | 10/29/2019, 11:51:57 AM |
| | Mn 257.610 | 993.42 | ppb | |
| Cont Calib Blank | Fe 259.940 | 8.251 | ppb | 10/29/2019, 11:56:15 AM |
| | Mn 257.610 | 0.135 | ppb | |
| 10-363-02a MSDX 50 | Fe 259.940 | 10998 | ppb | 10/29/2019, 12:02:14 PM |
| | Mn 257.610 | 193.19 | ppb | |
| 10-363-01a X 50 | Fe 259.940 | 10887 | ppb | 10/29/2019, 12:08:41 PM |
| | Mn 257.610 | 166.21 | ppb | |
| 10-363-03a X 50 | Fe 259.940 | 8349.1 | ppb | 10/29/2019, 12:13:00 PM |
| | Mn 257.610 | 306.18 | ppb | |
| 10-363-04a X 50 | Fe 259.940 | 7564.7 | ppb | 10/29/2019, 12:17:19 PM |
| | Mn 257.610 | 239.23 | ppb | |
| 10-363-05a X 50 | Fe 259.940 | 12794 | ppb | 10/29/2019, 12:21:38 PM |
| | Mn 257.610 | 212.13 | ppb | |
| 10-363-06a X 50 | Fe 259.940 | 9132.3 | ppb | 10/29/2019, 12:25:55 PM |
| | Mn 257.610 | 141.84 | ppb | |
| 10-363-07a X 50 | Fe 259.940 | 10608 | ppb | 10/29/2019, 12:30:14 PM |
| | Mn 257.610 | 154.19 | ppb | |
| 10-363-08a X 50 | Fe 259.940 | 13960 | ppb | 10/29/2019, 12:34:33 PM |
| | Mn 257.610 | 210.25 | ppb | |
| 10-363-09a X 50 | Fe 259.940 | 6734.4 | ppb | 10/29/2019, 12:38:51 PM |
| | Mn 257.610 | 131.18 | ppb | |
| 10-363-10a X 50 | Fe 259.940 | 7296.4 | ppb | 10/29/2019, 12:43:11 PM |
| | Mn 257.610 | 128.08 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5377.2 | ppb | 10/29/2019, 12:47:31 PM |
| | Mn 257.610 | 986.78 | ppb | |
| Cont Calib Blank | Fe 259.940 | 43.358 | ppb | 10/29/2019, 12:51:51 PM |
| | Mn 257.610 | 0.382 | ppb | |
| 10-363-11a X 50 | Fe 259.940 | 9488.9 | ppb | 10/29/2019, 12:59:19 PM |

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| | Mn 257.610 | 118.63 | ppb | |
| 10-363-12a X 50 | Fe 259.940 | 8590.9 | ppb | 10/29/2019, 1:03:38 PM |
| | Mn 257.610 | 184.62 | ppb | |
| MB1029SM1 | Fe 259.940 | 122.68 | ppb | 10/29/2019, 1:09:20 PM |
| | Mn 257.610 | 2.629 | ppb | |
| SB1029SM1 | Fe 259.940 | 19.386 | ppb | 10/29/2019, 1:13:38 PM |
| | Mn 257.610 | 1.590 | ppb | |
| 10-329-08a | Fe 259.940 | 161759x | ppb | 10/29/2019, 1:17:56 PM |
| | Mn 257.610 | 3299.1 | ppb | |
| 10-329-08a D | Fe 259.940 | 160588x | ppb | 10/29/2019, 1:22:16 PM |
| | Mn 257.610 | 2828.9 | ppb | |
| 10-329-08a L | Fe 259.940 | 36284 | ppb | 10/29/2019, 1:26:36 PM |
| | Mn 257.610 | 662.51 | ppb | |
| 10-329-08a MS | Fe 259.940 | 169774x | ppb | 10/29/2019, 1:30:55 PM |
| | Mn 257.610 | 3385.2 | ppb | |
| 10-329-08a MSD | Fe 259.940 | 193358x | ppb | 10/29/2019, 1:35:14 PM |
| | Mn 257.610 | 3636.2 | ppb | |
| 10-368-01 | Fe 259.940 | 342425x | ppb | 10/29/2019, 1:39:35 PM |
| | Mn 257.610 | 3410.0 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5290.1 | ppb | 10/29/2019, 1:43:54 PM |
| | Mn 257.610 | 992.09 | ppb | |
| Cont Calib Blank | Fe 259.940 | 27.658 | ppb | 10/29/2019, 1:48:13 PM |
| | Mn 257.610 | 0.335 | ppb | |

**Report Generated By CETAC QuickTrace**
**Analyst:** kmckinney
**Worksheet file:** C:\Program Files\QuickTrace\Worksheets\10 October 2019\Y191028S1.wsz
**Date Started:** 10/28/2019 12:00:34 PM
**Comment:**

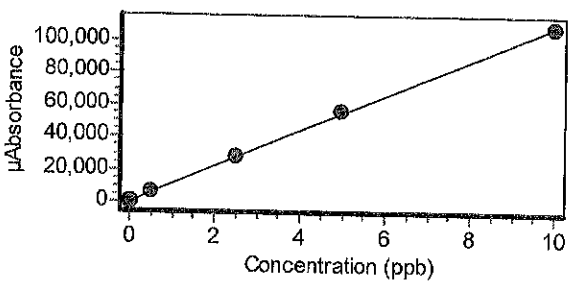
KDM
10-30-19

# *Results*

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| Calibration Blank | STD | 10/28/19 01:19:39 pm | 0.000 | -15 | 49.87 | |
| Standard 0.05 ppb | STD | 10/28/19 01:21:31 pm | 0.050 | 571 | 1.62 | |
| Standard 0.5 ppb | STD | 10/28/19 01:23:24 pm | 0.500 | 5697 | 0.25 | |
| Standard 2.5 ppb | STD | 10/28/19 01:25:17 pm | 2.500 | 28202 | 1.37 | |
| Standard 5.0 ppb | STD | 10/28/19 01:27:11 pm | 5.000 | 56093 | 1.14 | |
| Standard 10.0 ppb | STD | 10/28/19 01:29:06 pm | 10.000 | 109157 | 1.33 | |

Calibration

Equation: A = -15.071 + 10993.630C
R2: 0.99969
SEE: 907.0164
Flags:




| | | | | | | |
|---|---|---|---|---|---|---|
| ICV<br>% Recovery 98.47 | ICV | 10/28/19 01:31:01 pm | 4.923 | 54109 | 1.18 | |
| ICB | ICB | 10/28/19 01:32:53 pm | -0.017 | -197 | 10.35 | |
| CCV<br>% Recovery 101.21 | CCV | 10/28/19 01:34:47 pm | 5.060 | 55616 | 1.43 | |
| CCB | CCB | 10/28/19 01:36:38 pm | -0.017 | -204 | 5.32 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| MB1028S2 | UNK | 10/28/19 01:38:30 pm | 0.000 | -12 | 63.66 | |
| SB1028S2 | UNK | 10/28/19 01:40:22 pm | 5.075 | 55782 | 1.69 | |
| 10-363-02 | UNK | 10/28/19 01:42:14 pm | 4.137 | 45470 | 1.85 | |
| 10-363-02 DUP | UNK | 10/28/19 01:44:07 pm | 4.212 | 46293 | 1.28 | |
| 10-363-02 L | UNK | 10/28/19 01:46:01 pm | 0.859 | 9430 | 1.58 | |
| 10-363-02 MS | UNK | 10/28/19 01:47:54 pm | 9.129 | 100340 | 1.17 | |
| 10-363-02 MSD | UNK | 10/28/19 01:49:48 pm | 9.323 | 102481 | 0.62 | |
| 10-363-01 | UNK | 10/28/19 01:51:42 pm | 1.788 | 19644 | 1.85 | |
| 10-363-03 | UNK | 10/28/19 01:53:34 pm | 3.192 | 35080 | 1.17 | |
| 10-363-04 | UNK | 10/28/19 01:55:26 pm | 0.392 | 4289 | 0.94 | |
| 10-363-05 | UNK | 10/28/19 01:57:18 pm | 3.293 | 36186 | 1.11 | |
| CCV | CCV | 10/28/19 01:59:12 pm | 5.082 | 55851 | 1.08 | |
| % Recovery 101.63 | | | | | | |
| CCB | CCB | 10/28/19 02:01:04 pm | -0.018 | -212 | 2.83 | |
| 10-363-06 | UNK | 10/28/19 02:02:56 pm | 1.739 | 19106 | 0.52 | |
| 10-363-07 | UNK | 10/28/19 02:04:50 pm | 0.402 | 4403 | 1.18 | |
| 10-363-08 | UNK | 10/28/19 02:06:44 pm | 0.898 | 9862 | 1.17 | |
| 10-363-09 | UNK | 10/28/19 02:08:38 pm | 1.502 | 16494 | 1.17 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| 10-363-10 | UNK | 10/28/19 02:10:30 pm | 0.415 | 4542 | 1.08 | |
| 10-363-11 | UNK | 10/28/19 02:12:22 pm | 0.718 | 7876 | 1.42 | |
| 10-363-12 | UNK | 10/28/19 02:14:14 pm | 0.315 | 3445 | 0.38 | |
| CCV | CCV | 10/28/19 02:16:08 pm | 5.166 | 56778 | 1.05 | |
| % Recovery 103.32 | | | | | | |
| CCB | CCB | 10/28/19 02:18:00 pm | -0.017 | -199 | 3.64 | |
| 10-368-01 | UNK | 10/28/19 02:49:53 pm | 4.434 | 48736 | 0.59 | |
| CCV | CCV | 10/28/19 02:51:47 pm | 4.901 | 53866 | 1.24 | |
| % Recovery 98.02 | | | | | | |
| CCB | CCB | 10/28/19 02:53:38 pm | -0.019 | -219 | 2.64 | |

# Dataset Report

10-30-19
kpm

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexIONData\DataSet\X191028A\
Report Date/Time: Wednesday, October 30, 2019 08:02:31

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| SmartTune - T | Torch Alignment | 11:13:54 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Torch Alignment.001 | |
| SmartTune - N | Nebulizer Gas Flow S | 11:14:53 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Nebulizer Gas Flow STD-KED [NEB].00 | |
| SmartTune - A | AutoLens STD/DRC | 11:20:13 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\AutoLens STD-DRC.003 | |
| SmartTune - K | KED Mode AutoLens | 11:26:01 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\KED Mode AutoLens.004 | |
| SmartTune - D | Daily Performance Chr | 11:30:51 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Daily Performance Check.005 | |
| SmartTune - D | Daily Performance Chr | 11:33:24 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Daily Performance Check.006 | |
| SmartTune - M | Mass Calibration and F | 11:36:19 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Mass Calibration and Resolution.007 | |
| | Sample | 11:43:51 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Sample.008 | |
| | Sample | 11:47:53 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\Sample.009 | |
| | Blank | 11:52:19 Mon 28-C | Blank | C:\NexIONData\DataSet\X191028A\Blank.010 | |
| | Standard 2 | 11:55:30 Mon 28-C | Standard #2 | C:\NexIONData\DataSet\X191028A\Standard 2.011 | |
| | Standard 3 | 11:58:42 Mon 28-C | Standard #3 | C:\NexIONData\DataSet\X191028A\Standard 3.012 | |
| | Standard 5 | 12:01:54 Mon 28-C | Standard #5 | C:\NexIONData\DataSet\X191028A\Standard 5.013 | |
| | Standard 6 | 12:05:05 Mon 28-C | Standard #6 | C:\NexIONData\DataSet\X191028A\Standard 6.014 | |
| | Standard 7 | 12:08:16 Mon 28-C | Standard #7 | C:\NexIONData\DataSet\X191028A\Standard 7.015 | |
| | QC Std 1 | 12:12:17 Mon 28-C | QC Std #1 | C:\NexIONData\DataSet\X191028A\QC Std 1.016 | |
| | QC Std 2 | 12:16:18 Mon 28-C | QC Std #2 | C:\NexIONData\DataSet\X191028A\QC Std 2.017 | |
| | QC Std 3 | 12:19:31 Mon 28-C | QC Std #3 | C:\NexIONData\DataSet\X191028A\QC Std 3.018 | |
| | QC Std 4 | 12:23:33 Mon 28-C | QC Std #4 | C:\NexIONData\DataSet\X191028A\QC Std 4.019 | |
| | QC Std 6 | 12:27:34 Mon 28-C | QC Std #6 | C:\NexIONData\DataSet\X191028A\QC Std 6.020 | |
| | QC Std 8 | 12:31:36 Mon 28-C | QC Std #8 | C:\NexIONData\DataSet\X191028A\QC Std 8.021 | |
| | ICSA | 12:34:48 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\ICSA.022 | |
| | ICSAB | 12:38:49 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\ICSAB.023 | |
| | MB1028SM1 5X | 12:46:39 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\MB1028SM1 5X.024 | |
| | SB1028SM1 50X | 12:50:39 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\SB1028SM1 50X.025 | |
| | 10-363-02a 10X | 12:54:39 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02a 10X.026 | |
| | 10-363-02aD 10X | 12:58:38 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aD 10X.027 | |
| | 10-363-02aL 50X | 13:02:39 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aL 50X.028 | |
| | 10-363-02aMS 50X | 13:06:41 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aMS 50X.029 | |
| | 10-363-02aMSD 50X | 13:10:43 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aMSD 50X.030 | |
| | 10-363-02aPS 10X | 13:14:44 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aPS 10X.031 | |
| | QC Std 6 | 13:18:45 Mon 28-C | QC Std #6 | C:\NexIONData\DataSet\X191028A\QC Std 6.032 | |
| | QC Std 8 | 13:22:47 Mon 28-C | QC Std #8 | C:\NexIONData\DataSet\X191028A\QC Std 8.033 | |
| | 10-363-02a 25X | 13:39:52 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02a 25X.036 | |
| | 10-363-02aD 25X | 13:43:53 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aD 25X.037 | |
| | 10-363-02aL 125X | 13:47:54 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aL 125X.038 | |
| | 10-363-02aPS 25X | 13:51:55 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-02aPS 25X.039 | |
| | 10-363-01 10X | 13:56:29 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-01 10X.040 | |
| | 10-363-03 10X | 14:00:29 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-03 10X.041 | |
| | 10-363-04 10X | 14:04:29 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-04 10X.042 | |
| | 10-363-05 10X | 14:08:29 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-05 10X.043 | |
| | 10-363-06 10X | 14:12:30 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-06 10X.044 | |
| | 10-363-07 10X | 14:16:31 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-07 10X.045 | |
| | QC Std 6 | 14:20:32 Mon 28-C | QC Std #6 | C:\NexIONData\DataSet\X191028A\QC Std 6.046 | |
| | QC Std 8 | 14:24:34 Mon 28-C | QC Std #8 | C:\NexIONData\DataSet\X191028A\QC Std 8.047 | |
| | 10-363-08 10X | 14:28:57 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-08 10X.048 | |
| | 10-363-09 10X | 14:32:58 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-09 10X.049 | |
| | 10-363-10 10X | 14:36:59 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-10 10X.050 | |
| | 10-363-11 10X | 14:40:59 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-11 10X.051 | |
| | 10-363-12 10X | 14:45:00 Mon 28-C | Sample | C:\NexIONData\DataSet\X191028A\10-363-12 10X.052 | |

| | | |
|---|---|---|
| 10-363-01 25X | 14:49:01 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-01 25X.053 |
| 10-363-03 25X | 14:53:02 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-03 25X.054 |
| 10-363-04 25X | 14:57:02 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-04 25X.055 |
| 10-363-05 25X | 15:01:03 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-05 25X.056 |
| 10-363-06 25X | 15:05:03 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-06 25X.057 |
| QC Std 6 | 15:09:05 Mon 28-CQC Std #6 | C:\NexION Data\DataSet\X1 1028A\QC Std 6.058 |
| QC Std 8 | 15:13:06 Mon 28-CQC Std #8 | C:\NexION Data\DataSet\X1 1028A\QC Std 8.059 |
| 10-363-07 25X | 15:19:05 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-07 25X.060 |
| 10-363-08 25X | 15:23:07 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-08 25X.061 |
| 10-363-09 25X | 15:27:08 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-09 25X.062 |
| 10-363-10 50X | 15:31:09 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-10 50X.063 |
| 10-363-11 25X | 15:35:10 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-11 25X.064 |
| 10-363-12 50X | 15:39:10 Mon 28-CSample | C:\NexION Data\DataSet\X1 1028A\10-363-12 50X.065 |
| QC Std 6 | 15:43:11 Mon 28-CQC Std #6 | C:\NexION Data\DataSet\X1 1028A\QC Std 6.066 |
| QC Std 8 | 15:47:13 Mon 28-CQC Std #8 | C:\NexION Data\DataSet\X1 1028A\QC Std 8.067 |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| As | 74.922 | Linear Thru Zero | 0.00 | 0.00 | 0.999864 |
| As-1 | 74.922 | Linear Thru Zero | 0.00 | 0.00 | 0.999642 |
| Se | 76.920 | Linear Thru Zero | 0.00 | 0.00 | 0.999768 |
| Se | 77.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999936 |
| Br | 78.918 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Se | 81.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999087 |
| Kr | 82.914 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ba | 134.906 | Linear Thru Zero | 0.01 | 0.00 | 0.999938 |
| Ba | 136.905 | Linear Thru Zero | 0.01 | 0.00 | 0.999955 |
| Tb | 158.925 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ho | 164.930 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Pb | 207.977 | Linear Thru Zero | 0.09 | 0.00 | 0.999908 |
| Bi | 208.980 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Th | 232.038 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ge-1 | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| As-2 | 74.922 | Linear Thru Zero | 0.01 | 0.00 | 0.999893 |
| Y-1 | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh-1 | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| In-1 | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Monday, October 28, 2019 11:33:24
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191028A\Daily Performance Check.006
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 6062.8 | 6062.820 | 150.460 | 2.5 | Standard |
| | Mg | 24.0 | 45011.2 | 45011.195 | 1507.815 | 3.3 | Standard |
| | In | 114.9 | 52123.6 | 52123.551 | 1100.026 | 2.1 | Standard |
| | U | 238.1 | 52457.3 | 52457.339 | 342.437 | 0.7 | Standard |
| ⌈ | CeO | 155.9 | 1040.8 | 0.022 | 0.000 | 0.9 | Standard |
| \|> | Ce | 139.9 | 46997.5 | 46997.467 | 857.436 | 1.8 | Standard |
| ⌊ | Ce++ | 70.0 | 191.7 | 0.004 | 0.000 | 6.1 | Standard |
| | Bkgd | 220.0 | 0.1 | 0.067 | 0.091 | 136.9 | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 1.00 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 1.00 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/28/2019 11:33:22 AM
End Time: 10/28/2019 11:35:43 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 6062.82
Obtained Intensity (Mg 23.985): 45011.20
Obtained Intensity (In 114.904): 52123.55
Obtained Intensity (U 238.05): 52457.34
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=1040.84 / 46997.47)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=191.73 / 46997.47)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/28/2019 11:33:22 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 6062.82
Obtained Intensity (Mg 23.985): 45011.20
Obtained Intensity (In 114.904): 52123.55
Obtained Intensity (U 238.05): 52457.34
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=1040.84 / 46997.47)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.004 (=191.73 / 46997.47)

[Passed] Optimum value(s): N/A

End Time: 10/28/2019 11:35:43 AM

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/28/2019 11:36:19 AM
End Time: 10/28/2019 11:38:30 AM

Mass Calibration and Resolution - [Passed]  Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.690)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.689)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.688)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.684)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/28/2019 11:36:19 AM

Mass Calibration and Resolution

Optimization Settings:

Method: C:\NexIONData\Method\Tuning.mth.

MassCal File: Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.690)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.689)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.688)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.684)

[Passed] Optimum value(s): N/A

End Time: 10/28/2019 11:38:30 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexION\Data\MassCal\Default.tun
Acq. Date/Time: 11:36:19 Mon 28-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 7.025 | 1202 | 2081 | 0.690 | |
| Mg | 23.985 | 23.975 | 4611 | 2084 | 0.689 | |
| In | 114.904 | 114.925 | 22778 | 2085 | 0.688 | |
| U | 238.050 | 238.075 | 47387 | 2081 | 0.684 | |

# Quantitative Analysis - Summary Report

## Sample ID: Blank

Sample Date/Time: Monday, October 28, 2019 11:52:19
Report Date/Time: Monday, October 28, 2019 13:27:12
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164393.4 | 2.1 | | | | ug/L | | Standard |
| | As | 75 | 1251.0 | 1.2 | | | | ug/L | | Standard |
| | As-1 | 75 | 43.8 | 39.6 | | | | ug/L | | Standard |
| | Se | 77 | 18.3 | 31.5 | | | | ug/L | | Standard |
| | Se | 78 | 1453.7 | 1.3 | | | | ug/L | | Standard |
| | Br | 79 | 62.7 | 6.6 | | | | ug/L | | Standard |
| | Se | 82 | 31.7 | 17.4 | | | | ug/L | | Standard |
| | Kr | 83 | 23.7 | 17.1 | | | | ug/L | | Standard |
| | Y | 89 | 282733.8 | 4.1 | | | | ug/L | | Standard |
| > | Rh | 103 | 237344.1 | 4.3 | | | | ug/L | | Standard |
| | In | 115 | 527616.3 | 1.2 | | | | ug/L | | Standard |
| | Ba | 135 | 119.0 | 1.7 | | | | ug/L | | Standard |
| | Ba | 137 | 143.3 | 0.4 | | | | ug/L | | Standard |
| > | Tb | 159 | 547361.4 | 1.8 | | | | ug/L | | Standard |
| | Ho | 165 | 562656.8 | 0.8 | | | | ug/L | | Standard |
| | Pb | 208 | 1070.0 | 2.8 | | | | ug/L | | Standard |
| | Bi | 209 | 387214.5 | 1.4 | | | | ug/L | | Standard |
| | Th | 232 | 527440.7 | 0.4 | | | | ug/L | | Standard |
| > | Ge-1 | 72 | 7167.8 | 1.5 | | | | ug/L | | KED |
| | As-2 | 75 | 2.3 | 65.5 | | | | ug/L | | KED |
| | Y-1 | 89 | 11972.3 | 0.7 | | | | ug/L | | KED |
| | Rh-1 | 103 | 86093.7 | 1.4 | | | | ug/L | | KED |
| | In-1 | 115 | 7437.4 | 0.2 | | | | ug/L | | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Monday, October 28, 2019 11:55:30
Report Date/Time: Monday, October 28, 2019 13:27:16
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 167564.5 | 1.4 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1526.3 | 3.2 | **0.4225** | 0.094 | 22.2 | ug/L | 1251 | Standard |
| | As-1 | 75 | 367.5 | 3.8 | **0.4638** | 0.022 | 4.8 | ug/L | 44 | Standard |
| | Se | 77 | 42.7 | 11.1 | **0.5468** | 0.095 | 17.4 | ug/L | 18 | Standard |
| | Se | 78 | 1499.7 | 2.8 | **0.1279** | 0.348 | 272.2 | ug/L | 1454 | Standard |
| | Br | 79 | 65.0 | 0.0 | | | | ug/L | 63 | Standard |
| | Se | 82 | 68.7 | 1.7 | **0.2953** | 0.012 | 4.2 | ug/L | 32 | Standard |
| | Kr | 83 | 29.0 | 24.1 | | | | ug/L | 24 | Standard |
| | Y | 89 | 284206.4 | 1.1 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 229157.1 | 0.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 527427.9 | 1.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 1732.8 | 5.6 | **0.4982** | 0.032 | 6.3 | ug/L | 119 | Standard |
| | Ba | 137 | 2860.3 | 1.8 | **0.5067** | 0.007 | 1.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 544120.3 | 0.7 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 557735.1 | 1.9 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 23456.0 | 0.7 | **0.4753** | 0.001 | 0.3 | ug/L | 1070 | Standard |
| | Bi | 209 | 388341.7 | 0.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 531256.2 | 0.3 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 7101.1 | 1.0 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 25.7 | 19.2 | **0.5365** | 0.109 | 20.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 11949.7 | 1.3 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 85024.3 | 1.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7363.1 | 2.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 3

Sample Date/Time: Monday, October 28, 2019 11:58:42
Report Date/Time: Monday, October 28, 2019 13:27:21
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 157244.5 | 1.6 | | | | ug/L | 164393 | Standard |
| \| | As | 75 | 2346.0 | 1.9 | **2.0581** | 0.071 | 3.4 | ug/L | 1251 | Standard |
| \| | As-1 | 75 | 1340.3 | 5.5 | **1.9874** | 0.108 | 5.4 | ug/L | 44 | Standard |
| \| | Se | 77 | 98.7 | 9.1 | **1.9736** | 0.201 | 10.2 | ug/L | 18 | Standard |
| \| | Se | 78 | 1697.4 | 2.8 | **2.2937** | 0.155 | 6.8 | ug/L | 1454 | Standard |
| ⌊ | Br | 79 | 55.0 | 11.4 | | | | ug/L | 63 | Standard |
| ⌈ | Se | 82 | 205.0 | 10.7 | **1.4942** | 0.149 | 10.0 | ug/L | 32 | Standard |
| \| | Kr | 83 | 22.0 | 24.1 | | | | ug/L | 24 | Standard |
| \| | Y | 89 | 258608.4 | 2.1 | | | | ug/L | 282734 | Standard |
| ⌊> | Rh | 103 | 210116.1 | 2.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 490662.5 | 0.9 | | | | ug/L | 527616 | Standard |
| ⌈ | Ba | 135 | 6089.0 | 0.9 | **1.9837** | 0.019 | 1.0 | ug/L | 119 | Standard |
| ⌊ | Ba | 137 | 10112.9 | 0.0 | **2.0011** | 0.012 | 0.6 | ug/L | 143 | Standard |
| \|> | Tb | 159 | 505974.3 | 0.6 | | | | ug/L | 547361 | Standard |
| \| | Ho | 165 | 514010.1 | 1.7 | | | | ug/L | 562657 | Standard |
| \| | Pb | 208 | 86706.1 | 0.7 | **1.9565** | 0.019 | 1.0 | ug/L | 1070 | Standard |
| \| | Bi | 209 | 365310.2 | 0.2 | | | | ug/L | 387215 | Standard |
| ⌊ | Th | 232 | 500210.1 | 0.8 | | | | ug/L | 527441 | Standard |
| ⌈> | Ge-1 | 72 | 6933.7 | 3.3 | | | | ug/L | 7168 | KED |
| ⌊ | As-2 | 75 | 81.3 | 1.4 | **1.8645** | 0.088 | 4.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 11630.4 | 2.2 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 82325.6 | 1.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7170.7 | 3.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| ⌈> | 72 | Ge | | |
| \| | 75 | As | | |
| \| | 75 | As-1 | | |
| \| | 77 | Se | | |
| ⌊ | 78 | Se | | |
| | 79 | Br | | |
| ⌈ | 82 | Se | | |
| \| | 83 | Kr | | |
| \| | 89 | Y | | |
| ⌊> | 103 | Rh | | |
| | 115 | In | | |
| ⌈ | 135 | Ba | | |
| ⌊ | 137 | Ba | | |
| \|> | 159 | Tb | | |
| \| | 165 | Ho | | |
| \| | 208 | Pb | | |
| \| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Monday, October 28, 2019 12:01:54
Report Date/Time: Monday, October 28, 2019 13:27:23
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 141119.2 | 2.4 | | | | ug/L | 164393 | Standard |
| | As | 75 | 10974.3 | 1.0 | **19.7537** | 0.302 | 1.5 | ug/L | 1251 | Standard |
| | As-1 | 75 | 11107.3 | 1.0 | **18.8825** | 0.279 | 1.5 | ug/L | 44 | Standard |
| | Se | 77 | 704.0 | 2.8 | **18.6751** | 0.860 | 4.6 | ug/L | 18 | Standard |
| | Se | 78 | 3752.2 | 1.6 | **20.8814** | 0.923 | 4.4 | ug/L | 1454 | Standard |
| | Br | 79 | 43.0 | 28.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 1433.4 | 2.3 | **13.6587** | 0.280 | 2.1 | ug/L | 32 | Standard |
| | Kr | 83 | 32.0 | 21.9 | | | | ug/L | 24 | Standard |
| | Y | 89 | 227478.4 | 2.2 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 184469.6 | 1.5 | | | | ug/L | 237344 | Standard |
| | In | 115 | 442670.8 | 0.9 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 53728.9 | 1.7 | **19.5722** | 0.224 | 1.1 | ug/L | 119 | Standard |
| | Ba | 137 | 89551.1 | 0.9 | **19.7261** | 0.274 | 1.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 459997.1 | 1.8 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 481894.6 | 2.8 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 768516.2 | 1.2 | **19.2733** | 0.125 | 0.7 | ug/L | 1070 | Standard |
| | Bi | 209 | 336330.5 | 1.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 464584.6 | 1.5 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6417.4 | 1.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 739.7 | 4.0 | **18.7668** | 0.536 | 2.9 | ug/L | 2 | KED |
| | Y-1 | 89 | 10448.8 | 1.5 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 74385.2 | 1.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6599.2 | 2.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 6

Sample Date/Time: Monday, October 28, 2019 12:05:05
Report Date/Time: Monday, October 28, 2019 13:27:25
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 137325.3 | 5.0 | | | | ug/L | 164393 | Standard |
| | As | 75 | 19760.0 | 5.4 | **38.3586** | 0.247 | 0.6 | ug/L | 1251 | Standard |
| | As-1 | 75 | 21480.1 | 6.4 | **37.5655** | 0.667 | 1.8 | ug/L | 44 | Standard |
| | Se | 77 | 1388.7 | 4.0 | **38.2943** | 1.182 | 3.1 | ug/L | 18 | Standard |
| | Se | 78 | 5787.5 | 3.0 | **39.1985** | 1.150 | 2.9 | ug/L | 1454 | Standard |
| | Br | 79 | 54.3 | 23.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 2841.3 | 7.0 | **28.2456** | 2.110 | 7.5 | ug/L | 32 | Standard |
| | Kr | 83 | 28.3 | 32.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 223887.7 | 6.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 184532.0 | 8.7 | | | | ug/L | 237344 | Standard |
| | In | 115 | 433132.8 | 4.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 102275.2 | 3.8 | **38.9683** | 0.471 | 1.2 | ug/L | 119 | Standard |
| | Ba | 137 | 169682.4 | 3.1 | **39.0911** | 0.778 | 2.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 440351.2 | 5.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 462018.8 | 4.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1481467.4 | 3.1 | **38.8575** | 0.843 | 2.2 | ug/L | 1070 | Standard |
| | Bi | 209 | 329374.4 | 2.0 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 450748.9 | 1.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5868.9 | 2.9 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1409.4 | 3.3 | **39.1650** | 0.361 | 0.9 | ug/L | 2 | KED |
| | Y-1 | 89 | 9749.3 | 2.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 68051.8 | 2.4 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6151.1 | 4.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**
Sample Date/Time: Monday, October 28, 2019 12:08:16
Report Date/Time: Monday, October 28, 2019 13:27:27
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 133131.1 | 4.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 48624.2 | 4.0 | **100.7051** | 1.685 | 1.7 | ug/L | 1251 | Standard |
| | As-1 | 75 | 56000.5 | 3.9 | **101.1977** | 0.947 | 0.9 | ug/L | 44 | Standard |
| | Se | 77 | 3524.4 | 3.2 | **100.9475** | 2.775 | 2.7 | ug/L | 18 | Standard |
| | Se | 78 | 12505.8 | 3.0 | **100.1385** | 2.417 | 2.4 | ug/L | 1454 | Standard |
| | Br | 79 | 52.7 | 8.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 7662.1 | 4.1 | **100.6820** | 2.397 | 2.4 | ug/L | 32 | Standard |
| | Kr | 83 | 30.3 | 24.7 | | | | ug/L | 24 | Standard |
| | Y | 89 | 230870.6 | 0.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 191507.2 | 3.0 | | | | ug/L | 237344 | Standard |
| | In | 115 | 424322.9 | 1.6 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 260270.2 | 1.6 | **100.4986** | 2.289 | 2.3 | ug/L | 119 | Standard |
| | Ba | 137 | 430315.2 | 1.8 | **100.4183** | 2.074 | 2.1 | ug/L | 143 | Standard |
| > | Tb | 159 | 434845.0 | 3.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 452022.3 | 2.1 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 3788239.9 | 3.2 | **100.6033** | 0.688 | 0.7 | ug/L | 1070 | Standard |
| | Bi | 209 | 320301.5 | 2.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 448178.5 | 2.5 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5809.2 | 2.0 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 3580.4 | 3.9 | **100.5831** | 2.219 | 2.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 9481.8 | 3.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 67047.7 | 2.5 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6010.0 | 4.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Monday, October 28, 2019 12:12:17
Report Date/Time: Monday, October 28, 2019 13:27:30
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 131124.7 | 4.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 24974.5 | 5.4 | **51.4562** | 0.741 | 1.4 | ug/L | 1251 | Standard |
| | As-1 | 75 | 28346.3 | 6.6 | **51.9291** | 1.276 | 2.5 | ug/L | 44 | Standard |
| | Se | 77 | 1697.4 | 7.5 | **49.0748** | 2.058 | 4.2 | ug/L | 18 | Standard |
| | Se | 78 | 6838.6 | 5.0 | **50.9231** | 0.682 | 1.3 | ug/L | 1454 | Standard |
| | Br | 79 | 42.7 | 13.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 3914.5 | 8.6 | **51.2691** | 1.315 | 2.6 | ug/L | 32 | Standard |
| | Kr | 83 | 26.7 | 39.0 | | | | ug/L | 24 | Standard |
| | Y | 89 | 229396.5 | 4.4 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 191372.6 | 6.3 | | | | ug/L | 237344 | Standard |
| | In | 115 | 413486.9 | 3.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 130309.2 | 2.6 | **51.2823** | 0.530 | 1.0 | ug/L | 119 | Standard |
| | Ba | 137 | 217273.4 | 2.9 | **51.6810** | 0.510 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 426231.0 | 2.0 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 447759.4 | 2.7 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1879276.2 | 3.7 | **50.8853** | 0.891 | 1.8 | ug/L | 1070 | Standard |
| | Bi | 209 | 315206.8 | 2.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 444353.8 | 2.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5860.2 | 2.4 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1864.5 | 1.5 | **51.9168** | 0.764 | 1.5 | ug/L | 2 | KED |
| | Y-1 | 89 | 9963.5 | 2.0 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 70167.9 | 1.3 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6380.4 | 1.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 79.763 |
| | 75 | As | 102.912 | |
| | 75 | As-1 | 103.858 | |
| | 77 | Se | 98.150 | |
| | 78 | Se | 101.846 | |
| | 79 | Br | | |
| | 82 | Se | 102.538 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 80.631 |
| | 115 | In | | |
| | 135 | Ba | 102.565 | |
| | 137 | Ba | 103.362 | |
| > | 159 | Tb | | 77.870 |
| | 165 | Ho | | |
| | 208 | Pb | 101.771 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 81.757 |
| | 75As-2 | 103.834 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Monday, October 28, 2019 12:16:18
Report Date/Time: Monday, October 28, 2019 13:27:40
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 143298.5 | 0.7 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1062.8 | 2.8 | -0.0540 | 0.071 | 132.0 | ug/L | 1251 | Standard |
| | As-1 | 75 | 44.5 | 42.6 | 0.0109 | 0.033 | 299.0 | ug/L | 44 | Standard |
| | Se | 77 | 16.0 | 21.7 | 0.0006 | 0.093 | 15547.0 | ug/L | 18 | Standard |
| | Se | 78 | 1229.7 | 2.4 | -0.3069 | 0.273 | 89.1 | ug/L | 1454 | Standard |
| | Br | 79 | 53.0 | 11.5 | | | | ug/L | 63 | Standard |
| | Se | 82 | 28.0 | 18.6 | 0.0065 | 0.057 | 879.4 | ug/L | 32 | Standard |
| | Kr | 83 | 28.7 | 26.2 | | | | ug/L | 24 | Standard |
| | Y | 89 | 252304.8 | 4.8 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 205483.5 | 4.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 441745.4 | 1.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 90.0 | 11.5 | -0.0035 | 0.004 | 119.9 | ug/L | 119 | Standard |
| | Ba | 137 | 119.7 | 3.2 | -0.0000 | 0.001 | 3224.8 | ug/L | 143 | Standard |
| > | Tb | 159 | 457740.8 | 1.2 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 474420.8 | 2.3 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1048.0 | 2.7 | 0.0039 | 0.000 | 10.3 | ug/L | 1070 | Standard |
| | Bi | 209 | 337753.4 | 0.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 475857.1 | 1.0 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5976.9 | 1.0 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1.3 | 43.3 | -0.0168 | 0.016 | 93.5 | ug/L | 2 | KED |
| | Y-1 | 89 | 10103.2 | 2.3 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 69940.8 | 1.0 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6563.6 | 0.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 87.168 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 86.576 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 83.627 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 83.386 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

**Sample ID: QC Std 2**
Report Date/Time: Monday, October 28, 2019 13:27:40

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 3**

Sample Date/Time: Monday, October 28, 2019 12:19:31
Report Date/Time: Monday, October 28, 2019 13:27:45
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 134339.6 | 2.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 2036.7 | 0.7 | **2.1280** | 0.136 | 6.4 | ug/L | 1251 | Standard |
| | As-1 | 75 | 1196.3 | 3.8 | **2.0814** | 0.134 | 6.4 | ug/L | 44 | Standard |
| | Se | 77 | 81.7 | 6.7 | **1.9013** | 0.182 | 9.6 | ug/L | 18 | Standard |
| | Se | 78 | 1458.4 | 0.8 | **2.3741** | 0.397 | 16.7 | ug/L | 1454 | Standard |
| | Br | 79 | 52.0 | 21.4 | | | | ug/L | 63 | Standard |
| | Se | 82 | 186.0 | 8.9 | **1.9769** | 0.191 | 9.7 | ug/L | 32 | Standard |
| | Kr | 83 | 26.3 | 21.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 234191.2 | 2.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 202938.3 | 1.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 426090.5 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 5255.3 | 1.6 | **1.9955** | 0.041 | 2.0 | ug/L | 119 | Standard |
| | Ba | 137 | 8750.7 | 1.0 | **2.0182** | 0.030 | 1.5 | ug/L | 143 | Standard |
| > | Tb | 159 | 434170.3 | 0.5 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 451005.3 | 1.2 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 76235.5 | 1.7 | **2.0052** | 0.031 | 1.6 | ug/L | 1070 | Standard |
| | Bi | 209 | 321864.6 | 0.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 450751.3 | 1.1 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5909.6 | 0.8 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 83.3 | 6.6 | **2.2503** | 0.162 | 7.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 9883.4 | 0.4 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 68436.2 | 0.7 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6213.6 | 1.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 81.718 |
| | 75 | As | 106.399 | |
| | 75 | As-1 | 104.069 | |
| | 77 | Se | 95.066 | |
| | 78 | Se | 118.704 | |
| | 79 | Br | | |
| | 82 | Se | 98.843 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 85.504 |
| | 115 | In | | |
| | 135 | Ba | 99.777 | |
| | 137 | Ba | 100.911 | |
| > | 159 | Tb | | 79.321 |
| | 165 | Ho | | |
| | 208 | Pb | 100.261 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 82.446 |
| 75As-2 | 112.517 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 4**
Sample Date/Time: Monday, October 28, 2019 12:23:33
Report Date/Time: Monday, October 28, 2019 13:27:50
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 143122.7 | 1.0 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1341.1 | 2.7 | 0.4962 | 0.088 | 17.8 | ug/L | 1251 | Standard |
| | As-1 | 75 | 331.9 | 2.3 | 0.4940 | 0.012 | 2.5 | ug/L | 44 | Standard |
| | Se | 77 | 34.0 | 13.5 | 0.4826 | 0.126 | 26.0 | ug/L | 18 | Standard |
| | Se | 78 | 1322.1 | 1.5 | 0.4647 | 0.229 | 49.3 | ug/L | 1454 | Standard |
| | Br | 79 | 56.3 | 9.8 | | | | ug/L | 63 | Standard |
| | Se | 82 | 65.7 | 11.2 | 0.4672 | 0.087 | 18.5 | ug/L | 32 | Standard |
| | Kr | 83 | 24.0 | 23.2 | | | | ug/L | 24 | Standard |
| | Y | 89 | 245793.3 | 4.0 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 206387.5 | 5.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 443409.8 | 2.8 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 1462.4 | 4.6 | 0.5024 | 0.013 | 2.6 | ug/L | 119 | Standard |
| | Ba | 137 | 2328.5 | 2.1 | 0.4922 | 0.007 | 1.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 455441.9 | 2.6 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 470031.6 | 1.5 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 20350.7 | 1.2 | 0.4936 | 0.008 | 1.6 | ug/L | 1070 | Standard |
| | Bi | 209 | 336821.1 | 0.1 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 471299.2 | 1.2 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6171.3 | 0.7 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 21.7 | 35.3 | 0.5205 | 0.204 | 39.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 10636.3 | 1.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 72819.8 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6671.5 | 3.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 87.061 |
| | 75 | As | 99.232 | |
| | 75 | As-1 | 98.809 | |
| | 77 | Se | 96.515 | |
| | 78 | Se | 92.937 | |
| | 79 | Br | | |
| | 82 | Se | 93.438 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 86.957 |
| | 115 | In | | |
| | 135 | Ba | 100.474 | |
| | 137 | Ba | 98.436 | |
| | 159 | Tb | | 83.207 |
| > | 165 | Ho | | |
| | 208 | Pb | 98.719 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 86.098 |
| 75As-2 | 104.110 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, October 28, 2019 12:27:34
Report Date/Time: Monday, October 28, 2019 13:27:56
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 123184.8 | 0.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 17992.8 | 0.5 | **38.9751** | 0.320 | 0.8 | ug/L | 1251 | Standard |
| | As-1 | 75 | 20322.6 | 0.8 | **39.6406** | 0.408 | 1.0 | ug/L | 44 | Standard |
| | Se | 77 | 1294.7 | 0.6 | **39.7931** | 0.102 | 0.3 | ug/L | 18 | Standard |
| | Se | 78 | 5234.0 | 3.3 | **39.5708** | 1.776 | 4.5 | ug/L | 1454 | Standard |
| | Br | 79 | 44.0 | 6.8 | | | | ug/L | 63 | Standard |
| | Se | 82 | 2891.6 | 4.5 | **40.3870** | 0.485 | 1.2 | ug/L | 32 | Standard |
| | Kr | 83 | 32.3 | 30.5 | | | | ug/L | 24 | Standard |
| | Y | 89 | 214350.3 | 4.9 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 179341.4 | 5.2 | | | | ug/L | 237344 | Standard |
| | In | 115 | 401001.9 | 2.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 93095.5 | 2.8 | **38.4910** | 1.306 | 3.4 | ug/L | 119 | Standard |
| | Ba | 137 | 153500.1 | 1.7 | **38.3589** | 0.608 | 1.6 | ug/L | 143 | Standard |
| > | Tb | 159 | 405699.2 | 1.2 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 425152.6 | 1.5 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1357225.0 | 0.2 | **38.6156** | 0.405 | 1.0 | ug/L | 1070 | Standard |
| | Bi | 209 | 299547.8 | 0.9 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 422512.6 | 0.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5627.8 | 1.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1317.7 | 1.3 | **38.1887** | 0.508 | 1.3 | ug/L | 2 | KED |
| | Y-1 | 89 | 9390.8 | 0.7 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 64879.4 | 2.0 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6096.3 | 1.0 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 74.933 |
| | 75 | As | 97.438 | |
| | 75 | As-1 | 99.101 | |
| | 77 | Se | 99.483 | |
| | 78 | Se | 98.927 | |
| | 79 | Br | | |
| | 82 | Se | 100.968 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 75.562 |
| | 115 | In | | |
| | 135 | Ba | 96.227 | |
| | 137 | Ba | 95.897 | |
| > | 159 | Tb | | 74.119 |
| | 165 | Ho | | |
| | 208 | Pb | 96.539 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| L | 232Th | | |
| ⌈> | 72Ge-1 | | 78.515 |
| L | 75As-2 | 95.472 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

**Sample ID: QC Std 6**
Report Date/Time: Monday, October 28, 2019 13:27:56

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Monday, October 28, 2019 12:31:36
Report Date/Time: Monday, October 28, 2019 13:28:01
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 142990.0 | 2.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1057.3 | 1.5 | -0.0594 | 0.077 | 129.1 | ug/L | 1251 | Standard |
| | As-1 | 75 | 37.7 | 29.0 | -0.0005 | 0.019 | 3747.8 | ug/L | 44 | Standard |
| | Se | 77 | 11.0 | 15.7 | -0.1329 | 0.041 | 30.8 | ug/L | 18 | Standard |
| | Se | 78 | 1226.7 | 1.4 | -0.3050 | 0.361 | 118.2 | ug/L | 1454 | Standard |
| | Br | 79 | 50.3 | 12.9 | | | | ug/L | 63 | Standard |
| | Se | 82 | 26.3 | 19.5 | -0.0002 | 0.073 | 30250.8 | ug/L | 32 | Standard |
| | Kr | 83 | 23.7 | 2.4 | | | | ug/L | 24 | Standard |
| | Y | 89 | 235885.6 | 2.4 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 198099.1 | 2.2 | | | | ug/L | 237344 | Standard |
| | In | 115 | 443128.4 | 2.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 85.7 | 2.4 | -0.0048 | 0.001 | 13.9 | ug/L | 119 | Standard |
| | Ba | 137 | 108.0 | 5.6 | -0.0024 | 0.002 | 79.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 453931.7 | 3.7 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 470915.2 | 2.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 969.0 | 4.0 | 0.0021 | 0.001 | 28.6 | ug/L | 1070 | Standard |
| | Bi | 209 | 337254.1 | 1.0 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 473498.4 | 1.6 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6208.3 | 1.3 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1.3 | 114.6 | -0.0178 | 0.041 | 228.8 | ug/L | 2 | KED |
| | Y-1 | 89 | 10543.9 | 1.7 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 73225.5 | 1.1 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6873.9 | 1.3 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 86.980 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 83.465 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 82.931 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 86.614 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Monday, October 28, 2019 12:34:48
Report Date/Time: Monday, October 28, 2019 13:28:06
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 121836.6 | 2.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1083.6 | 8.3 | **0.3657** | 0.263 | 72.0 | ug/L | 1251 | Standard |
| | As-1 | 75 | 66.2 | 69.5 | **0.0682** | 0.093 | 136.1 | ug/L | 44 | Standard |
| | Se | 77 | 142.7 | 7.1 | **4.0535** | 0.283 | 7.0 | ug/L | 18 | Standard |
| | Se | 78 | 1238.7 | 6.3 | **1.5708** | 0.984 | 62.6 | ug/L | 1454 | Standard |
| | Br | 79 | 369.0 | 10.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 31.7 | 33.8 | **0.1649** | 0.159 | 96.7 | ug/L | 32 | Standard |
| | Kr | 83 | 59.7 | 15.1 | | | | ug/L | 24 | Standard |
| | Y | 89 | 209782.2 | 3.3 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 158791.9 | 3.2 | | | | ug/L | 237344 | Standard |
| | In | 115 | 363418.1 | 0.3 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 60.3 | 10.0 | **-0.0124** | 0.002 | 18.6 | ug/L | 119 | Standard |
| | Ba | 137 | 83.7 | 8.8 | **-0.0063** | 0.002 | 27.7 | ug/L | 143 | Standard |
| > | Tb | 159 | 419445.1 | 0.6 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 414977.7 | 0.5 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1352.4 | 2.9 | **0.0147** | 0.001 | 8.7 | ug/L | 1070 | Standard |
| | Bi | 209 | 266041.5 | 1.0 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 416927.6 | 1.1 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5160.9 | 2.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2.3 | 137.8 | **0.0212** | 0.102 | 481.6 | ug/L | 2 | KED |
| | Y-1 | 89 | 8859.7 | 2.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 55200.5 | 2.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 5502.0 | 3.0 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 74.113 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 66.904 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 76.630 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 72.002 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: ICSAB**

Sample Date/Time: Monday, October 28, 2019 12:38:49
Report Date/Time: Monday, October 28, 2019 13:28:12
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 123557.5 | 1.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 18592.9 | 2.9 | **40.2121** | 0.522 | 1.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 20905.3 | 2.8 | **40.6499** | 0.426 | 1.0 | ug/L | 44 | Standard |
| | Se | 77 | 1406.4 | 2.7 | **43.1274** | 0.620 | 1.4 | ug/L | 18 | Standard |
| | Se | 78 | 5506.1 | 1.1 | **42.0122** | 0.564 | 1.3 | ug/L | 1454 | Standard |
| | Br | 79 | 419.7 | 6.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 2984.3 | 2.6 | **43.1495** | 1.583 | 3.7 | ug/L | 32 | Standard |
| | Kr | 83 | 62.0 | 17.0 | | | | ug/L | 24 | Standard |
| | Y | 89 | 221561.8 | 1.5 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 173350.7 | 2.1 | | | | ug/L | 237344 | Standard |
| | In | 115 | 379934.7 | 1.2 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 92988.0 | 0.8 | **36.5871** | 0.583 | 1.6 | ug/L | 119 | Standard |
| | Ba | 137 | 155600.5 | 0.9 | **37.0071** | 0.397 | 1.1 | ug/L | 143 | Standard |
| > | Tb | 159 | 426262.3 | 0.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 429440.8 | 0.4 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1282388.9 | 0.5 | **34.7231** | 0.366 | 1.1 | ug/L | 1070 | Standard |
| | Bi | 209 | 269931.4 | 0.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 423660.9 | 1.2 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5253.0 | 1.1 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1273.7 | 2.3 | **39.5485** | 0.882 | 2.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 9087.9 | 2.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 57597.9 | 2.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 5724.1 | 2.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 75.160 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 73.038 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 77.876 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 73.286 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1028SM1 5X**

Sample Date/Time: Monday, October 28, 2019 12:46:39
Report Date/Time: Monday, October 28, 2019 13:28:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157716.5 | 0.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1068.8 | 2.4 | **-0.2342** | 0.057 | 24.4 | ug/L | 1251 | Standard |
| | As-1 | 75 | 40.5 | 22.6 | **-0.0023** | 0.014 | 595.2 | ug/L | 44 | Standard |
| | Se | 77 | 11.3 | 13.5 | **-0.1516** | 0.039 | 26.0 | ug/L | 18 | Standard |
| | Se | 78 | 1238.4 | 1.6 | **-1.1644** | 0.213 | 18.3 | ug/L | 1454 | Standard |
| | Br | 79 | 124.7 | 10.9 | | | | ug/L | 63 | Standard |
| | Se | 82 | 27.0 | 7.4 | **-0.0453** | 0.021 | 47.0 | ug/L | 32 | Standard |
| | Kr | 83 | 17.3 | 23.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 276679.9 | 3.3 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 233914.1 | 3.1 | | | | ug/L | 237344 | Standard |
| | In | 115 | 468098.6 | 0.9 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 206.3 | 3.2 | **0.0361** | 0.003 | 9.1 | ug/L | 119 | Standard |
| | Ba | 137 | 277.0 | 1.3 | **0.0323** | 0.000 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 477333.6 | 1.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 487293.4 | 1.7 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1066.3 | 2.2 | **0.0032** | 0.000 | 10.8 | ug/L | 1070 | Standard |
| | Bi | 209 | 352673.5 | 0.2 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 483134.2 | 0.4 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6417.1 | 1.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2.0 | 86.6 | **-0.0026** | 0.044 | 1657.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 11037.9 | 1.0 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 75559.0 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7170.9 | 1.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 95.938 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 98.555 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 87.206 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 89.527 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1028SM1 50X**

Sample Date/Time: Monday, October 28, 2019 12:50:39
Report Date/Time: Monday, October 28, 2019 13:28:20
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164725.9 | 2.1 | | | | ug/L | 164393 | Standard |
| | As | 75 | 22200.3 | 1.1 | **35.8100** | 1.092 | 3.0 | ug/L | 1251 | Standard |
| | As-1 | 75 | 26239.8 | 0.5 | **38.2820** | 0.732 | 1.9 | ug/L | 44 | Standard |
| | Se | 77 | 1620.4 | 4.0 | **37.2098** | 0.947 | 2.5 | ug/L | 18 | Standard |
| | Se | 78 | 6719.6 | 2.5 | **37.5700** | 0.202 | 0.5 | ug/L | 1454 | Standard |
| | Br | 79 | 54.7 | 17.0 | | | | ug/L | 63 | Standard |
| | Se | 82 | 4148.6 | 3.6 | **39.5827** | 1.087 | 2.7 | ug/L | 32 | Standard |
| | Kr | 83 | 25.3 | 26.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 308887.4 | 3.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 262386.8 | 1.6 | | | | ug/L | 237344 | Standard |
| | In | 115 | 483727.7 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 107147.4 | 2.2 | **37.0826** | 1.222 | 3.3 | ug/L | 119 | Standard |
| | Ba | 137 | 176218.6 | 0.9 | **36.8618** | 0.676 | 1.8 | ug/L | 143 | Standard |
| > | Tb | 159 | 484688.1 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 501623.8 | 1.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 4059504.2 | 1.0 | **96.7119** | 1.492 | 1.5 | ug/L | 1070 | Standard |
| | Bi | 209 | 353140.9 | 0.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 496576.2 | 0.9 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6780.3 | 3.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1496.1 | 0.8 | **36.0086** | 1.230 | 3.4 | ug/L | 2 | KED |
| | Y-1 | 89 | 11869.9 | 1.3 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 79814.3 | 0.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7765.7 | 0.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 100.202 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 110.551 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.550 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 94.594 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02a 10X

Sample Date/Time: Monday, October 28, 2019 12:54:39
Report Date/Time: Monday, October 28, 2019 13:28:23
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexIONData\Sample\X191028A.sam
Method File: C:\NexIONData\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 147230.3 | 1.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 23989.8 | 1.0 | **43.7295** | 0.518 | 1.2 | ug/L | 1251 | Standard |
| | As-1 | 75 | 23068.1 | 1.0 | **37.6461** | 0.375 | 1.0 | ug/L | 44 | Standard |
| | Se | 77 | 51.0 | 18.7 | **0.9008** | 0.262 | 29.1 | ug/L | 18 | Standard |
| | Se | 78 | 1287.4 | 3.9 | **-0.1113** | 0.539 | 484.3 | ug/L | 1454 | Standard |
| | Br | 79 | 292.0 | 5.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 89.3 | 6.2 | **0.7851** | 0.076 | 9.7 | ug/L | 32 | Standard |
| | Kr | 83 | 63.3 | 10.5 | | | | ug/L | 24 | Standard |
| | Y | 89 | 275476.8 | 1.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 201111.1 | 0.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 435729.8 | 0.7 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 295491.3 | 1.6 | **97.2867** | 0.812 | 0.8 | ug/L | 119 | Standard |
| | Ba | 137 | 496637.6 | 0.2 | **98.8350** | 0.960 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 509661.9 | 0.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 500137.6 | 0.8 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 487114.0 | 1.1 | **11.0154** | 0.101 | 0.9 | ug/L | 1070 | Standard |
| | Bi | 209 | 322564.8 | 0.5 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 681092.0 | 1.0 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 5896.6 | 0.9 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1655.8 | 2.0 | **45.8046** | 0.663 | 1.4 | ug/L | 2 | KED |
| | Y-1 | 89 | 11289.1 | 1.2 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 67573.8 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6695.0 | 0.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 89.560 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 84.734 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 93.112 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 82.264 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02aD 10X

Sample Date/Time: Monday, October 28, 2019 12:58:38
Report Date/Time: Monday, October 28, 2019 13:28:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150781.2 | 2.4 | | | | ug/L | 164393 | Standard |
| | As | 75 | 30213.5 | 1.4 | **54.2754** | 0.816 | 1.5 | ug/L | 1251 | Standard |
| | As-1 | 75 | 29255.7 | 1.4 | **46.6404** | 0.653 | 1.4 | ug/L | 44 | Standard |
| | Se | 77 | 48.3 | 9.8 | **0.7985** | 0.092 | 11.5 | ug/L | 18 | Standard |
| | Se | 78 | 1321.1 | 2.2 | **-0.0948** | 0.148 | 156.5 | ug/L | 1454 | Standard |
| | Br | 79 | 314.3 | 2.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 86.7 | 9.3 | **0.7512** | 0.121 | 16.1 | ug/L | 32 | Standard |
| | Kr | 83 | 70.0 | 10.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 272808.7 | 3.2 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 201426.5 | 3.4 | | | | ug/L | 237344 | Standard |
| | In | 115 | 440378.5 | 0.7 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 273948.6 | 1.1 | **90.2697** | 0.348 | 0.4 | ug/L | 119 | Standard |
| | Ba | 137 | 462316.3 | 1.6 | **92.0702** | 0.570 | 0.6 | ug/L | 143 | Standard |
| > | Tb | 159 | 509240.1 | 1.0 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 504562.0 | 0.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 504700.5 | 0.7 | **11.4235** | 0.043 | 0.4 | ug/L | 1070 | Standard |
| | Bi | 209 | 323336.9 | 0.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 678202.7 | 0.2 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6137.0 | 1.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2105.5 | 1.2 | **55.9776** | 0.166 | 0.3 | ug/L | 2 | KED |
| | Y-1 | 89 | 11494.3 | 0.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 69115.1 | 0.3 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 6962.2 | 2.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.720 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 84.867 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 93.035 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

85.619

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aL 50X**
Sample Date/Time: Monday, October 28, 2019 13:02:39
Report Date/Time: Monday, October 28, 2019 13:28:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157812.1 | 1.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 5702.3 | 2.4 | **8.0286** | 0.067 | 0.8 | ug/L | 1251 | Standard |
| | As-1 | 75 | 4603.5 | 2.5 | **6.9556** | 0.057 | 0.8 | ug/L | 44 | Standard |
| | Se | 77 | 25.7 | 23.5 | **0.1943** | 0.138 | 70.8 | ug/L | 18 | Standard |
| | Se | 78 | 1346.4 | 3.7 | **-0.3676** | 0.247 | 67.1 | ug/L | 1454 | Standard |
| | Br | 79 | 115.0 | 4.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 37.3 | 18.8 | **0.0534** | 0.066 | 124.0 | ug/L | 32 | Standard |
| | Kr | 83 | 29.7 | 17.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 298684.7 | 1.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 241056.0 | 2.6 | | | | ug/L | 237344 | Standard |
| | In | 115 | 457152.3 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 56462.7 | 1.7 | **19.4488** | 0.322 | 1.7 | ug/L | 119 | Standard |
| | Ba | 137 | 94213.4 | 1.6 | **19.6212** | 0.189 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 486444.1 | 0.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 492211.8 | 0.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 97609.9 | 1.1 | **2.2950** | 0.045 | 2.0 | ug/L | 1070 | Standard |
| | Bi | 209 | 340082.7 | 0.5 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 526078.9 | 0.5 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6478.8 | 0.8 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 336.0 | 0.3 | **8.4170** | 0.056 | 0.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 11454.9 | 1.2 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 74907.6 | 1.9 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7329.6 | 2.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 95.997 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 101.564 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.871 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 90.388 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02aMS 50X

Sample Date/Time: Monday, October 28, 2019 13:06:41
Report Date/Time: Monday, October 28, 2019 13:28:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 155618.9 | 1.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 24704.3 | 1.0 | **42.5555** | 0.954 | 2.2 | ug/L | 1251 | Standard |
| | As-1 | 75 | 28074.2 | 1.1 | **43.3648** | 1.091 | 2.5 | ug/L | 44 | Standard |
| | Se | 77 | 1450.7 | 4.3 | **35.2472** | 1.389 | 3.9 | ug/L | 18 | Standard |
| | Se | 78 | 6120.0 | 0.4 | **35.8616** | 1.032 | 2.9 | ug/L | 1454 | Standard |
| | Br | 79 | 114.0 | 5.5 | | | | ug/L | 63 | Standard |
| | Se | 82 | 3649.8 | 1.7 | **38.6828** | 0.879 | 2.3 | ug/L | 32 | Standard |
| | Kr | 83 | 20.3 | 5.7 | | | | ug/L | 24 | Standard |
| | Y | 89 | 296376.1 | 2.9 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 236312.2 | 3.6 | | | | ug/L | 237344 | Standard |
| | In | 115 | 456825.7 | 1.1 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 150528.6 | 1.0 | **51.4543** | 0.131 | 0.3 | ug/L | 119 | Standard |
| | Ba | 137 | 249428.4 | 0.8 | **51.5363** | 0.204 | 0.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 490756.8 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 496766.6 | 0.8 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 3883540.4 | 0.3 | **91.3752** | 1.166 | 1.3 | ug/L | 1070 | Standard |
| | Bi | 209 | 332773.1 | 0.9 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 517148.1 | 0.8 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6459.8 | 0.8 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1680.1 | 1.4 | **42.4267** | 0.853 | 2.0 | ug/L | 2 | KED |
| | Y-1 | 89 | 11419.6 | 1.3 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 73958.3 | 1.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7319.4 | 2.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 94.662 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 99.565 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 89.659 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 90.122 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aMSD 50X**

Sample Date/Time: Monday, October 28, 2019 13:10:43
Report Date/Time: Monday, October 28, 2019 13:28:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157287.1 | 2.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 25492.8 | 0.9 | **43.4937** | 0.794 | 1.8 | ug/L | 1251 | Standard |
| | As-1 | 75 | 28916.0 | 0.9 | **44.1974** | 1.214 | 2.7 | ug/L | 44 | Standard |
| | Se | 77 | 1449.7 | 5.8 | **34.8255** | 1.274 | 3.7 | ug/L | 18 | Standard |
| | Se | 78 | 6155.0 | 2.0 | **35.6221** | 0.124 | 0.3 | ug/L | 1454 | Standard |
| | Br | 79 | 103.7 | 1.1 | | | | ug/L | 63 | Standard |
| | Se | 82 | 3684.8 | 4.9 | **38.3113** | 1.962 | 5.1 | ug/L | 32 | Standard |
| | Kr | 83 | 29.0 | 36.0 | | | | ug/L | 24 | Standard |
| | Y | 89 | 290690.8 | 3.3 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 240953.7 | 5.0 | | | | ug/L | 237344 | Standard |
| | In | 115 | 454462.5 | 0.9 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 151743.4 | 1.2 | **52.3634** | 0.303 | 0.6 | ug/L | 119 | Standard |
| | Ba | 137 | 255526.1 | 0.9 | **53.3000** | 0.385 | 0.7 | ug/L | 143 | Standard |
| > | Tb | 159 | 486149.2 | 1.6 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 491342.9 | 0.5 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 3941720.0 | 1.0 | **93.6313** | 1.812 | 1.9 | ug/L | 1070 | Standard |
| | Bi | 209 | 331954.6 | 0.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 516994.0 | 0.3 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6385.8 | 0.4 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1741.1 | 2.0 | **44.4744** | 0.776 | 1.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 11255.1 | 1.3 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 74676.0 | 1.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7333.7 | 2.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 95.677 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 101.521 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.817 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 89.090 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aPS 10X**

Sample Date/Time: Monday, October 28, 2019 13:14:44
Report Date/Time: Monday, October 28, 2019 13:28:35
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 146141.4 | 0.9 | | | | ug/L | 164393 | Standard |
| | As | 75 | 44092.3 | 0.6 | **82.7914** | 0.607 | 0.7 | ug/L | 1251 | Standard |
| | As-1 | 75 | 46981.5 | 0.5 | **77.3064** | 0.355 | 0.5 | ug/L | 44 | Standard |
| | Se | 77 | 1528.4 | 0.7 | **39.5976** | 0.554 | 1.4 | ug/L | 18 | Standard |
| | Se | 78 | 6243.4 | 1.0 | **39.8452** | 0.785 | 2.0 | ug/L | 1454 | Standard |
| | Br | 79 | 304.7 | 4.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 3495.1 | 2.2 | **42.5106** | 0.930 | 2.2 | ug/L | 32 | Standard |
| | Kr | 83 | 68.7 | 8.0 | | | | ug/L | 24 | Standard |
| | Y | 89 | 279306.5 | 1.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 206082.4 | 4.1 | | | | ug/L | 237344 | Standard |
| | In | 115 | 434715.4 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 389842.7 | 0.4 | **130.3439** | 1.527 | 1.2 | ug/L | 119 | Standard |
| | Ba | 137 | 653834.3 | 0.8 | **132.1148** | 0.084 | 0.1 | ug/L | 143 | Standard |
| > | Tb | 159 | 501968.2 | 0.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 502012.7 | 0.8 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1883986.9 | 0.6 | **43.3241** | 0.444 | 1.0 | ug/L | 1070 | Standard |
| | Bi | 209 | 320130.6 | 0.5 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 675011.1 | 0.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6100.6 | 0.8 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 3071.0 | 1.6 | **82.1699** | 2.045 | 2.5 | ug/L | 2 | KED |
| | Y-1 | 89 | 11441.9 | 1.4 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 69283.3 | 0.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7011.5 | 1.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recovint Std % Recovery |
|---|---|---|
| > | 72Ge | 88.897 |
| | 75As | |
| | 75As-1 | |
| | 77Se | |
| | 78Se | |
| | 79Br | |
| | 82Se | |
| | 83Kr | |
| | 89Y | |
| > | 103Rh | 86.829 |
| | 115In | |
| | 135Ba | |
| | 137Ba | |
| > | 159Tb | 91.707 |
| | 165Ho | |
| | 208Pb | |
| | 209Bi | |

232Th
72Ge-1 85.112
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, October 28, 2019 13:18:45
Report Date/Time: Monday, October 28, 2019 13:28:36
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 149971.2 | 1.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 21067.3 | 1.5 | **37.4006** | 0.154 | 0.4 | ug/L | 1251 | Standard |
| | As-1 | 75 | 24997.9 | 2.5 | **40.0467** | 0.517 | 1.3 | ug/L | 44 | Standard |
| | Se | 77 | 1518.7 | 1.2 | **38.3278** | 0.489 | 1.3 | ug/L | 18 | Standard |
| | Se | 78 | 6444.5 | 1.3 | **40.1389** | 0.806 | 2.0 | ug/L | 1454 | Standard |
| | Br | 79 | 67.0 | 3.9 | | | | ug/L | 63 | Standard |
| | Se | 82 | 4002.2 | 3.4 | **41.8639** | 1.275 | 3.0 | ug/L | 32 | Standard |
| | Kr | 83 | 15.7 | 13.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 278368.3 | 4.4 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 239735.2 | 6.0 | | | | ug/L | 237344 | Standard |
| | In | 115 | 436615.1 | 0.4 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 99047.9 | 0.9 | **37.5581** | 0.533 | 1.4 | ug/L | 119 | Standard |
| | Ba | 137 | 163371.9 | 0.3 | **37.4464** | 0.226 | 0.6 | ug/L | 143 | Standard |
| > | Tb | 159 | 442300.2 | 0.8 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 461470.8 | 1.1 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1491146.4 | 1.1 | **38.9131** | 0.467 | 1.2 | ug/L | 1070 | Standard |
| | Bi | 209 | 328105.1 | 1.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 463501.2 | 1.5 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6131.0 | 3.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1442.7 | 1.0 | **38.4031** | 1.221 | 3.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 10782.4 | 1.2 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 72874.7 | 0.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7285.5 | 3.0 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.227 |
| | 75 | As | 93.502 | |
| | 75 | As-1 | 100.117 | |
| | 77 | Se | 95.819 | |
| | 78 | Se | 100.347 | |
| | 79 | Br | | |
| | 82 | Se | 104.660 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 101.007 |
| | 115 | In | | |
| | 135 | Ba | 93.895 | |
| | 137 | Ba | 93.616 | |
| > | 159 | Tb | | 80.806 |
| | 165 | Ho | | |
| | 208 | Pb | 97.283 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 85.535 |
| 75As-2 | 96.008 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

**Sample ID: QC Std 6**
Report Date/Time: Monday, October 28, 2019 13:28:36

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Monday, October 28, 2019 13:22:47
Report Date/Time: Monday, October 28, 2019 13:28:39
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164188.6 | 1.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1145.0 | 1.1 | -0.1787 | 0.039 | 21.7 | ug/L | 1251 | Standard |
| | As-1 | 75 | 15.8 | 262.9 | -0.0404 | 0.061 | 151.8 | ug/L | 44 | Standard |
| | Se | 77 | 18.3 | 8.3 | 0.0005 | 0.034 | 6921.7 | ug/L | 18 | Standard |
| | Se | 78 | 1329.1 | 3.6 | -0.8799 | 0.308 | 35.0 | ug/L | 1454 | Standard |
| | Br | 79 | 65.7 | 12.3 | | | | ug/L | 63 | Standard |
| | Se | 82 | 18.3 | 28.0 | -0.1627 | 0.050 | 30.8 | ug/L | 32 | Standard |
| | Kr | 83 | 14.3 | 4.0 | | | | ug/L | 24 | Standard |
| | Y | 89 | 311781.5 | 3.3 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 266366.3 | 2.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 483546.7 | 1.2 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 85.0 | 12.5 | -0.0073 | 0.004 | 48.5 | ug/L | 119 | Standard |
| | Ba | 137 | 119.3 | 5.7 | -0.0018 | 0.002 | 86.1 | ug/L | 143 | Standard |
| > | Tb | 159 | 487975.7 | 0.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 504705.2 | 1.0 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1010.7 | 2.3 | 0.0013 | 0.001 | 47.0 | ug/L | 1070 | Standard |
| | Bi | 209 | 358410.4 | 0.4 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 501755.1 | 0.2 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6853.0 | 1.0 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2.0 | 50.0 | -0.0054 | 0.024 | 439.8 | ug/L | 2 | KED |
| | Y-1 | 89 | 11951.3 | 1.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 80487.4 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8045.5 | 1.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 99.875 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 112.228 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 89.151 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 95.608 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02a 25X**

Sample Date/Time: Monday, October 28, 2019 13:39:52
Report Date/Time: Monday, October 28, 2019 13:41:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157587.2 | 1.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 10364.5 | 0.9 | **16.3747** | 0.351 | 2.1 | ug/L | 1251 | Standard |
| | As-1 | 75 | 9263.3 | 0.9 | **14.0846** | 0.258 | 1.8 | ug/L | 44 | Standard |
| | Se | 77 | 31.3 | 12.9 | **0.3335** | 0.091 | 27.4 | ug/L | 18 | Standard |
| | Se | 78 | 1366.4 | 1.3 | **-0.2004** | 0.263 | 131.3 | ug/L | 1454 | Standard |
| | Br | 79 | 179.3 | 1.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 43.7 | 5.8 | **0.1332** | 0.017 | 12.6 | ug/L | 32 | Standard |
| | Kr | 83 | 36.7 | 12.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 303026.5 | 4.2 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 234466.5 | 3.3 | | | | ug/L | 237344 | Standard |
| | In | 115 | 452975.6 | 1.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 117177.0 | 1.3 | **39.4973** | 0.234 | 0.6 | ug/L | 119 | Standard |
| | Ba | 137 | 195935.7 | 1.6 | **39.9224** | 0.307 | 0.8 | ug/L | 143 | Standard |
| > | Tb | 159 | 497550.9 | 0.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 498753.3 | 1.8 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 194145.9 | 0.6 | **4.4839** | 0.028 | 0.6 | ug/L | 1070 | Standard |
| | Bi | 209 | 327337.7 | 1.1 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 555283.4 | 0.9 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6431.8 | 0.5 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 669.0 | 3.1 | **16.9352** | 0.559 | 3.3 | ug/L | 2 | KED |
| | Y-1 | 89 | 11949.7 | 0.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 75009.1 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7561.8 | 1.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 95.860 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 98.788 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 90.900 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 89.732 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02aD 25X

Sample Date/Time: Monday, October 28, 2019 13:43:53
Report Date/Time: Monday, October 28, 2019 13:45:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154853.3 | 1.9 | | | | ug/L | 164393 | Standard |
| | As | 75 | 12890.0 | 0.4 | **21.2964** | 0.533 | 2.5 | ug/L | 1251 | Standard |
| | As-1 | 75 | 11808.6 | 0.7 | **18.2938** | 0.457 | 2.5 | ug/L | 44 | Standard |
| | Se | 77 | 25.0 | 10.6 | **0.1915** | 0.071 | 37.1 | ug/L | 18 | Standard |
| | Se | 78 | 1345.7 | 2.3 | **-0.1775** | 0.293 | 165.2 | ug/L | 1454 | Standard |
| | Br | 79 | 160.0 | 5.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 44.3 | 17.2 | **0.1660** | 0.102 | 61.4 | ug/L | 32 | Standard |
| | Kr | 83 | 28.0 | 14.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 289108.2 | 2.0 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 223650.5 | 3.5 | | | | ug/L | 237344 | Standard |
| | In | 115 | 450680.3 | 1.6 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 103410.9 | 0.7 | **35.3755** | 0.413 | 1.2 | ug/L | 119 | Standard |
| | Ba | 137 | 175155.2 | 0.4 | **36.2222** | 0.489 | 1.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 490246.3 | 1.0 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 488931.0 | 2.2 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 194997.4 | 0.7 | **4.5711** | 0.021 | 0.5 | ug/L | 1070 | Standard |
| | Bi | 209 | 332269.6 | 1.0 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 551873.4 | 0.1 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6510.1 | 1.7 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 862.4 | 0.4 | **21.5849** | 0.412 | 1.9 | ug/L | 2 | KED |
| | Y-1 | 89 | 11792.9 | 1.5 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 72833.5 | 0.9 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7359.5 | 1.1 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 94.197 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 94.230 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 89.565 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 90.825 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aL 125X**

Sample Date/Time: Monday, October 28, 2019 13:47:54
Report Date/Time: Monday, October 28, 2019 13:49:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161454.0 | 1.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 2976.1 | 2.4 | 3.0466 | 0.099 | 3.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 1840.7 | 3.9 | 2.6795 | 0.097 | 3.6 | ug/L | 44 | Standard |
| | Se | 77 | 20.3 | 44.6 | 0.0539 | 0.211 | 391.8 | ug/L | 18 | Standard |
| | Se | 78 | 1343.4 | 1.2 | -0.6144 | 0.026 | 4.2 | ug/L | 1454 | Standard |
| | Br | 79 | 72.3 | 9.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 21.0 | 21.8 | -0.1163 | 0.046 | 39.3 | ug/L | 32 | Standard |
| | Kr | 83 | 14.7 | 20.8 | | | | ug/L | 24 | Standard |
| | Y | 89 | 295195.1 | 2.4 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 240058.7 | 4.7 | | | | ug/L | 237344 | Standard |
| | In | 115 | 452013.6 | 0.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 22377.5 | 0.6 | 7.9415 | 0.139 | 1.8 | ug/L | 119 | Standard |
| | Ba | 137 | 37121.2 | 0.9 | 7.9707 | 0.070 | 0.9 | ug/L | 143 | Standard |
| > | Tb | 159 | 470919.5 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 482539.4 | 1.0 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 38710.4 | 0.6 | 0.9269 | 0.016 | 1.7 | ug/L | 1070 | Standard |
| | Bi | 209 | 340242.8 | 0.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 495798.8 | 1.1 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6602.5 | 1.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 151.0 | 7.6 | 3.6826 | 0.298 | 8.1 | ug/L | 2 | KED |
| | Y-1 | 89 | 11753.2 | 0.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 76044.9 | 0.9 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7806.0 | 1.1 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 98.212 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 101.144 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 86.034 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 92.114 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aPS 25X**

Sample Date/Time: Monday, October 28, 2019 13:51:55
Report Date/Time: Monday, October 28, 2019 13:53:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161661.9 | 2.4 | | | | ug/L | 164393 | Standard |
| | As | 75 | 31142.2 | 1.5 | **52.1074** | 1.634 | 3.1 | ug/L | 1251 | Standard |
| | As-1 | 75 | 34825.3 | 2.4 | **51.7913** | 1.308 | 2.5 | ug/L | 44 | Standard |
| | Se | 77 | 1570.8 | 2.9 | **36.7572** | 0.835 | 2.3 | ug/L | 18 | Standard |
| | Se | 78 | 6506.8 | 1.8 | **36.9446** | 0.926 | 2.5 | ug/L | 1454 | Standard |
| | Br | 79 | 156.7 | 4.8 | | | | ug/L | 63 | Standard |
| | Se | 82 | 3922.2 | 5.4 | **41.1749** | 0.909 | 2.2 | ug/L | 32 | Standard |
| | Kr | 83 | 30.3 | 9.5 | | | | ug/L | 24 | Standard |
| | Y | 89 | 299328.8 | 5.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 238543.6 | 4.4 | | | | ug/L | 237344 | Standard |
| | In | 115 | 449657.9 | 0.4 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 221090.1 | 0.7 | **75.3933** | 0.318 | 0.4 | ug/L | 119 | Standard |
| | Ba | 137 | 371957.2 | 1.1 | **76.6640** | 0.754 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 492052.3 | 1.2 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 498482.5 | 0.2 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1710772.7 | 0.5 | **40.1327** | 0.384 | 1.0 | ug/L | 1070 | Standard |
| | Bi | 209 | 332170.1 | 0.4 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 563816.1 | 1.4 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6666.6 | 0.1 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2173.2 | 0.7 | **53.1846** | 0.383 | 0.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 12305.6 | 0.8 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 76205.7 | 0.4 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7748.2 | 1.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 98.338 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 100.505 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 89.895 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

93.007

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-01 10X**
Sample Date/Time: Monday, October 28, 2019 13:56:29
Report Date/Time: Monday, October 28, 2019 13:58:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154089.3 | 1.0 | | | | ug/L | 164393 | Standard |
| | As | 75 | 60302.3 | 0.8 | **108.0235** | 0.612 | 0.6 | ug/L | 1251 | Standard |
| | As-1 | 75 | 59328.7 | 0.8 | **92.6001** | 0.415 | 0.4 | ug/L | 44 | Standard |
| | Se | 77 | 44.3 | 15.4 | **0.6739** | 0.165 | 24.5 | ug/L | 18 | Standard |
| | Se | 78 | 1300.7 | 2.4 | **-0.4708** | 0.310 | 65.8 | ug/L | 1454 | Standard |
| | Br | 79 | 266.0 | 3.0 | | | | ug/L | 63 | Standard |
| | Se | 82 | 72.7 | 20.7 | **0.5985** | 0.210 | 35.1 | ug/L | 32 | Standard |
| | Kr | 83 | 104.3 | 11.0 | | | | ug/L | 24 | Standard |
| | Y | 89 | 351033.4 | 5.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 196903.8 | 5.6 | | | | ug/L | 237344 | Standard |
| | In | 115 | 433277.3 | 1.2 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 55675.6 | 1.0 | **18.0347** | 0.036 | 0.2 | ug/L | 119 | Standard |
| | Ba | 137 | 94369.7 | 0.6 | **18.4851** | 0.123 | 0.7 | ug/L | 143 | Standard |
| > | Tb | 159 | 517188.0 | 1.0 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 510561.4 | 1.3 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 432046.8 | 0.1 | **9.6256** | 0.102 | 1.1 | ug/L | 1070 | Standard |
| | Bi | 209 | 319823.0 | 1.0 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 537552.0 | 0.3 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6295.4 | 1.1 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 4341.0 | 2.7 | **112.5871** | 4.040 | 3.6 | ug/L | 2 | KED |
| | Y-1 | 89 | 15452.0 | 0.8 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 69671.8 | 0.4 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7277.3 | 2.4 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 93.732 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 82.961 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 94.487 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

87.829

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-03 10X**

Sample Date/Time: Monday, October 28, 2019 14:00:29
Report Date/Time: Monday, October 28, 2019 14:02:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 152374.9 | 2.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 35630.9 | 1.7 | **63.6916** | 0.942 | 1.5 | ug/L | 1251 | Standard |
| | As-1 | 75 | 34753.0 | 1.8 | **54.8325** | 0.762 | 1.4 | ug/L | 44 | Standard |
| | Se | 77 | 61.0 | 8.2 | **1.1038** | 0.091 | 8.3 | ug/L | 18 | Standard |
| | Se | 78 | 1276.7 | 1.8 | **-0.5428** | 0.271 | 49.9 | ug/L | 1454 | Standard |
| | Br | 79 | 533.0 | 0.9 | | | | ug/L | 63 | Standard |
| | Se | 82 | 103.7 | 11.1 | **0.9113** | 0.100 | 11.0 | ug/L | 32 | Standard |
| | Kr | 83 | 87.7 | 11.5 | | | | ug/L | 24 | Standard |
| | Y | 89 | 527092.5 | 3.2 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 209401.1 | 3.5 | | | | ug/L | 237344 | Standard |
| | In | 115 | 434636.4 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 538155.6 | 0.9 | **170.0871** | 0.384 | 0.2 | ug/L | 119 | Standard |
| | Ba | 137 | 912090.0 | 0.4 | **174.2277** | 0.993 | 0.6 | ug/L | 143 | Standard |
| > | Tb | 159 | 531025.0 | 0.9 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 527263.7 | 0.4 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 377145.1 | 1.2 | **8.1795** | 0.042 | 0.5 | ug/L | 1070 | Standard |
| | Bi | 209 | 324665.2 | 0.5 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 628011.8 | 0.2 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6488.1 | 0.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2653.6 | 3.2 | **66.7476** | 2.366 | 3.5 | ug/L | 2 | KED |
| | Y-1 | 89 | 23122.4 | 1.8 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 71623.8 | 0.4 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7439.9 | 0.9 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 92.689 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 88.227 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 97.015 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 90.518 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-04 10X**

Sample Date/Time: Monday, October 28, 2019 14:04:29
Report Date/Time: Monday, October 28, 2019 14:06:08
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 152457.5 | 3.5 | | | | ug/L | 164393 | Standard |
| | As | 75 | 12071.3 | 0.6 | **20.1655** | 0.830 | 4.1 | ug/L | 1251 | Standard |
| | As-1 | 75 | 11119.7 | 0.4 | **17.5039** | 0.633 | 3.6 | ug/L | 44 | Standard |
| | Se | 77 | 60.0 | 11.7 | **1.0773** | 0.141 | 13.1 | ug/L | 18 | Standard |
| | Se | 78 | 1295.7 | 3.2 | **-0.3972** | 0.454 | 114.3 | ug/L | 1454 | Standard |
| | Br | 79 | 694.4 | 3.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 80.0 | 7.6 | **0.6241** | 0.036 | 5.8 | ug/L | 32 | Standard |
| | Kr | 83 | 80.7 | 4.4 | | | | ug/L | 24 | Standard |
| | Y | 89 | 490874.9 | 1.9 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 210012.9 | 3.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 434814.5 | 0.9 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 510784.7 | 0.6 | **167.2085** | 0.422 | 0.3 | ug/L | 119 | Standard |
| | Ba | 137 | 852956.2 | 0.4 | **168.7550** | 1.088 | 0.6 | ug/L | 143 | Standard |
| > | Tb | 159 | 512690.5 | 0.5 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 516445.7 | 1.1 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 297640.4 | 0.6 | **6.6820** | 0.004 | 0.1 | ug/L | 1070 | Standard |
| | Bi | 209 | 325896.7 | 1.1 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 626764.8 | 1.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6530.5 | 1.7 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 847.7 | 2.1 | **21.1452** | 0.083 | 0.4 | ug/L | 2 | KED |
| | Y-1 | 89 | 21070.5 | 0.5 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 72321.3 | 0.7 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7559.4 | 1.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 92.739 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 88.485 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 93.666 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 91.109
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-05 10X**

Sample Date/Time: Monday, October 28, 2019 14:08:29
Report Date/Time: Monday, October 28, 2019 14:10:09
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150494.2 | 2.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 31828.8 | 2.4 | **57.3940** | 0.483 | 0.8 | ug/L | 1251 | Standard |
| | As-1 | 75 | 30916.9 | 2.6 | **49.3758** | 0.486 | 1.0 | ug/L | 44 | Standard |
| | Se | 77 | 55.7 | 9.0 | **0.9880** | 0.109 | 11.0 | ug/L | 18 | Standard |
| | Se | 78 | 1308.1 | 2.8 | **-0.1753** | 0.331 | 189.0 | ug/L | 1454 | Standard |
| | Br | 79 | 867.0 | 4.8 | | | | ug/L | 63 | Standard |
| | Se | 82 | 101.0 | 22.1 | **0.9262** | 0.255 | 27.6 | ug/L | 32 | Standard |
| | Kr | 83 | 131.7 | 18.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 355817.2 | 2.3 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 201363.3 | 2.0 | | | | ug/L | 237344 | Standard |
| | In | 115 | 424065.4 | 0.4 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 335608.4 | 0.4 | **111.3919** | 1.508 | 1.4 | ug/L | 119 | Standard |
| | Ba | 137 | 566835.0 | 1.5 | **113.6970** | 1.056 | 0.9 | ug/L | 143 | Standard |
| > | Tb | 159 | 505669.6 | 1.5 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 497170.6 | 0.8 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 449112.4 | 1.1 | **10.2350** | 0.063 | 0.6 | ug/L | 1070 | Standard |
| | Bi | 209 | 318060.8 | 0.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 637447.8 | 1.0 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6214.4 | 2.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2339.5 | 0.8 | **61.4646** | 1.975 | 3.2 | ug/L | 2 | KED |
| | Y-1 | 89 | 15586.2 | 0.4 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 69487.9 | 1.3 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7288.7 | 0.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.545 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 84.840 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.383 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 86.698 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-06 10X**

Sample Date/Time: Monday, October 28, 2019 14:12:30
Report Date/Time: Monday, October 28, 2019 14:14:10
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154858.6 | 1.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 77658.1 | 1.1 | **139.0293** | 1.408 | 1.0 | ug/L | 1251 | Standard |
| | As-1 | 75 | 76735.6 | 1.2 | **119.1950** | 1.174 | 1.0 | ug/L | 44 | Standard |
| | Se | 77 | 63.0 | 8.8 | **1.1310** | 0.151 | 13.3 | ug/L | 18 | Standard |
| | Se | 78 | 1280.1 | 2.0 | **-0.6761** | 0.307 | 45.5 | ug/L | 1454 | Standard |
| | Br | 79 | 939.4 | 2.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 86.3 | 10.4 | **0.7179** | 0.108 | 15.0 | ug/L | 32 | Standard |
| | Kr | 83 | 101.0 | 11.4 | | | | ug/L | 24 | Standard |
| | Y | 89 | 341211.8 | 2.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 206665.1 | 1.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 432489.0 | 0.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 517633.3 | 0.4 | **171.2841** | 1.355 | 0.8 | ug/L | 119 | Standard |
| | Ba | 137 | 876181.0 | 0.4 | **175.2205** | 0.845 | 0.5 | ug/L | 143 | Standard |
| > | Tb | 159 | 507224.3 | 0.8 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 502062.7 | 0.4 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 397876.3 | 0.9 | **9.0364** | 0.024 | 0.3 | ug/L | 1070 | Standard |
| | Bi | 209 | 319840.9 | 0.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 660556.0 | 0.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6425.8 | 1.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 5730.1 | 1.6 | **145.6093** | 3.764 | 2.6 | ug/L | 2 | KED |
| | Y-1 | 89 | 15292.2 | 0.4 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 69976.0 | 0.4 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7465.8 | 0.3 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 94.200 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 87.074 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.667 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 89.648 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-07 10X

Sample Date/Time: Monday, October 28, 2019 14:16:31
Report Date/Time: Monday, October 28, 2019 14:18:11
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 155754.6 | 2.9 | | | | ug/L | 164393 | Standard |
| | As | 75 | 53717.8 | 1.3 | **94.9784** | 2.020 | 2.1 | ug/L | 1251 | Standard |
| | As-1 | 75 | 52783.8 | 1.3 | **81.5253** | 1.734 | 2.1 | ug/L | 44 | Standard |
| | Se | 77 | 40.7 | 3.8 | **0.5736** | 0.064 | 11.1 | ug/L | 18 | Standard |
| | Se | 78 | 1211.4 | 3.9 | **-1.2543** | 0.153 | 12.2 | ug/L | 1454 | Standard |
| | Br | 79 | 587.0 | 4.4 | | | | ug/L | 63 | Standard |
| | Se | 82 | 56.3 | 18.2 | **0.3513** | 0.136 | 38.8 | ug/L | 32 | Standard |
| | Kr | 83 | 114.0 | 24.1 | | | | ug/L | 24 | Standard |
| | Y | 89 | 366910.7 | 0.0 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 207172.4 | 1.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 433719.3 | 0.4 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 499592.5 | 1.0 | **166.6301** | 1.448 | 0.9 | ug/L | 119 | Standard |
| | Ba | 137 | 840547.2 | 0.2 | **169.4365** | 0.586 | 0.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 503194.9 | 0.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 502430.7 | 0.3 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 422383.3 | 0.8 | **9.6713** | 0.036 | 0.4 | ug/L | 1070 | Standard |
| | Bi | 209 | 323167.2 | 0.8 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 687951.0 | 1.8 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6428.8 | 1.5 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 3893.9 | 1.9 | **98.8727** | 1.818 | 1.8 | ug/L | 2 | KED |
| | Y-1 | 89 | 16179.8 | 1.2 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 70820.5 | 1.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7486.4 | 1.0 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 94.745 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 87.288 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 91.931 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | 89.690 |
| 72Ge-1 | |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, October 28, 2019 14:20:32
Report Date/Time: Monday, October 28, 2019 14:22:12
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157232.7 | 1.4 | | | | ug/L | 164393 | Standard |
| | As | 75 | 22520.8 | 1.5 | **38.1789** | 0.442 | 1.2 | ug/L | 1251 | Standard |
| | As-1 | 75 | 26619.4 | 1.7 | **40.6802** | 0.436 | 1.1 | ug/L | 44 | Standard |
| | Se | 77 | 1593.4 | 5.5 | **38.3392** | 1.581 | 4.1 | ug/L | 18 | Standard |
| | Se | 78 | 6702.6 | 2.6 | **39.7281** | 0.785 | 2.0 | ug/L | 1454 | Standard |
| | Br | 79 | 92.7 | 21.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 4166.9 | 3.0 | **43.0227** | 0.397 | 0.9 | ug/L | 32 | Standard |
| | Kr | 83 | 11.3 | 41.7 | | | | ug/L | 24 | Standard |
| | Y | 89 | 295277.5 | 2.4 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 242712.6 | 3.7 | | | | ug/L | 237344 | Standard |
| | In | 115 | 449956.1 | 1.5 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 101551.0 | 0.9 | **38.0727** | 0.733 | 1.9 | ug/L | 119 | Standard |
| | Ba | 137 | 168704.0 | 1.1 | **38.2285** | 0.176 | 0.5 | ug/L | 143 | Standard |
| > | Tb | 159 | 447387.3 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 463536.4 | 1.0 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1489091.5 | 2.5 | **38.4259** | 1.354 | 3.5 | ug/L | 1070 | Standard |
| | Bi | 209 | 332028.7 | 0.9 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 472256.5 | 1.3 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6750.3 | 0.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1578.8 | 1.0 | **38.1429** | 0.286 | 0.8 | ug/L | 2 | KED |
| | Y-1 | 89 | 11863.9 | 1.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 76993.6 | 1.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7930.1 | 1.2 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 95.644 |
| | 75As | 95.447 | |
| | 75As-1 | 101.700 | |
| | 77Se | 95.848 | |
| | 78Se | 99.320 | |
| | 79Br | | |
| | 82Se | 107.557 | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 102.262 |
| | 115In | | |
| | 135Ba | 95.182 | |
| | 137Ba | 95.571 | |
| > | 159Tb | | 81.735 |
| | 165Ho | | |
| | 208Pb | 96.065 | |
| | 209Bi | | |

| | | |
|---|---|---|
| 232Th | | 94.175 |
| 72Ge-1 | | |
| 75As-2 | 95.357 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Monday, October 28, 2019 14:24:34
Report Date/Time: Monday, October 28, 2019 14:26:14
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 174224.0 | 0.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1165.2 | 3.8 | -0.2595 | 0.071 | 27.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 1.4 | 922.1 | -0.0622 | 0.018 | 29.0 | ug/L | 44 | Standard |
| | Se | 77 | 17.7 | 40.2 | -0.0385 | 0.157 | 407.0 | ug/L | 18 | Standard |
| | Se | 78 | 1353.7 | 3.6 | -1.2617 | 0.334 | 26.5 | ug/L | 1454 | Standard |
| | Br | 79 | 87.0 | 6.1 | | | | ug/L | 63 | Standard |
| | Se | 82 | 13.0 | 53.8 | -0.2183 | 0.059 | 26.9 | ug/L | 32 | Standard |
| | Kr | 83 | 10.3 | 22.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 330357.4 | 4.2 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 271547.2 | 5.8 | | | | ug/L | 237344 | Standard |
| | In | 115 | 483987.6 | 1.1 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 105.0 | 14.3 | -0.0000 | 0.005 | 17084.9 | ug/L | 119 | Standard |
| | Ba | 137 | 139.7 | 5.0 | 0.0027 | 0.001 | 41.7 | ug/L | 143 | Standard |
| > | Tb | 159 | 483659.8 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 498962.2 | 0.3 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1022.7 | 3.2 | 0.0018 | 0.001 | 37.7 | ug/L | 1070 | Standard |
| | Bi | 209 | 363222.7 | 0.5 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 511774.7 | 0.8 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 7271.9 | 2.0 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1.0 | 100.0 | -0.0307 | 0.023 | 74.3 | ug/L | 2 | KED |
| | Y-1 | 89 | 12978.9 | 0.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 83140.9 | 1.1 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8461.2 | 1.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 105.980 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 114.411 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.362 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | 101.452 |
| 72Ge-1 | |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-08 10X**
Sample Date/Time: Monday, October 28, 2019 14:28:57
Report Date/Time: Monday, October 28, 2019 14:30:36
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ug/L | 164393 | Standard |
| > | Ge | 72 | 151591.2 | 1.4 | | | | ug/L | 1251 | Standard |
| | As | 75 | 48352.7 | 1.2 | **87.6488** | 0.298 | 0.3 | ug/L | 44 | Standard |
| | As-1 | 75 | 47407.3 | 1.2 | **75.2012** | 0.295 | 0.4 | ug/L | 18 | Standard |
| | Se | 77 | 53.7 | 3.9 | **0.9282** | 0.058 | 6.2 | ug/L | 1454 | Standard |
| | Se | 78 | 1276.1 | 4.1 | **-0.5002** | 0.374 | 74.8 | ug/L | 63 | Standard |
| | Br | 79 | 509.7 | 1.8 | | | | ug/L | 32 | Standard |
| | Se | 82 | 75.3 | 10.6 | **0.5738** | 0.121 | 21.1 | ug/L | 24 | Standard |
| | Kr | 83 | 71.7 | 15.0 | | | | ug/L | 282734 | Standard |
| | Y | 89 | 447392.3 | 2.9 | | | | ug/L | 237344 | Standard |
| > | Rh | 103 | 209430.7 | 3.2 | | | | ug/L | 527616 | Standard |
| | In | 115 | 425160.1 | 1.2 | | | | ug/L | 119 | Standard |
| | Ba | 135 | 577610.9 | 1.0 | **192.3442** | 2.057 | 1.1 | ug/L | 143 | Standard |
| | Ba | 137 | 976730.8 | 1.5 | **196.5665** | 2.758 | 1.4 | ug/L | 547361 | Standard |
| > | Tb | 159 | 504031.3 | 0.9 | | | | ug/L | 562657 | Standard |
| | Ho | 165 | 502479.6 | 1.3 | | | | ug/L | 1070 | Standard |
| | Pb | 208 | 437649.4 | 1.7 | **10.0046** | 0.090 | 0.9 | ug/L | 387215 | Standard |
| | Bi | 209 | 316190.3 | 1.4 | | | | ug/L | 527441 | Standard |
| | Th | 232 | 600145.7 | 0.5 | | | | ug/L | 7168 | KED |
| > | Ge-1 | 72 | 6360.1 | 0.7 | | | | ug/L | 2 | KED |
| | As-2 | 75 | 3605.5 | 1.7 | **92.5286** | 1.430 | 1.5 | ug/L | 11972 | KED |
| | Y-1 | 89 | 19066.7 | 1.7 | | | | ug/L | 86094 | KED |
| | Rh-1 | 103 | 69982.4 | 1.6 | | | | ug/L | 7437 | KED |
| | In-1 | 115 | 7445.2 | 0.9 | | | | | | |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | 92.212 |
| > | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 88.239 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 92.084 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 88.731 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-09 10X

Sample Date/Time: Monday, October 28, 2019 14:32:58
Report Date/Time: Monday, October 28, 2019 14:34:38
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ug/L | 164393 | Standard |
| > | Ge | 72 | 153729.1 | 1.3 | | | | | | |
| | As | 75 | 52629.9 | 0.5 | **94.2365** | 0.807 | 0.9 | ug/L | 1251 | Standard |
| | As-1 | 75 | 51738.2 | 0.4 | **80.9382** | 0.706 | 0.9 | ug/L | 44 | Standard |
| | Se | 77 | 69.3 | 5.8 | **1.2984** | 0.079 | 6.1 | ug/L | 18 | Standard |
| | Se | 78 | 1354.1 | 2.9 | **-0.0405** | 0.299 | 737.9 | ug/L | 1454 | Standard |
| | Br | 79 | 575.0 | 1.3 | | | | ug/L | 63 | Standard |
| | Se | 82 | 126.3 | 13.1 | **1.1834** | 0.130 | 11.0 | ug/L | 32 | Standard |
| | Kr | 83 | 64.0 | 3.1 | | | | ug/L | 24 | Standard |
| | Y | 89 | 370871.6 | 3.5 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 209340.0 | 5.1 | | | | ug/L | 237344 | Standard |
| | In | 115 | 424034.3 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 389814.7 | 1.3 | **134.3747** | 0.683 | 0.5 | ug/L | 119 | Standard |
| | Ba | 137 | 655429.1 | 0.7 | **136.5642** | 1.979 | 1.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 486859.9 | 1.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 489217.2 | 1.0 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 731823.0 | 1.2 | **17.3373** | 0.070 | 0.4 | ug/L | 1070 | Standard |
| | Bi | 209 | 320402.9 | 1.4 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 602584.3 | 0.1 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6563.2 | 1.5 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 3891.5 | 2.1 | **96.7768** | 0.617 | 0.6 | ug/L | 2 | KED |
| | Y-1 | 89 | 16210.2 | 0.8 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 71473.0 | 1.0 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7576.7 | 1.8 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 93.513 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 88.201 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | 88.947 |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 91.565 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-10 10X**
Sample Date/Time: Monday, October 28, 2019 14:36:59
Report Date/Time: Monday, October 28, 2019 14:38:38
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ug/L | 164393 | Standard |
| > | Ge | 72 | 152898.9 | 1.1 | | | | ug/L | 1251 | Standard |
| | As | 75 | 44997.8 | 1.4 | **80.6999** | 0.314 | 0.4 | ug/L | 44 | Standard |
| | As-1 | 75 | 44140.0 | 1.5 | **69.4104** | 0.331 | 0.5 | ug/L | 18 | Standard |
| | Se | 77 | 67.7 | 10.7 | **1.2667** | 0.178 | 14.1 | ug/L | 1454 | Standard |
| | Se | 78 | 1305.7 | 1.5 | **-0.3548** | 0.255 | 71.8 | ug/L | 63 | Standard |
| | Br | 79 | 788.7 | 3.1 | | | | ug/L | 32 | Standard |
| | Se | 82 | 122.7 | 5.4 | **1.1690** | 0.163 | 14.0 | ug/L | 24 | Standard |
| | Kr | 83 | 110.7 | 11.4 | | | | ug/L | 282734 | Standard |
| | Y | 89 | 418394.2 | 2.9 | | | | ug/L | 237344 | Standard |
| > | Rh | 103 | 206567.9 | 6.0 | | | | ug/L | 527616 | Standard |
| | In | 115 | 419943.7 | 0.8 | | | | ug/L | 119 | Standard |
| | Ba | 135 | 716487.7 | 1.0 | **248.3407** | 1.368 | 0.6 | ug/L | 143 | Standard |
| | Ba | 137 | 1194969.1 | 0.3 | **250.3232** | 1.078 | 0.4 | ug/L | 547361 | Standard |
| > | Tb | 159 | 484239.8 | 0.5 | | | | ug/L | 562657 | Standard |
| | Ho | 165 | 490977.5 | 0.8 | | | | ug/L | 1070 | Standard |
| | Pb | 208 | 534034.3 | 1.1 | **12.7135** | 0.089 | 0.7 | ug/L | 387215 | Standard |
| | Bi | 209 | 316477.6 | 0.9 | | | | ug/L | 527441 | Standard |
| | Th | 232 | 642681.4 | 0.0 | | | | ug/L | 7168 | KED |
| > | Ge-1 | 72 | 6359.1 | 1.0 | | | | ug/L | 2 | KED |
| | As-2 | 75 | 3423.1 | 1.3 | **87.8590** | 0.536 | 0.6 | ug/L | 11972 | KED |
| | Y-1 | 89 | 18368.8 | 1.8 | | | | ug/L | 86094 | KED |
| | Rh-1 | 103 | 70112.3 | 0.9 | | | | ug/L | 7437 | KED |
| | In-1 | 115 | 7371.0 | 3.2 | | | | | | |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | 93.008 |
| > | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | 87.033 |
| > | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | 88.468 |
| | 159 | Tb | | |
| > | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 88.717 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-11 10X**

Sample Date/Time: Monday, October 28, 2019 14:40:59
Report Date/Time: Monday, October 28, 2019 14:42:39
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150172.6 | 1.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 82182.5 | 1.5 | **151.9046** | 0.468 | 0.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 81257.3 | 1.5 | **130.1549** | 0.343 | 0.3 | ug/L | 44 | Standard |
| | Se | 77 | 59.3 | 13.7 | **1.0843** | 0.198 | 18.2 | ug/L | 18 | Standard |
| | Se | 78 | 1267.7 | 5.9 | **-0.4757** | 0.467 | 98.1 | ug/L | 1454 | Standard |
| | Br | 79 | 721.0 | 10.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 80.7 | 9.4 | **0.6579** | 0.082 | 12.4 | ug/L | 32 | Standard |
| | Kr | 83 | 82.3 | 6.7 | | | | ug/L | 24 | Standard |
| | Y | 89 | 353128.4 | 3.9 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 204721.0 | 4.5 | | | | ug/L | 237344 | Standard |
| | In | 115 | 421582.1 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 505839.0 | 1.2 | **172.8230** | 0.791 | 0.5 | ug/L | 119 | Standard |
| | Ba | 137 | 846281.5 | 1.4 | **174.7421** | 0.450 | 0.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 491240.9 | 1.3 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 490836.5 | 1.1 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 397408.9 | 1.1 | **9.3204** | 0.020 | 0.2 | ug/L | 1070 | Standard |
| | Bi | 209 | 316135.2 | 0.9 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 631672.6 | 0.6 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6395.4 | 1.5 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 6197.0 | 1.9 | **158.2478** | 5.279 | 3.3 | ug/L | 2 | KED |
| | Y-1 | 89 | 15541.5 | 2.6 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 70447.9 | 0.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7543.3 | 0.8 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 91.350 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 86.255 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 89.747 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

89.224

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-12 10X**
Sample Date/Time: Monday, October 28, 2019 14:45:00
Report Date/Time: Monday, October 28, 2019 14:46:40
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Ge | 72 | 150717.7 | 1.8 | | | | ug/L | 164393 | Standard |
| \| | As | 75 | 22560.4 | 1.3 | **39.9972** | 0.313 | 0.8 | ug/L | 1251 | Standard |
| \| | As-1 | 75 | 21640.9 | 1.3 | **34.4944** | 0.270 | 0.8 | ug/L | 44 | Standard |
| \| | Se | 77 | 61.0 | 8.2 | **1.1208** | 0.099 | 8.8 | ug/L | 18 | Standard |
| ⌊ | Se | 78 | 1283.1 | 4.2 | **-0.3902** | 0.281 | 72.0 | ug/L | 1454 | Standard |
| | Br | 79 | 733.7 | 5.3 | | | | ug/L | 63 | Standard |
| ⌈ | Se | 82 | 88.7 | 9.4 | **0.7670** | 0.056 | 7.4 | ug/L | 32 | Standard |
| \| | Kr | 83 | 111.7 | 17.1 | | | | ug/L | 24 | Standard |
| \| | Y | 89 | 428016.6 | 4.2 | | | | ug/L | 282734 | Standard |
| ⌊> | Rh | 103 | 202656.6 | 5.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 421271.5 | 2.0 | | | | ug/L | 527616 | Standard |
| ⌈ | Ba | 135 | 713168.3 | 1.2 | **245.2947** | 2.133 | 0.9 | ug/L | 119 | Standard |
| \| | Ba | 137 | 1194149.9 | 1.4 | **248.2178** | 1.402 | 0.6 | ug/L | 143 | Standard |
| \|> | Tb | 159 | 488025.0 | 1.7 | | | | ug/L | 547361 | Standard |
| \| | Ho | 165 | 494473.0 | 0.7 | | | | ug/L | 562657 | Standard |
| \| | Pb | 208 | 458936.7 | 1.7 | **10.8378** | 0.036 | 0.3 | ug/L | 1070 | Standard |
| \| | Bi | 209 | 311486.3 | 0.7 | | | | ug/L | 387215 | Standard |
| ⌊ | Th | 232 | 632672.3 | 1.7 | | | | ug/L | 527441 | Standard |
| ⌈> | Ge-1 | 72 | 6482.8 | 1.9 | | | | ug/L | 7168 | KED |
| ⌊ | As-2 | 75 | 1656.8 | 3.6 | **41.6875** | 1.407 | 3.4 | ug/L | 2 | KED |
| | Y-1 | 89 | 19174.9 | 2.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 70080.8 | 0.5 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7550.1 | 2.8 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| ⌈> | 72 | Ge | | 91.681 |
| \| | 75 | As | | |
| \| | 75 | As-1 | | |
| \| | 77 | Se | | |
| ⌊ | 78 | Se | | |
| | 79 | Br | | |
| ⌈ | 82 | Se | | |
| \| | 83 | Kr | | |
| \| | 89 | Y | | |
| ⌊> | 103 | Rh | | 85.385 |
| | 115 | In | | |
| ⌈ | 135 | Ba | | |
| \| | 137 | Ba | | |
| \|> | 159 | Tb | | 89.160 |
| \| | 165 | Ho | | |
| \| | 208 | Pb | | |
| \| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 90.443 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-01 25X**

Sample Date/Time: Monday, October 28, 2019 14:49:01
Report Date/Time: Monday, October 28, 2019 14:50:40
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 162054.6 | 2.1 | | | | ug/L | 164393 | Standard |
| | As | 75 | 24703.5 | 1.1 | **40.7764** | 0.574 | 1.4 | ug/L | 1251 | Standard |
| | As-1 | 75 | 23611.4 | 1.2 | **35.0062** | 0.468 | 1.3 | ug/L | 44 | Standard |
| | Se | 77 | 28.0 | 3.6 | **0.2344** | 0.018 | 7.7 | ug/L | 18 | Standard |
| | Se | 78 | 1366.1 | 2.8 | **-0.4836** | 0.330 | 68.3 | ug/L | 1454 | Standard |
| | Br | 79 | 193.0 | 2.7 | | | | ug/L | 63 | Standard |
| | Se | 82 | 47.3 | 12.4 | **0.1628** | 0.052 | 32.0 | ug/L | 32 | Standard |
| | Kr | 83 | 42.7 | 12.9 | | | | ug/L | 24 | Standard |
| | Y | 89 | 336386.3 | 1.1 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 238911.3 | 3.0 | | | | ug/L | 237344 | Standard |
| | In | 115 | 451216.3 | 1.1 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 21754.6 | 0.2 | **7.3718** | 0.039 | 0.5 | ug/L | 119 | Standard |
| | Ba | 137 | 36290.7 | 0.8 | **7.4422** | 0.097 | 1.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 492957.1 | 0.6 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 491834.4 | 1.2 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 176682.7 | 0.3 | **4.1167** | 0.032 | 0.8 | ug/L | 1070 | Standard |
| | Bi | 209 | 327816.6 | 0.5 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 505741.6 | 1.2 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6865.3 | 1.4 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1769.8 | 2.7 | **42.0622** | 1.677 | 4.0 | ug/L | 2 | KED |
| | Y-1 | 89 | 14235.4 | 0.6 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 76306.0 | 1.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8169.5 | 1.3 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 98.577 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 100.660 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 90.061 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 95.780 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-03 25X**

Sample Date/Time: Monday, October 28, 2019 14:53:02
Report Date/Time: Monday, October 28, 2019 14:54:41
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 159694.8 | 1.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 15203.4 | 1.3 | **24.6582** | 0.085 | 0.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 14162.8 | 1.4 | **21.2802** | 0.058 | 0.3 | ug/L | 44 | Standard |
| | Se | 77 | 36.0 | 10.0 | **0.4352** | 0.074 | 16.9 | ug/L | 18 | Standard |
| | Se | 78 | 1359.4 | 1.7 | **-0.3887** | 0.053 | 13.5 | ug/L | 1454 | Standard |
| | Br | 79 | 288.3 | 6.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 66.3 | 10.6 | **0.3310** | 0.043 | 12.9 | ug/L | 32 | Standard |
| | Kr | 83 | 42.3 | 1.4 | | | | ug/L | 24 | Standard |
| | Y | 89 | 427622.5 | 1.8 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 250374.2 | 4.7 | | | | ug/L | 237344 | Standard |
| | In | 115 | 456170.3 | 1.6 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 216051.9 | 1.1 | **73.1391** | 0.822 | 1.1 | ug/L | 119 | Standard |
| | Ba | 137 | 360272.3 | 0.2 | **73.7151** | 0.278 | 0.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 495641.2 | 0.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 495768.9 | 0.4 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 153545.2 | 0.6 | **3.5552** | 0.033 | 0.9 | ug/L | 1070 | Standard |
| | Bi | 209 | 331129.8 | 1.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 546614.9 | 0.7 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6959.4 | 1.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1078.7 | 3.8 | **25.2718** | 1.258 | 5.0 | ug/L | 2 | KED |
| | Y-1 | 89 | 17843.8 | 0.8 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 77902.8 | 0.3 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8226.5 | 1.8 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 97.142 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 105.490 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 90.551 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 97.092 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-04 25X**

Sample Date/Time: Monday, October 28, 2019 14:57:02
Report Date/Time: Monday, October 28, 2019 14:58:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 160203.5 | 4.0 | | | | ug/L | 164393 | Standard |
| | As | 75 | 5626.7 | 3.2 | **7.7500** | 0.309 | 4.0 | ug/L | 1251 | Standard |
| | As-1 | 75 | 4538.9 | 2.7 | **6.7602** | 0.273 | 4.0 | ug/L | 44 | Standard |
| | Se | 77 | 35.3 | 9.1 | **0.4174** | 0.071 | 17.0 | ug/L | 18 | Standard |
| | Se | 78 | 1364.7 | 7.0 | **-0.3870** | 0.413 | 106.8 | ug/L | 1454 | Standard |
| | Br | 79 | 404.3 | 9.2 | | | | ug/L | 63 | Standard |
| | Se | 82 | 48.7 | 17.5 | **0.1717** | 0.073 | 42.3 | ug/L | 32 | Standard |
| | Kr | 83 | 46.0 | 7.8 | | | | ug/L | 24 | Standard |
| | Y | 89 | 392980.1 | 5.2 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 241005.3 | 4.5 | | | | ug/L | 237344 | Standard |
| | In | 115 | 441568.8 | 1.1 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 204714.1 | 0.7 | **71.3323** | 0.664 | 0.9 | ug/L | 119 | Standard |
| | Ba | 137 | 342428.2 | 0.7 | **72.1201** | 0.927 | 1.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 481562.3 | 1.6 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 490498.7 | 0.7 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 122016.0 | 0.8 | **2.9040** | 0.050 | 1.7 | ug/L | 1070 | Standard |
| | Bi | 209 | 325049.0 | 1.1 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 530211.2 | 0.9 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6818.6 | 0.9 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 325.0 | 8.9 | **7.7359** | 0.762 | 9.8 | ug/L | 2 | KED |
| | Y-1 | 89 | 16087.7 | 2.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 75014.8 | 0.7 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8039.0 | 1.1 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 97.451 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 101.543 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 87.979 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 95.129 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-05 25X**
Sample Date/Time: Monday, October 28, 2019 15:01:03
Report Date/Time: Monday, October 28, 2019 15:02:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157002.1 | 1.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 12816.6 | 1.9 | **20.8373** | 0.306 | 1.5 | ug/L | 1251 | Standard |
| | As-1 | 75 | 11767.1 | 2.1 | **17.9726** | 0.237 | 1.3 | ug/L | 44 | Standard |
| | Se | 77 | 35.3 | 3.3 | **0.4344** | 0.022 | 5.2 | ug/L | 18 | Standard |
| | Se | 78 | 1355.1 | 0.6 | **-0.2489** | 0.092 | 37.1 | ug/L | 1454 | Standard |
| | Br | 79 | 473.7 | 8.5 | | | | ug/L | 63 | Standard |
| | Se | 82 | 61.0 | 25.8 | **0.3077** | 0.148 | 47.9 | ug/L | 32 | Standard |
| | Kr | 83 | 48.0 | 11.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 332422.8 | 3.0 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 238071.4 | 3.6 | | | | ug/L | 237344 | Standard |
| | In | 115 | 426545.7 | 0.9 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 126853.1 | 0.3 | **45.0940** | 0.196 | 0.4 | ug/L | 119 | Standard |
| | Ba | 137 | 211587.1 | 0.1 | **45.4652** | 0.145 | 0.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 471852.4 | 0.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 477350.6 | 0.9 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 173906.3 | 0.2 | **4.2339** | 0.020 | 0.5 | ug/L | 1070 | Standard |
| | Bi | 209 | 320445.9 | 0.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 528966.0 | 0.5 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6571.5 | 1.4 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 870.4 | 4.0 | **21.5785** | 0.851 | 3.9 | ug/L | 2 | KED |
| | Y-1 | 89 | 13608.5 | 1.2 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 74235.1 | 1.1 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8009.4 | 1.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 95.504 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 100.306 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 86.205 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 91.681 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-06 25X**

Sample Date/Time: Monday, October 28, 2019 15:05:03
Report Date/Time: Monday, October 28, 2019 15:06:43
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 167074.4 | 1.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 32442.1 | 2.0 | **52.5159** | 0.522 | 1.0 | ug/L | 1251 | Standard |
| | As-1 | 75 | 31315.4 | 2.1 | **45.0421** | 0.503 | 1.1 | ug/L | 44 | Standard |
| | Se | 77 | 39.0 | 9.2 | **0.4663** | 0.079 | 16.9 | ug/L | 18 | Standard |
| | Se | 78 | 1397.1 | 0.3 | **-0.5647** | 0.131 | 23.2 | ug/L | 1454 | Standard |
| | Br | 79 | 523.3 | 6.6 | | | | ug/L | 63 | Standard |
| | Se | 82 | 44.3 | 30.0 | **0.1190** | 0.137 | 115.2 | ug/L | 32 | Standard |
| | Kr | 83 | 44.0 | 11.4 | | | | ug/L | 24 | Standard |
| | Y | 89 | 341401.0 | 3.0 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 245619.8 | 2.1 | | | | ug/L | 237344 | Standard |
| | In | 115 | 444423.0 | 0.7 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 210607.1 | 0.8 | **73.2165** | 0.268 | 0.4 | ug/L | 119 | Standard |
| | Ba | 137 | 350272.3 | 0.7 | **73.6004** | 0.287 | 0.4 | ug/L | 143 | Standard |
| > | Tb | 159 | 482629.3 | 0.5 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 488007.8 | 0.4 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 166379.5 | 1.2 | **3.9586** | 0.032 | 0.8 | ug/L | 1070 | Standard |
| | Bi | 209 | 328998.1 | 0.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 558354.1 | 0.1 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6694.9 | 0.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2315.9 | 3.5 | **56.4333** | 1.645 | 2.9 | ug/L | 2 | KED |
| | Y-1 | 89 | 13793.3 | 2.0 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 75186.7 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8029.9 | 1.4 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 101.631 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 103.487 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 88.174 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 93.402
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, October 28, 2019 15:09:05
Report Date/Time: Monday, October 28, 2019 15:10:45
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 160756.2 | 1.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 22659.5 | 2.9 | **37.5400** | 1.233 | 3.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 26837.7 | 3.6 | **40.1154** | 1.420 | 3.5 | ug/L | 44 | Standard |
| | Se | 77 | 1619.8 | 1.4 | **38.1313** | 0.404 | 1.1 | ug/L | 18 | Standard |
| | Se | 78 | 6737.6 | 4.2 | **38.8855** | 1.810 | 4.7 | ug/L | 1454 | Standard |
| | Br | 79 | 82.7 | 15.3 | | | | ug/L | 63 | Standard |
| | Se | 82 | 4213.0 | 5.7 | **42.5197** | 1.142 | 2.7 | ug/L | 32 | Standard |
| | Kr | 83 | 14.3 | 10.7 | | | | ug/L | 24 | Standard |
| | Y | 89 | 299378.3 | 5.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 248591.1 | 8.4 | | | | ug/L | 237344 | Standard |
| | In | 115 | 439957.7 | 1.4 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 99532.9 | 0.6 | **38.0419** | 0.214 | 0.6 | ug/L | 119 | Standard |
| | Ba | 137 | 164874.3 | 0.6 | **38.0920** | 0.127 | 0.3 | ug/L | 143 | Standard |
| > | Tb | 159 | 438795.8 | 0.5 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 454432.3 | 1.4 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1486477.1 | 0.7 | **39.1017** | 0.463 | 1.2 | ug/L | 1070 | Standard |
| | Bi | 209 | 330866.7 | 1.2 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 463694.1 | 0.6 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6700.9 | 0.7 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1577.8 | 3.1 | **38.3962** | 0.947 | 2.5 | ug/L | 2 | KED |
| | Y-1 | 89 | 11997.4 | 1.0 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 77840.2 | 0.3 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8087.9 | 1.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 97.787 |
| | 75 | As | 93.850 | |
| | 75 | As-1 | 100.288 | |
| | 77 | Se | 95.328 | |
| | 78 | Se | 97.214 | |
| | 79 | Br | | |
| | 82 | Se | 106.299 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 104.739 |
| | 115 | In | | |
| | 135 | Ba | 95.105 | |
| | 137 | Ba | 95.230 | |
| > | 159 | Tb | | 80.166 |
| | 165 | Ho | | |
| | 208 | Pb | 97.754 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 93.486 |
| 75As-2 | 95.991 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, October 28, 2019 15:13:06
Report Date/Time: Monday, October 28, 2019 15:14:46
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Ge | 72 | 178736.0 | 2.5 | | | | ug/L | 164393 | Standard |
| \| | As | 75 | 1242.0 | 3.4 | -0.1852 | 0.081 | 43.5 | ug/L | 1251 | Standard |
| \| | As-1 | 75 | 5.2 | 113.0 | -0.0571 | 0.008 | 13.8 | ug/L | 44 | Standard |
| \| | Se | 77 | 22.0 | 15.7 | 0.0436 | 0.067 | 154.0 | ug/L | 18 | Standard |
| L | Se | 78 | 1443.7 | 2.6 | -0.8970 | 0.318 | 35.4 | ug/L | 1454 | Standard |
| | Br | 79 | 68.7 | 15.6 | | | | ug/L | 63 | Standard |
| [ | Se | 82 | 15.7 | 25.8 | -0.1990 | 0.030 | 15.3 | ug/L | 32 | Standard |
| \| | Kr | 83 | 13.7 | 15.2 | | | | ug/L | 24 | Standard |
| \| | Y | 89 | 339158.7 | 3.9 | | | | ug/L | 282734 | Standard |
| L> | Rh | 103 | 285712.8 | 5.5 | | | | ug/L | 237344 | Standard |
| | In | 115 | 484066.6 | 0.5 | | | | ug/L | 527616 | Standard |
| [ | Ba | 135 | 89.0 | 12.8 | -0.0055 | 0.004 | 75.8 | ug/L | 119 | Standard |
| \| | Ba | 137 | 107.3 | 7.5 | -0.0040 | 0.002 | 43.5 | ug/L | 143 | Standard |
| \|> | Tb | 159 | 481619.5 | 0.7 | | | | ug/L | 547361 | Standard |
| \| | Ho | 165 | 494981.9 | 1.9 | | | | ug/L | 562657 | Standard |
| \| | Pb | 208 | 1007.3 | 4.6 | 0.0016 | 0.001 | 60.6 | ug/L | 1070 | Standard |
| \| | Bi | 209 | 354897.3 | 0.3 | | | | ug/L | 387215 | Standard |
| L | Th | 232 | 506983.3 | 0.8 | | | | ug/L | 527441 | Standard |
| [> | Ge-1 | 72 | 7412.3 | 2.4 | | | | ug/L | 7168 | KED |
| L | As-2 | 75 | 1.3 | 86.6 | -0.0242 | 0.025 | 103.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 13491.7 | 0.6 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 85281.8 | 0.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8835.9 | 2.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| [> | 72 | Ge | | 108.725 |
| \| | 75 | As | | |
| \| | 75 | As-1 | | |
| \| | 77 | Se | | |
| L | 78 | Se | | |
| | 79 | Br | | |
| [ | 82 | Se | | |
| \| | 83 | Kr | | |
| \| | 89 | Y | | |
| L> | 103 | Rh | | 120.379 |
| | 115 | In | | |
| [ | 135 | Ba | | |
| \| | 137 | Ba | | |
| \|> | 159 | Tb | | 87.989 |
| \| | 165 | Ho | | |
| \| | 208 | Pb | | |
| \| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 103.411 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-07 25X**

Sample Date/Time: Monday, October 28, 2019 15:19:05
Report Date/Time: Monday, October 28, 2019 15:20:45
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163569.1 | 0.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 22853.6 | 1.7 | **37.1888** | 0.645 | 1.7 | ug/L | 1251 | Standard |
| | As-1 | 75 | 21743.5 | 1.8 | **31.9284** | 0.578 | 1.8 | ug/L | 44 | Standard |
| | Se | 77 | 27.7 | 5.5 | **0.2205** | 0.036 | 16.4 | ug/L | 18 | Standard |
| | Se | 78 | 1373.7 | 3.0 | **-0.5239** | 0.218 | 41.6 | ug/L | 1454 | Standard |
| | Br | 79 | 283.3 | 4.8 | | | | ug/L | 63 | Standard |
| | Se | 82 | 42.7 | 10.6 | **0.0899** | 0.060 | 66.4 | ug/L | 32 | Standard |
| | Kr | 83 | 46.3 | 10.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 355986.9 | 1.1 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 253292.9 | 4.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 434734.7 | 0.9 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 203371.7 | 0.3 | **72.2604** | 0.353 | 0.5 | ug/L | 119 | Standard |
| | Ba | 137 | 338695.8 | 0.9 | **72.7365** | 0.610 | 0.8 | ug/L | 143 | Standard |
| > | Tb | 159 | 472220.9 | 0.2 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 479776.2 | 0.9 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 176047.1 | 0.0 | **4.2829** | 0.012 | 0.3 | ug/L | 1070 | Standard |
| | Bi | 209 | 324321.6 | 1.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 558782.8 | 0.8 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6687.2 | 3.1 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1600.8 | 1.6 | **39.0600** | 1.093 | 2.8 | ug/L | 2 | KED |
| | Y-1 | 89 | 14142.3 | 1.5 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 75009.7 | 0.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 7968.3 | 1.9 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 99.499 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 106.720 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 86.272 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 93.295
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-08 25X**

Sample Date/Time: Monday, October 28, 2019 15:23:07
Report Date/Time: Monday, October 28, 2019 15:24:46
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157816.6 | 0.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 20167.7 | 2.3 | **33.8292** | 0.638 | 1.9 | ug/L | 1251 | Standard |
| | As-1 | 75 | 19045.1 | 2.4 | **28.9773** | 0.521 | 1.8 | ug/L | 44 | Standard |
| | Se | 77 | 33.7 | 13.4 | **0.3898** | 0.111 | 28.5 | ug/L | 18 | Standard |
| | Se | 78 | 1395.1 | 2.4 | **-0.0029** | 0.294 | 10105.5 | ug/L | 1454 | Standard |
| | Br | 79 | 286.3 | 9.0 | | | | ug/L | 63 | Standard |
| | Se | 82 | 45.3 | 3.4 | **0.1381** | 0.021 | 15.4 | ug/L | 32 | Standard |
| | Kr | 83 | 28.7 | 17.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 371702.5 | 1.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 241142.8 | 3.1 | | | | ug/L | 237344 | Standard |
| | In | 115 | 433416.0 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 227417.6 | 0.7 | **80.1417** | 1.340 | 1.7 | ug/L | 119 | Standard |
| | Ba | 137 | 382863.5 | 0.8 | **81.5426** | 0.916 | 1.1 | ug/L | 143 | Standard |
| > | Tb | 159 | 476196.4 | 1.0 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 478568.7 | 1.2 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 176441.2 | 1.4 | **4.2566** | 0.061 | 1.4 | ug/L | 1070 | Standard |
| | Bi | 209 | 323656.0 | 0.3 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 520637.3 | 0.5 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6572.2 | 0.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1410.7 | 3.6 | **35.0035** | 1.250 | 3.6 | ug/L | 2 | KED |
| | Y-1 | 89 | 15436.7 | 1.9 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 74820.1 | 0.7 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8094.5 | 1.3 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 95.999 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 101.601 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 86.999 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 91.690 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-09 25X**

Sample Date/Time: Monday, October 28, 2019 15:27:08
Report Date/Time: Monday, October 28, 2019 15:28:47
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163995.1 | 1.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 22645.4 | 0.3 | **36.7342** | 0.532 | 1.4 | ug/L | 1251 | Standard |
| | As-1 | 75 | 21572.7 | 0.4 | **31.5979** | 0.378 | 1.2 | ug/L | 44 | Standard |
| | Se | 77 | 41.7 | 22.8 | **0.5475** | 0.235 | 43.0 | ug/L | 18 | Standard |
| | Se | 78 | 1415.7 | 2.9 | **-0.2448** | 0.364 | 148.8 | ug/L | 1454 | Standard |
| | Br | 79 | 308.0 | 4.4 | | | | ug/L | 63 | Standard |
| | Se | 82 | 73.7 | 13.9 | **0.4298** | 0.104 | 24.3 | ug/L | 32 | Standard |
| | Kr | 83 | 35.3 | 9.1 | | | | ug/L | 24 | Standard |
| | Y | 89 | 352459.2 | 3.7 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 242839.9 | 6.3 | | | | ug/L | 237344 | Standard |
| | In | 115 | 438832.8 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 162728.3 | 1.3 | **58.3408** | 0.466 | 0.8 | ug/L | 119 | Standard |
| | Ba | 137 | 272022.8 | 0.6 | **58.9545** | 0.983 | 1.7 | ug/L | 143 | Standard |
| > | Tb | 159 | 467942.4 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 476787.6 | 1.0 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 311878.3 | 0.6 | **7.6753** | 0.118 | 1.5 | ug/L | 1070 | Standard |
| | Bi | 209 | 326570.9 | 0.6 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 526712.7 | 0.6 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6766.3 | 0.5 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1552.8 | 3.5 | **37.4272** | 1.397 | 3.7 | ug/L | 2 | KED |
| | Y-1 | 89 | 14246.8 | 2.6 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 75132.4 | 0.6 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8192.2 | 2.7 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 99.758 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 102.316 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 85.491 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 94.398
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-10 50X**
Sample Date/Time: Monday, October 28, 2019 15:31:09
Report Date/Time: Monday, October 28, 2019 15:32:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163008.7 | 2.1 | | | | ug/L | 164393 | Standard |
| | As | 75 | 9943.2 | 1.0 | **15.0315** | 0.233 | 1.6 | ug/L | 1251 | Standard |
| | As-1 | 75 | 8818.4 | 1.2 | **12.9571** | 0.165 | 1.3 | ug/L | 44 | Standard |
| | Se | 77 | 25.0 | 18.3 | **0.1617** | 0.120 | 74.0 | ug/L | 18 | Standard |
| | Se | 78 | 1380.4 | 0.9 | **-0.4390** | 0.144 | 32.7 | ug/L | 1454 | Standard |
| | Br | 79 | 237.0 | 10.1 | | | | ug/L | 63 | Standard |
| | Se | 82 | 39.0 | 15.6 | **0.0540** | 0.054 | 100.7 | ug/L | 32 | Standard |
| | Kr | 83 | 30.3 | 7.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 343669.9 | 2.9 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 251577.0 | 1.7 | | | | ug/L | 237344 | Standard |
| | In | 115 | 442781.6 | 1.0 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 138569.8 | 0.7 | **51.4897** | 0.844 | 1.6 | ug/L | 119 | Standard |
| | Ba | 137 | 228785.5 | 0.5 | **51.3849** | 0.775 | 1.5 | ug/L | 143 | Standard |
| > | Tb | 159 | 451509.9 | 1.3 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 467357.4 | 1.1 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 106366.6 | 0.9 | **2.6986** | 0.058 | 2.2 | ug/L | 1070 | Standard |
| | Bi | 209 | 328527.3 | 0.2 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 508046.1 | 0.3 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6799.3 | 1.2 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 635.0 | 3.9 | **15.2051** | 0.760 | 5.0 | ug/L | 2 | KED |
| | Y-1 | 89 | 13790.0 | 1.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 76645.7 | 1.2 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8323.9 | 1.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 99.158 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 105.997 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 82.488 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 94.859 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-11 25X**

Sample Date/Time: Monday, October 28, 2019 15:35:10
Report Date/Time: Monday, October 28, 2019 15:36:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 164130.9 | 1.3 | | | | ug/L | 164393 | Standard |
| | As | 75 | 35453.5 | 2.4 | **58.6586** | 0.774 | 1.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 34339.4 | 2.4 | **50.2836** | 0.628 | 1.2 | ug/L | 44 | Standard |
| | Se | 77 | 30.7 | 9.4 | **0.2882** | 0.066 | 22.8 | ug/L | 18 | Standard |
| | Se | 78 | 1390.1 | 2.5 | **-0.4397** | 0.198 | 45.1 | ug/L | 1454 | Standard |
| | Br | 79 | 396.7 | 3.9 | | | | ug/L | 63 | Standard |
| | Se | 82 | 47.0 | 13.3 | **0.1404** | 0.074 | 52.5 | ug/L | 32 | Standard |
| | Kr | 83 | 46.7 | 15.2 | | | | ug/L | 24 | Standard |
| | Y | 89 | 354211.8 | 6.5 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 249384.9 | 5.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 446256.4 | 2.1 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 210428.8 | 0.5 | **73.8734** | 0.258 | 0.3 | ug/L | 119 | Standard |
| | Ba | 137 | 352979.3 | 1.2 | **74.8970** | 0.760 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 477942.6 | 0.5 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 491083.1 | 1.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 169783.1 | 1.3 | **4.0799** | 0.035 | 0.9 | ug/L | 1070 | Standard |
| | Bi | 209 | 326666.6 | 1.1 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 546872.6 | 0.4 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6805.6 | 2.5 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2570.2 | 2.4 | **61.6460** | 1.899 | 3.1 | ug/L | 2 | KED |
| | Y-1 | 89 | 14431.6 | 1.1 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 76430.2 | 0.3 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8343.2 | 1.4 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 99.840 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| > | 103 | Rh | | 105.073 |
| | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 87.318 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 94.947 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-12 50X**

Sample Date/Time: Monday, October 28, 2019 15:39:10
Report Date/Time: Monday, October 28, 2019 15:40:50
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191028A.sam
Method File: C:\NexION Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 162023.9 | 3.2 | | | | ug/L | 164393 | Standard |
| | As | 75 | 5802.2 | 0.6 | **7.9445** | 0.275 | 3.5 | ug/L | 1251 | Standard |
| | As-1 | 75 | 4644.8 | 0.7 | **6.8406** | 0.255 | 3.7 | ug/L | 44 | Standard |
| | Se | 77 | 21.0 | 8.2 | **0.0695** | 0.042 | 61.1 | ug/L | 18 | Standard |
| | Se | 78 | 1419.1 | 2.8 | **-0.0985** | 0.048 | 48.7 | ug/L | 1454 | Standard |
| | Br | 79 | 238.7 | 4.5 | | | | ug/L | 63 | Standard |
| | Se | 82 | 39.7 | 19.6 | **0.0758** | 0.109 | 144.1 | ug/L | 32 | Standard |
| | Kr | 83 | 32.3 | 14.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 343048.5 | 5.6 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 246186.7 | 8.0 | | | | ug/L | 237344 | Standard |
| | In | 115 | 439473.9 | 1.8 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 149545.3 | 0.6 | **54.6602** | 0.153 | 0.3 | ug/L | 119 | Standard |
| | Ba | 137 | 251264.5 | 0.6 | **55.5137** | 0.554 | 1.0 | ug/L | 143 | Standard |
| > | Tb | 159 | 458970.2 | 0.6 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 474171.4 | 0.6 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 101012.2 | 1.0 | **2.5191** | 0.024 | 1.0 | ug/L | 1070 | Standard |
| | Bi | 209 | 323885.2 | 0.7 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 506561.5 | 0.9 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 6867.3 | 1.3 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 343.7 | 2.1 | **8.1216** | 0.248 | 3.1 | ug/L | 2 | KED |
| | Y-1 | 89 | 14285.1 | 2.0 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 77258.0 | 0.5 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8349.6 | 2.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 98.559 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 103.726 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 83.851 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 95.808 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, October 28, 2019 15:43:11
Report Date/Time: Monday, October 28, 2019 15:44:51
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 162882.8 | 1.6 | | | | ug/L | 164393 | Standard |
| | As | 75 | 23365.7 | 2.7 | **38.2345** | 0.498 | 1.3 | ug/L | 1251 | Standard |
| | As-1 | 75 | 27866.1 | 3.0 | **41.1062** | 0.903 | 2.2 | ug/L | 44 | Standard |
| | Se | 77 | 1644.1 | 1.3 | **38.2072** | 0.928 | 2.4 | ug/L | 18 | Standard |
| | Se | 78 | 6943.7 | 4.2 | **39.7214** | 1.413 | 3.6 | ug/L | 1454 | Standard |
| | Br | 79 | 65.3 | 10.9 | | | | ug/L | 63 | Standard |
| | Se | 82 | 4422.7 | 5.5 | **43.9962** | 1.110 | 2.5 | ug/L | 32 | Standard |
| | Kr | 83 | 18.0 | 5.6 | | | | ug/L | 24 | Standard |
| | Y | 89 | 308653.2 | 2.0 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 251804.0 | 3.6 | | | | ug/L | 237344 | Standard |
| | In | 115 | 448535.7 | 0.7 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 99396.3 | 1.0 | **37.7816** | 0.656 | 1.7 | ug/L | 119 | Standard |
| | Ba | 137 | 164958.4 | 1.6 | **37.8974** | 0.088 | 0.2 | ug/L | 143 | Standard |
| > | Tb | 159 | 441267.7 | 1.4 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 458444.1 | 2.1 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 1490283.1 | 1.0 | **38.9836** | 0.436 | 1.1 | ug/L | 1070 | Standard |
| | Bi | 209 | 329574.9 | 1.0 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 468023.4 | 0.9 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 7040.7 | 1.6 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 1675.1 | 1.0 | **38.8112** | 0.905 | 2.3 | ug/L | 2 | KED |
| | Y-1 | 89 | 12891.1 | 0.8 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 79661.2 | 1.7 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 8653.3 | 2.5 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 99.081 |
| | 75As | 95.586 | |
| | 75As-1 | 102.766 | |
| | 77Se | 95.518 | |
| | 78Se | 99.303 | |
| | 79Br | | |
| | 82Se | 109.991 | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 106.092 |
| | 115In | | |
| | 135Ba | 94.454 | |
| | 137Ba | 94.743 | |
| > | 159Tb | | 80.617 |
| | 165Ho | | |
| | 208Pb | 97.459 | |
| | 209Bi | | |

| | | | |
|---|---|---|---|
| L | 232Th | | |
| ⌈> | 72Ge-1 | | 98.227 |
| L | 75As-2 | 97.028 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Monday, October 28, 2019 15:47:13
Report Date/Time: Monday, October 28, 2019 15:48:53
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191028A.sam
Method File: C:\NexION\Data\Method\X191028A2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 181580.3 | 1.8 | | | | ug/L | 164393 | Standard |
| | As | 75 | 1244.9 | 5.4 | **-0.2130** | 0.068 | 32.1 | ug/L | 1251 | Standard |
| | As-1 | 75 | 46.3 | 52.7 | **-0.0030** | 0.031 | 1027.4 | ug/L | 44 | Standard |
| | Se | 77 | 18.3 | 30.0 | **-0.0410** | 0.114 | 277.4 | ug/L | 18 | Standard |
| | Se | 78 | 1416.7 | 4.2 | **-1.2265** | 0.221 | 18.0 | ug/L | 1454 | Standard |
| | Br | 79 | 70.0 | 11.3 | | | | ug/L | 63 | Standard |
| | Se | 82 | 21.7 | 16.2 | **-0.1486** | 0.024 | 16.4 | ug/L | 32 | Standard |
| | Kr | 83 | 15.7 | 13.3 | | | | ug/L | 24 | Standard |
| | Y | 89 | 338248.0 | 2.8 | | | | ug/L | 282734 | Standard |
| > | Rh | 103 | 289777.4 | 3.9 | | | | ug/L | 237344 | Standard |
| | In | 115 | 489209.0 | 0.3 | | | | ug/L | 527616 | Standard |
| | Ba | 135 | 101.0 | 8.5 | **-0.0012** | 0.003 | 264.8 | ug/L | 119 | Standard |
| | Ba | 137 | 129.0 | 10.5 | **0.0006** | 0.003 | 453.6 | ug/L | 143 | Standard |
| > | Tb | 159 | 481048.5 | 1.1 | | | | ug/L | 547361 | Standard |
| | Ho | 165 | 499383.4 | 1.3 | | | | ug/L | 562657 | Standard |
| | Pb | 208 | 969.7 | 3.2 | **0.0007** | 0.001 | 81.3 | ug/L | 1070 | Standard |
| | Bi | 209 | 361098.8 | 0.4 | | | | ug/L | 387215 | Standard |
| | Th | 232 | 513820.2 | 0.8 | | | | ug/L | 527441 | Standard |
| > | Ge-1 | 72 | 7723.4 | 1.8 | | | | ug/L | 7168 | KED |
| | As-2 | 75 | 2.0 | 0.0 | **-0.0109** | 0.001 | 7.0 | ug/L | 2 | KED |
| | Y-1 | 89 | 14000.5 | 1.0 | | | | ug/L | 11972 | KED |
| | Rh-1 | 103 | 86550.1 | 0.8 | | | | ug/L | 86094 | KED |
| | In-1 | 115 | 9397.8 | 1.6 | | | | ug/L | 7437 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.455 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| > | 103Rh | | 122.092 |
| | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 87.885 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 107.752
75As-2
89Y-1
103Rh-1
115In-1

# Dataset Report

10-29-19
KDM

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexIONData\DataSet\X191029A\
Report Date/Time: Tuesday, October 29, 2019 08:41:51

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| SmartTune - T | Torch Alignment | 06:06:41 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Torch Alignment.001 | |
| SmartTune - T | Torch Alignment | 06:07:28 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Torch Alignment.002 | |
| SmartTune - T | Torch Alignment | 06:09:28 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Torch Alignment.003 | |
| SmartTune - T | Torch Alignment | 06:10:44 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Torch Alignment.004 | |
| SmartTune - T | Torch Alignment | 06:11:35 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Torch Alignment.005 | |
| SmartTune - N | Nebulizer Gas Flow S | 06:12:27 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Nebulizer Gas Flow STD-KED [NEB].00 | |
| SmartTune - D | Daily Performance Ch | 06:17:54 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Daily Performance Check.007 | |
| SmartTune - D | Daily Performance Ch | 06:21:17 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Daily Performance Check.008 | |
| SmartTune - D | Daily Performance Ch | 06:24:22 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Daily Performance Check.009 | |
| SmartTune - M | Mass Calibration and R | 06:26:54 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Mass Calibration and Resolution.010 | |
| | Blank | 06:34:34 Tue 29-O | Blank | C:\NexIONData\DataSet\X191029A\Blank.011 | |
| | Sample | 06:37:16 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Sample.012 | |
| | Sample | 06:40:09 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\Sample.013 | |
| | QC Std 6 | 06:43:01 Tue 29-O | QC Std #6 | C:\NexIONData\DataSet\X191029A\QC Std 6.014 | |
| | QC Std 8 | 06:45:53 Tue 29-O | QC Std #8 | C:\NexIONData\DataSet\X191029A\QC Std 8.015 | |
| | Blank | 06:48:39 Tue 29-O | Blank | C:\NexIONData\DataSet\X191029A\Blank.016 | |
| | Standard 2 | 06:50:41 Tue 29-O | Standard #2 | C:\NexIONData\DataSet\X191029A\Standard 2.017 | |
| | Standard 5 | 06:52:44 Tue 29-O | Standard #5 | C:\NexIONData\DataSet\X191029A\Standard 5.018 | |
| | Standard 6 | 06:54:46 Tue 29-O | Standard #6 | C:\NexIONData\DataSet\X191029A\Standard 6.019 | |
| | Standard 7 | 06:56:48 Tue 29-O | Standard #7 | C:\NexIONData\DataSet\X191029A\Standard 7.020 | |
| | QC Std 1 | 06:59:40 Tue 29-O | QC Std #1 | C:\NexIONData\DataSet\X191029A\QC Std 1.021 | |
| | QC Std 2 | 07:02:33 Tue 29-O | QC Std #2 | C:\NexIONData\DataSet\X191029A\QC Std 2.022 | |
| | QC Std 4 | 07:04:35 Tue 29-O | QC Std #4 | C:\NexIONData\DataSet\X191029A\QC Std 4.023 | |
| | QC Std 6 | 07:07:28 Tue 29-O | QC Std #6 | C:\NexIONData\DataSet\X191029A\QC Std 6.024 | |
| | QC Std 8 | 07:10:20 Tue 29-O | QC Std #8 | C:\NexIONData\DataSet\X191029A\QC Std 8.025 | |
| | ICSA | 07:12:22 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\ICSA.026 | |
| | ICSAB | 07:23:18 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\ICSAB.028 | |
| | MB1028SH1 25X | 07:26:29 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\MB1028SH1 25X.029 | |
| | SB1028SH1 25X | 07:29:19 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\SB1028SH1 25X.030 | |
| | 10-363-02a 25X | 07:32:10 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02a 25X.031 | |
| | 10-363-02aD 25X | 07:35:01 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02aD 25X.032 | |
| | 10-363-02aL 125X | 07:37:53 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02aL 125X.033 | |
| | 10-363-02aMS 25X | 07:40:46 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02aMS 25X.034 | |
| | 10-363-02aMSD 25X | 07:43:38 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02aMSD 25X.035 | |
| | 10-363-02aPS 25X | 07:46:30 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02aPS 25X.036 | |
| | QC Std 6 | 07:49:23 Tue 29-O | QC Std #6 | C:\NexIONData\DataSet\X191029A\QC Std 6.037 | |
| | QC Std 8 | 07:52:15 Tue 29-O | QC Std #8 | C:\NexIONData\DataSet\X191029A\QC Std 8.038 | |
| | 10-363-02a 25X | 07:55:30 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-02a 25X.039 | |
| | 10-363-01 25X | 08:01:35 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-01 25X.040 | |
| | 10-363-03 25X | 08:04:27 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-03 25X.041 | |
| | 10-363-04 25X | 08:07:19 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-04 25X.042 | |
| | 10-363-05 25X | 08:10:10 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-05 25X.043 | |
| | 10-363-06 25X | 08:13:02 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-06 25X.044 | |
| | 10-363-07 25X | 08:15:54 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-07 25X.045 | |
| | 10-363-08 25X | 08:18:45 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-08 25X.046 | |
| | 10-363-09 25X | 08:21:35 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-09 25X.047 | |
| | 10-363-10 25X | 08:24:27 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-10 25X.048 | |
| | QC Std 6 | 08:27:20 Tue 29-O | QC Std #6 | C:\NexIONData\DataSet\X191029A\QC Std 6.049 | |
| | QC Std 8 | 08:30:12 Tue 29-O | QC Std #8 | C:\NexIONData\DataSet\X191029A\QC Std 8.050 | |
| | 10-363-11 25X | 08:32:32 Tue 29-O | Sample | C:\NexIONData\DataSet\X191029A\10-363-11 25X.051 | |

| | | |
|---|---|---|
| 10-363-12 25X | 08:35:26 Tue 29-OSample | C:\NexION Data\DataSet\X191029A\10-363-12 25X.052 |
| QC Std 6 | 08:38:19 Tue 29-OQC Std #6 | C:\NexION Data\DataSet\X191029A\QC Std 6.053 |
| QC Std 8 | 08:41:11 Tue 29-OQC Std #8 | C:\NexION Data\DataSet\X191029A\QC Std 8.054 |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ag | 106.905 | Linear Thru Zero | 0.01 | 0.00 | 0.999310 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Tuesday, October 29, 2019 06:24:22
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191029A\Daily Performance Check.009
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 5805.8 | 5805.780 | 156.594 | 2.7 | Standard |
| | Mg | 24.0 | 30322.7 | 30322.653 | 1184.498 | 3.9 | Standard |
| | In | 114.9 | 45350.4 | 45350.377 | 1222.297 | 2.7 | Standard |
| | U | 238.1 | 48282.9 | 48282.866 | 607.375 | 1.3 | Standard |
| ⌈ | CeO | 155.9 | 948.3 | 0.023 | 0.000 | 1.8 | Standard |
| \|> | Ce | 139.9 | 41697.9 | 41697.928 | 1011.142 | 2.4 | Standard |
| ⌊ | Ce++ | 70.0 | 125.2 | 0.003 | 0.000 | 8.6 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 1.00 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 1.00 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/29/2019 6:24:21 AM
End Time: 10/29/2019 6:26:41 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5805.78
Obtained Intensity (Mg 23.985): 30322.65
Obtained Intensity (In 114.904): 45350.38
Obtained Intensity (U 238.05): 48282.87
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=948.30 / 41697.93)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.003 (=125.20 / 41697.93)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/29/2019 6:24:21 AM

Daily Performance Check

Optimization Settings:

Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 5805.78
Obtained Intensity (Mg 23.985): 30322.65
Obtained Intensity (In 114.904): 45350.38
Obtained Intensity (U 238.05): 48282.87
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=948.30 / 41697.93)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.003 (=125.20 / 41697.93)

[Passed] Optimum value(s): N/A

End Time: 10/29/2019 6:26:41 AM

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/29/2019 6:26:53 AM
End Time: 10/29/2019 6:29:05 AM

Mass Calibration and Resolution - [Passed]  Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.683)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.686)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.689)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/29/2019 6:26:53 AM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\NexIONData\Method\Tuning.mth.
MassCal File: Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.683)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.686)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.689)
[Passed] Optimum value(s): N/A

End Time: 10/29/2019 6:29:05 AM

# Quantitative Analysis - Summary Report

**Sample ID: Blank**
Sample Date/Time: Tuesday, October 29, 2019 06:48:39
Report Date/Time: Tuesday, October 29, 2019 07:20:20
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 162688.0 | 1.9 | | | | ug/L | | Standard |
| | Y | 89 | 281816.3 | 2.0 | | | | ug/L | | Standard |
| > | Rh | 103 | 252009.5 | 3.5 | | | | ug/L | | Standard |
| | Ag | 107 | 297.3 | 10.7 | | | | ug/L | | Standard |
| | In | 115 | 550822.3 | 1.4 | | | | ug/L | | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Tuesday, October 29, 2019 06:50:41
Report Date/Time: Tuesday, October 29, 2019 07:20:24
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 163756.7 | 1.4 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 277539.1 | 0.6 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 247023.7 | 1.5 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 2928.0 | 2.4 | **0.8267** | 0.009 | 1.0 | ug/L | 297 | Standard |
| | In | 115 | 559137.4 | 1.0 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Tuesday, October 29, 2019 06:52:44
Report Date/Time: Tuesday, October 29, 2019 07:20:26
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 144893.1 | 2.6 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 242083.2 | 3.8 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 218522.0 | 3.0 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 120091.7 | 4.7 | **40.8523** | 1.182 | 2.9 | ug/L | 297 | Standard |
| | In | 115 | 497420.2 | 1.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 6

Sample Date/Time: Tuesday, October 29, 2019 06:54:46
Report Date/Time: Tuesday, October 29, 2019 07:20:29
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 145243.2 | 2.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 243447.2 | 0.6 | | | | ug/L | 281816 | Standard |
| [> | Rh | 103 | 221041.1 | 1.4 | | | | ug/L | 252010 | Standard |
| [ | Ag | 107 | 228513.2 | 1.7 | **67.5340** | 1.246 | 1.8 | ug/L | 297 | Standard |
| | In | 115 | 483982.8 | 0.3 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| [> | 103 | Rh | | |
| [ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**
Sample Date/Time: Tuesday, October 29, 2019 06:56:48
Report Date/Time: Tuesday, October 29, 2019 07:20:31
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 141815.9 | 1.9 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 246387.6 | 3.1 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 224842.3 | 4.3 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 630170.9 | 3.0 | **101.1364** | 1.366 | 1.4 | ug/L | 297 | Standard |
| | In | 115 | 479975.3 | 1.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**
Sample Date/Time: Tuesday, October 29, 2019 06:59:40
Report Date/Time: Tuesday, October 29, 2019 07:20:32
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 141592.3 | 1.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 251067.7 | 0.2 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 236062.2 | 1.1 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 329797.8 | 2.1 | **50.3709** | 0.548 | 1.1 | ug/L | 297 | Standard |
| | In | 115 | 473544.6 | 0.7 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 93.672 |
| | 107Ag | 100.742 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**
Sample Date/Time: Tuesday, October 29, 2019 07:02:33
Report Date/Time: Tuesday, October 29, 2019 07:20:42
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 155751.5 | 2.8 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 274162.8 | 2.0 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 250214.2 | 1.5 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 703.7 | 5.0 | 0.0589 | 0.004 | 6.2 | ug/L | 297 | Standard |
| | In | 115 | 508710.0 | 0.9 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | 99.288 |
| > | 103 | Rh | | |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 4**

Sample Date/Time: Tuesday, October 29, 2019 07:04:35
Report Date/Time: Tuesday, October 29, 2019 07:20:47
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 154221.7 | 0.6 | | | | ug/L | 162688 | Standard |
| | **Y** | 89 | 277208.3 | 1.2 | | | | ug/L | 281816 | Standard |
| > | **Rh** | 103 | 251516.4 | 1.5 | | | | ug/L | 252010 | Standard |
| | **Ag** | 107 | 3479.1 | 2.6 | **0.4565** | 0.006 | 1.3 | ug/L | 297 | Standard |
| | **In** | 115 | 521600.7 | 0.9 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 99.804 |
| | 107Ag | 91.308 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 29, 2019 07:07:28
Report Date/Time: Tuesday, October 29, 2019 07:20:52
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 141792.6 | 0.9 | | | | ug/L | 162688 | Standard |
| | **Y** | 89 | 245287.7 | 3.6 | | | | ug/L | 281816 | Standard |
| > | **Rh** | 103 | 225936.2 | 1.5 | | | | ug/L | 252010 | Standard |
| > | **Ag** | 107 | 255602.4 | 2.1 | **40.7854** | 0.810 | 2.0 | ug/L | 297 | Standard |
| | **In** | 115 | 472559.6 | 1.0 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 89.654 |
| > | 107 | Ag | 101.964 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**
Sample Date/Time: Tuesday, October 29, 2019 07:10:20
Report Date/Time: Tuesday, October 29, 2019 07:20:57
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 155141.6 | 2.8 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 272957.4 | 3.2 | | | | ug/L | 281816 | Standard |
| [> | Rh | 103 | 249245.3 | 5.0 | | | | ug/L | 252010 | Standard |
| [ | Ag | 107 | 597.0 | 3.8 | **0.0439** | 0.002 | 5.3 | ug/L | 297 | Standard |
| | In | 115 | 504043.3 | 4.3 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 98.903 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Tuesday, October 29, 2019 07:12:22
Report Date/Time: Tuesday, October 29, 2019 07:21:01
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 124836.8 | 1.7 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 225338.2 | 3.3 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 189469.8 | 2.7 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 318.3 | 2.7 | **0.0181** | 0.003 | 16.5 | ug/L | 297 | Standard |
| | In | 115 | 408191.8 | 1.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 75.184 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSAB

Sample Date/Time: Tuesday, October 29, 2019 07:15:14
Report Date/Time: Tuesday, October 29, 2019 07:21:04
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 129151.9 | 1.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 231505.4 | 1.5 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 198243.6 | 1.6 | | | | ug/L | 252010 | Standard |
| > | Ag | 107 | 156424.4 | 6.0 | **28.4189** | 1.257 | 4.4 | ug/L | 297 | Standard |
| | In | 115 | 416921.9 | 1.6 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 78.665 |
| > | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: ICSAB**

Sample Date/Time: Tuesday, October 29, 2019 07:23:18
Report Date/Time: Tuesday, October 29, 2019 07:23:48
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 138143.8 | 1.1 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 245143.6 | 1.2 | | | | ug/L | 281816 | Standard |
| [> | Rh | 103 | 219186.3 | 1.7 | | | | ug/L | 252010 | Standard |
| [ | Ag | 107 | 203902.6 | 2.7 | **33.5253** | 0.473 | 1.4 | ug/L | 297 | Standard |
| | In | 115 | 433969.4 | 1.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 86.975 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: MB1028SH1 25X**

Sample Date/Time: Tuesday, October 29, 2019 07:26:29
Report Date/Time: Tuesday, October 29, 2019 07:26:59
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 161238.6 | 1.1 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 260420.0 | 1.7 | | | | ug/L | 281816 | Standard |
| [> | Rh | 103 | 214728.1 | 1.7 | | | | ug/L | 252010 | Standard |
| [ | Ag | 107 | 1238.1 | 3.1 | 0.1655 | 0.006 | 3.7 | ug/L | 297 | Standard |
| | In | 115 | 537457.2 | 2.0 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 85.206 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: SB1028SH1 25X

Sample Date/Time: Tuesday, October 29, 2019 07:29:19
Report Date/Time: Tuesday, October 29, 2019 07:29:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 160648.2 | 0.6 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 259370.9 | 1.2 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 221131.8 | 0.9 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 103177.0 | 1.3 | **16.7969** | 0.325 | 1.9 | ug/L | 297 | Standard |
| | In | 115 | 523535.5 | 1.1 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 87.747 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02a 25X**

Sample Date/Time: Tuesday, October 29, 2019 07:32:10
Report Date/Time: Tuesday, October 29, 2019 07:32:40
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 157348.7 | 2.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 265165.4 | 0.9 | | | | ug/L | 281816 | Standard |
| [> | Rh | 103 | 209854.9 | 1.1 | | | | ug/L | 252010 | Standard |
| [ | Ag | 107 | 3373.1 | 0.3 | 0.5375 | 0.007 | 1.2 | ug/L | 297 | Standard |
| | In | 115 | 505049.9 | 0.2 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| [> | 103Rh | | 83.273 |
| [ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02aD 25X

Sample Date/Time: Tuesday, October 29, 2019 07:35:01
Report Date/Time: Tuesday, October 29, 2019 07:35:31
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 158496.8 | 1.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 264324.1 | 0.9 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 212964.6 | 2.5 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 3106.0 | 2.6 | 0.4838 | 0.007 | 1.4 | ug/L | 297 | Standard |
| | In | 115 | 511704.7 | 1.2 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 84.507 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02aL 125X

Sample Date/Time: Tuesday, October 29, 2019 07:37:53
Report Date/Time: Tuesday, October 29, 2019 07:38:24
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 153806.3 | 1.5 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 260358.5 | 0.8 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 236105.4 | 2.8 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 827.0 | 4.0 | 0.0840 | 0.008 | 9.7 | ug/L | 297 | Standard |
| | In | 115 | 470126.0 | 1.0 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 93.689 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aMS 25X**
Sample Date/Time: Tuesday, October 29, 2019 07:40:46
Report Date/Time: Tuesday, October 29, 2019 07:41:17
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 155561.1 | 0.3 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 263508.4 | 0.2 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 210333.8 | 0.5 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 102704.6 | 2.0 | **17.5783** | 0.318 | 1.8 | ug/L | 297 | Standard |
| | In | 115 | 502454.2 | 0.9 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 83.463 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02aMSD 25X**

Sample Date/Time: Tuesday, October 29, 2019 07:43:38
Report Date/Time: Tuesday, October 29, 2019 07:44:09
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 155371.4 | 1.1 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 259512.0 | 0.8 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 201815.0 | 1.1 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 95228.4 | 1.2 | **16.9855** | 0.079 | 0.5 | ug/L | 297 | Standard |
| | In | 115 | 500620.0 | 0.3 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 80.082 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-02aPS 25X

Sample Date/Time: Tuesday, October 29, 2019 07:46:30
Report Date/Time: Tuesday, October 29, 2019 07:47:01
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 154343.6 | 2.4 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 262853.5 | 0.1 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 215568.2 | 1.5 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 209970.0 | 3.0 | **35.1023** | 0.517 | 1.5 | ug/L | 297 | Standard |
| | In | 115 | 489434.0 | 1.8 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 85.540 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 29, 2019 07:49:23
Report Date/Time: Tuesday, October 29, 2019 07:49:53
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 153116.1 | 2.1 | | | | ug/L | 162688 | Standard |
| | **Y** | 89 | 272836.1 | 1.5 | | | | ug/L | 281816 | Standard |
| > | **Rh** | 103 | 260704.3 | 1.4 | | | | ug/L | 252010 | Standard |
| | **Ag** | 107 | 285549.0 | 3.1 | **39.4832** | 1.039 | 2.6 | ug/L | 297 | Standard |
| | **In** | 115 | 458449.6 | 0.2 | | | | ug/L | 550822 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 103.450 |
| | 107 | Ag | 98.708 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Tuesday, October 29, 2019 07:52:15
Report Date/Time: Tuesday, October 29, 2019 07:52:46
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 170584.5 | 1.1 | | | | ug/L | 162688 | Standard |
| | **Y** | 89 | 295746.7 | 2.3 | | | | ug/L | 281816 | Standard |
| ⌈> | **Rh** | 103 | 286124.3 | 2.3 | | | | ug/L | 252010 | Standard |
| ⌊ | **Ag** | 107 | 885.7 | 7.6 | **0.0691** | 0.008 | 11.8 | ug/L | 297 | Standard |
| | **In** | 115 | 511338.9 | 1.1 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 113.537 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-02a 25X**
Sample Date/Time: Tuesday, October 29, 2019 07:55:30
Report Date/Time: Tuesday, October 29, 2019 07:56:01
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 160502.8 | 1.6 | | | | ug/L | 162688 | Standard |
| | **Y** | 89 | 272355.5 | 2.6 | | | | ug/L | 281816 | Standard |
| ⌈> | **Rh** | 103 | 218439.5 | 1.2 | | | | ug/L | 252010 | Standard |
| ⌊ | **Ag** | 107 | 3451.1 | 4.6 | **0.5275** | 0.024 | 4.6 | ug/L | 297 | Standard |
| | **In** | 115 | 504451.0 | 1.5 | | | | ug/L | 550822 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 86.679 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-01 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:01:35
Report Date/Time: Tuesday, October 29, 2019 08:02:06
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 162959.5 | 0.6 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 313324.3 | 0.9 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 205063.7 | 0.8 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 1682.8 | 5.4 | **0.2535** | 0.014 | 5.4 | ug/L | 297 | Standard |
| | In | 115 | 519225.7 | 1.1 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 81.371 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-03 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:04:27
Report Date/Time: Tuesday, October 29, 2019 08:04:57
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 171183.2 | 0.7 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 383654.0 | 1.9 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 215646.6 | 1.3 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 4574.7 | 3.3 | 0.7229 | 0.016 | 2.3 | ug/L | 297 | Standard |
| | In | 115 | 546285.6 | 1.1 | | | | ug/L | 550822 | Standard |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 85.571 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-04 25X

Sample Date/Time: Tuesday, October 29, 2019 08:07:19
Report Date/Time: Tuesday, October 29, 2019 08:07:49
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 167038.4 | 1.5 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 361787.9 | 1.9 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 216773.7 | 1.9 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 2534.6 | 2.9 | **0.3794** | 0.010 | 2.7 | ug/L | 297 | Standard |
| | In | 115 | 545414.9 | 2.1 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 86.018 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-05 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:10:10
Report Date/Time: Tuesday, October 29, 2019 08:10:41
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 166956.4 | 1.4 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 302663.7 | 0.8 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 208874.4 | 1.0 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 7590.3 | 1.8 | **1.2688** | 0.015 | 1.2 | ug/L | 297 | Standard |
| | In | 115 | 527317.0 | 1.7 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 82.884 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-06 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:13:02
Report Date/Time: Tuesday, October 29, 2019 08:13:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 172366.4 | 1.1 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 306199.9 | 0.8 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 215733.2 | 2.2 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 7263.2 | 2.9 | **1.1724** | 0.028 | 2.4 | ug/L | 297 | Standard |
| | In | 115 | 545284.9 | 1.4 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 85.605 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-07 25X

Sample Date/Time: Tuesday, October 29, 2019 08:15:54
Report Date/Time: Tuesday, October 29, 2019 08:16:24
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 174679.9 | 0.9 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 324072.9 | 1.6 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 219245.2 | 3.0 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 4260.3 | 3.2 | 0.6586 | 0.002 | 0.3 | ug/L | 297 | Standard |
| | In | 115 | 557113.6 | 0.6 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 86.999 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-08 25X

Sample Date/Time: Tuesday, October 29, 2019 08:18:45
Report Date/Time: Tuesday, October 29, 2019 08:19:15
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 168030.5 | 0.8 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 357535.7 | 0.9 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 225099.1 | 1.1 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 11057.6 | 1.4 | 1.7305 | 0.043 | 2.5 | ug/L | 297 | Standard |
| | In | 115 | 527648.2 | 1.1 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 89.322 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-09 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:21:35
Report Date/Time: Tuesday, October 29, 2019 08:22:05
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 178588.5 | 1.4 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 325150.9 | 1.0 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 225965.3 | 1.3 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 35814.5 | 0.6 | 5.6775 | 0.055 | 1.0 | ug/L | 297 | Standard |
| | In | 115 | 551175.4 | 0.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 89.665 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-10 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:24:27
Report Date/Time: Tuesday, October 29, 2019 08:24:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 177945.6 | 1.6 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 343390.5 | 1.2 | | | | ug/L | 281816 | Standard |
| ⌈> | Rh | 103 | 223893.4 | 1.4 | | | | ug/L | 252010 | Standard |
| ⌊ | Ag | 107 | 6662.2 | 2.1 | **1.0313** | 0.017 | 1.7 | ug/L | 297 | Standard |
| | In | 115 | 562621.9 | 1.0 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 88.843 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Tuesday, October 29, 2019 08:27:20
Report Date/Time: Tuesday, October 29, 2019 08:27:50
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 165197.3 | 2.1 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 289164.7 | 3.1 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 266934.9 | 2.1 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 296080.5 | 2.7 | **39.9866** | 0.804 | 2.0 | ug/L | 297 | Standard |
| | In | 115 | 482762.1 | 1.2 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 105.923 |
| | 107 | Ag | 99.967 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Tuesday, October 29, 2019 08:30:12
Report Date/Time: Tuesday, October 29, 2019 08:30:43
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 179790.8 | 1.7 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 323495.4 | 2.1 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 312449.3 | 1.8 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 770.7 | 2.9 | **0.0465** | 0.003 | 6.1 | ug/L | 297 | Standard |
| | In | 115 | 526477.0 | 1.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 123.983 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-363-11 25X

Sample Date/Time: Tuesday, October 29, 2019 08:32:32
Report Date/Time: Tuesday, October 29, 2019 08:33:04
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 167394.8 | 1.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 299850.0 | 0.8 | | | | ug/L | 281816 | Standard |
| > | Rh | 103 | 208989.0 | 1.1 | | | | ug/L | 252010 | Standard |
| | Ag | 107 | 3825.2 | 1.0 | 0.6180 | 0.013 | 2.2 | ug/L | 297 | Standard |
| | In | 115 | 529764.7 | 1.2 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 82.929 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-363-12 25X**

Sample Date/Time: Tuesday, October 29, 2019 08:35:26
Report Date/Time: Tuesday, October 29, 2019 08:35:57
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 169657.2 | 0.4 | | | | ug/L | 162688 | Standard |
| | **Y** | 89 | 337073.1 | 1.4 | | | | ug/L | 281816 | Standard |
| > | **Rh** | 103 | 209547.1 | 1.2 | | | | ug/L | 252010 | Standard |
| | **Ag** | 107 | 3486.8 | 2.4 | **0.5578** | 0.007 | 1.3 | ug/L | 297 | Standard |
| | **In** | 115 | 539851.7 | 0.7 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 83.150 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Tuesday, October 29, 2019 08:38:19
Report Date/Time: Tuesday, October 29, 2019 08:38:50
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191029A.sam
Method File: C:\NexION\Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 167280.7 | 0.9 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 291298.8 | 2.1 | | | | ug/L | 281816 | Standard |
| ⌈> | Rh | 103 | 272754.0 | 3.3 | | | | ug/L | 252010 | Standard |
| ⌊ | Ag | 107 | 302785.5 | 3.9 | **40.0132** | 0.267 | 0.7 | ug/L | 297 | Standard |
| | In | 115 | 484257.8 | 1.7 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 108.232 |
| ⌊ | 107 | Ag | 100.033 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Tuesday, October 29, 2019 08:41:11
Report Date/Time: Tuesday, October 29, 2019 08:41:42
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191029A.sam
Method File: C:\NexION Data\Method\X191029B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 181907.5 | 2.2 | | | | ug/L | 162688 | Standard |
| | Y | 89 | 317601.5 | 2.0 | | | | ug/L | 281816 | Standard |
| ⌈> | Rh | 103 | 296639.1 | 2.8 | | | | ug/L | 252010 | Standard |
| ⌊ | Ag | 107 | 689.4 | 5.6 | 0.0413 | 0.003 | 7.1 | ug/L | 297 | Standard |
| | In | 115 | 520864.6 | 1.5 | | | | ug/L | 550822 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 117.709 |
| ⌊ | 107Ag | | |
| | 115In | | |

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 1, 2019

Nick Rohrbach
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 4296-008-01
Laboratory Reference No. 1910-388

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on October 30, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**Case Narrative**

Samples were collected on October 29, 2019 and received by the laboratory on October 30, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**ANALYTICAL REPORT FOR SAMPLES**

| Client ID | Laboratory ID | Matrix | Date Sampled | Date Received | Notes |
|---|---|---|---|---|---|
| SR01-CS-01-02 | 10-388-01 | Soil | 10-29-19 | 10-30-19 | |
| SR01-CS-02-02 | 10-388-02 | Soil | 10-29-19 | 10-30-19 | |
| SR01-CS-03-02 | 10-388-03 | Soil | 10-29-19 | 10-30-19 | |
| SR01-CS-04-02 | 10-388-04 | Soil | 10-29-19 | 10-30-19 | |
| SR01-CS-05-02 | 10-388-05 | Soil | 10-29-19 | 10-30-19 | |
| SR01-CS-06-02 | 10-388-06 | Soil | 10-29-19 | 10-30-19 | |
| DUP-2 | 10-388-07 | Soil | 10-29-19 | 10-30-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR01-CS-01-02** | | | | | |
| Laboratory ID: | 10-388-01 | | | | | |
| Arsenic | **86** | 0.70 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **13** | 0.70 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **42000** | 140 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **9.2** | 0.70 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **1300** | 28 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.12** | 0.028 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.58** | 0.28 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **ND** | 0.70 | EPA 6020B | 10-31-19 | 10-31-19 | |
| **Client ID:** | **SR01-CS-02-02** | | | | | |
| Laboratory ID: | 10-388-02 | | | | | |
| Arsenic | **140** | 1.3 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **80** | 1.3 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **38000** | 130 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **14** | 1.3 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **1200** | 27 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.27** | 0.027 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.77** | 0.27 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **2.6** | 0.67 | EPA 6020B | 10-31-19 | 10-31-19 | |
| **Client ID:** | **SR01-CS-03-02** | | | | | |
| Laboratory ID: | 10-388-03 | | | | | |
| Arsenic | **55** | 0.66 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **39** | 0.66 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **26000** | 130 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **8.3** | 0.66 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **1700** | 26 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.054** | 0.026 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.60** | 0.26 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **ND** | 0.66 | EPA 6020B | 10-31-19 | 10-31-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **SR01-CS-04-02** | | | | | |
| Laboratory ID: | 10-388-04 | | | | | |
| Arsenic | **19** | 0.27 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **110** | 1.3 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **24000** | 130 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **6.0** | 1.3 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **800** | 27 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.24** | 0.027 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.50** | 0.27 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **ND** | 0.67 | EPA 6020B | 10-31-19 | 10-31-19 | |
| **Client ID:** | **SR01-CS-05-02** | | | | | |
| Laboratory ID: | 10-388-05 | | | | | |
| Arsenic | **68** | 0.69 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **81** | 0.69 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **28000** | 140 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **13** | 0.69 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **1200** | 28 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.16** | 0.028 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.72** | 0.28 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **0.86** | 0.69 | EPA 6020B | 10-31-19 | 10-31-19 | |
| **Client ID:** | **SR01-CS-06-02** | | | | | |
| Laboratory ID: | 10-388-06 | | | | | |
| Arsenic | **100** | 0.75 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **77** | 0.75 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **38000** | 150 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **11** | 0.75 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **1200** | 30 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.22** | 0.030 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.61** | 0.30 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **1.4** | 0.75 | EPA 6020B | 10-31-19 | 10-31-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **Client ID:** | **DUP-2** | | | | | |
| Laboratory ID: | 10-388-07 | | | | | |
| Arsenic | **130** | 1.4 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **57** | 1.4 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Iron | **43000** | 140 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Lead | **9.9** | 1.4 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Manganese | **1900** | 27 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Mercury | **0.29** | 0.027 | EPA 7471B | 10-31-19 | 10-31-19 | |
| Selenium | **0.63** | 0.27 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Silver | **2.9** | 0.69 | EPA 6020B | 10-31-19 | 10-31-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | PQL | Method | Date Prepared | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB1031SH1 | | | | | |
| Iron | **ND** | 2.5 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Manganese | **ND** | 0.50 | EPA 6010D | 10-31-19 | 10-31-19 | |
| Laboratory ID: | MB1030SM2 | | | | | |
| Arsenic | **ND** | 0.13 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Barium | **ND** | 0.13 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Lead | **ND** | 0.13 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Selenium | **ND** | 0.13 | EPA 6020B | 10-30-19 | 10-31-19 | |
| Laboratory ID: | MB1031S1 | | | | | |
| Mercury | **ND** | 0.025 | EPA 7471B | 10-31-19 | 10-31-19 | |
| **METHOD BLANK** | | | | | | |
| Laboratory ID: | MB1031SH1 | | | | | |
| Silver | **ND** | 0.63 | EPA 6020B | 10-30-19 | 10-31-19 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**QUALITY CONTROL**

Matrix: Soil
Units: mg/Kg (ppm)

| Analyte | Result | | Spike Level | | Source Result | Percent Recovery | | Recovery Limits | RPD | RPD Limit | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DUPLICATE** | | | | | | | | | | | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Iron | **22300** | **22400** | NA | NA | | NA | | NA | 0 | 20 | |
| Manganese | **750** | **725** | NA | NA | | NA | | NA | 3 | 20 | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| Arsenic | **18.2** | **16.0** | NA | NA | | NA | | NA | 13 | 20 | |
| Barium | **106** | **107** | NA | NA | | NA | | NA | 1 | 20 | |
| Lead | **5.60** | **5.75** | NA | NA | | NA | | NA | 3 | 20 | |
| Selenium | **0.466** | **0.438** | NA | NA | | NA | | NA | 6 | 20 | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| Mercury | **0.226** | **0.191** | NA | NA | | NA | | NA | 17 | 20 | |
| **DUPLICATE** | | | | | | | | | | | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| | ORIG | DUP | | | | | | | | | |
| Silver | **ND** | **ND** | NA | NA | | NA | | NA | NA | 20 | |
| **MATRIX SPIKES** | | | | | | | | | | | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Iron | **22500** | **22200** | 1000 | 1000 | 22300 | **21** | **-7** | 75-125 | 1 | 20 | A |
| Manganese | **735** | **733** | 25.0 | 25.0 | 750 | **-60** | **-70** | 75-125 | 0 | 20 | A |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| Arsenic | **102** | **103** | 100 | 100 | 18.2 | **84** | **85** | 75-125 | 1 | 20 | |
| Barium | **199** | **199** | 100 | 100 | 106 | **94** | **93** | 75-125 | 0 | 20 | |
| Lead | **229** | **230** | 250 | 250 | 5.60 | **89** | **90** | 75-125 | 0 | 20 | |
| Selenium | **87.8** | **86.5** | 100 | 100 | 0.466 | **87** | **86** | 75-125 | 1 | 20 | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| Mercury | **0.711** | **0.717** | 0.500 | 0.500 | 0.226 | **97** | **98** | 80-120 | 1 | 20 | |
| **MATRIX SPIKES** | | | | | | | | | | | |
| Laboratory ID: | 10-388-04 | | | | | | | | | | |
| | MS | MSD | MS | MSD | | MS | MSD | | | | |
| Silver | **22.8** | **22.9** | 25.0 | 25.0 | ND | **91** | **92** | 75-125 | 1 | 20 | |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | ICV103119X | 0.0500 | 0.0511 | -2.2 | +/- 10% |
| Barium | ICV103119X | 0.0500 | 0.0511 | -2.2 | +/- 10% |
| Iron | ICV103119P | 1.00 | 1.07 | -7.0 | +/- 10% |
| Lead | ICV103119X | 0.0500 | 0.0512 | -2.4 | +/- 10% |
| Manganese | ICV103119P | 1.00 | 1.08 | -8.0 | +/- 10% |
| Mercury | ICV103119Y | 0.00500 | 0.00490 | 2.0 | +/- 10% |
| Selenium | ICV103119X | 0.0500 | 0.0513 | -2.6 | +/- 10% |
| Silver | ICV103119X | 0.0500 | 0.0517 | -3.4 | +/- 10% |
| Arsenic | LLV103119X | 0.000500 | 0.000440 | 12 | +/- 20% |
| Barium | LLV103119X | 0.000500 | 0.000512 | -2.4 | +/- 20% |
| Iron | LLV103119P | 0.0500 | 0.0550 | -10 | +/- 20% |
| Lead | LLV103119X | 0.000500 | 0.000513 | -2.6 | +/- 20% |
| Manganese | LLV103119P | 0.0100 | 0.0113 | -13.0 | +/- 20% |
| Selenium | LLV103119X | 0.000500 | 0.000512 | -2.4 | +/- 20% |
| Silver | LLV103119X | 0.000500 | 0.000513 | -2.6 | +/- 20% |
| Arsenic | CCV1103119X | 0.0400 | 0.0388 | 3.0 | +/- 10% |
| Barium | CCV1103119X | 0.0400 | 0.0391 | 2.3 | +/- 10% |
| Iron | CCV1103119P | 5.00 | 5.23 | -4.6 | +/- 10% |
| Lead | CCV1103119X | 0.0400 | 0.0391 | 2.3 | +/- 10% |
| Manganese | CCV1103119P | 1.00 | 1.05 | -5.0 | +/- 10% |
| Mercury | CCV1103119Y | 0.00500 | 0.00495 | 1.0 | +/- 20% |
| Selenium | CCV1103119X | 0.0400 | 0.0393 | 1.8 | +/- 10% |
| Silver | CCV1103119X | 0.0400 | 0.0391 | 2.3 | +/- 10% |
| Arsenic | CCV2103119X | 0.0400 | 0.0374 | 6.5 | +/- 10% |
| Barium | CCV2103119X | 0.0400 | 0.0398 | 0.50 | +/- 10% |
| Iron | CCV2103119P | 5.00 | 5.27 | -5.4 | +/- 10% |
| Lead | CCV2103119X | 0.0400 | 0.0387 | 3.3 | +/- 10% |
| Manganese | CCV2103119P | 1.00 | 1.06 | -6.0 | +/- 10% |
| Mercury | CCV2103119Y | 0.00500 | 0.00500 | 0 | +/- 20% |
| Selenium | CCV2103119X | 0.0400 | 0.0374 | 6.5 | +/- 10% |
| Silver | CCV2103119X | 0.0400 | 0.0373 | 6.8 | +/- 10% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**TOTAL METALS**
**EPA 6010D/6020B/7471B**
**CONTINUING CALIBRATION SUMMARY**

| Analyte | Lab ID | True Value (ppm) | Calc. Value | Percent Difference | Control Limits |
|---|---|---|---|---|---|
| Arsenic | CCV3103119X | 0.0400 | 0.0401 | -0.25 | +/- 10% |
| Barium | CCV3103119X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Iron | CCV3103119P | 5.00 | 5.26 | -5.2 | +/- 10% |
| Lead | CCV3103119X | 0.0400 | 0.0388 | 3.0 | +/- 10% |
| Manganese | CCV3103119P | 1.00 | 1.05 | -5.0 | +/- 10% |
| Mercury | CCV3103119Y | 0.00500 | 0.00505 | -1.0 | +/- 20% |
| Selenium | CCV3103119X | 0.0400 | 0.0384 | 4.0 | +/- 10% |
| Silver | CCV3103119X | 0.0400 | 0.0390 | 2.5 | +/- 10% |
| Arsenic | CCV4103119X | 0.0400 | 0.0389 | 2.8 | +/- 10% |
| Barium | CCV4103119X | 0.0400 | 0.0400 | 0 | +/- 10% |
| Iron | CCV4103119P | 5.00 | 5.20 | -4.0 | +/- 10% |
| Lead | CCV4103119X | 0.0400 | 0.0390 | 2.5 | +/- 10% |
| Manganese | CCV4103119P | 1.00 | 1.05 | -5.0 | +/- 10% |
| Mercury | CCV4103119Y | 0.00500 | 0.00494 | 1.1 | +/- 20% |
| Selenium | CCV4103119X | 0.0400 | 0.0376 | 6.0 | +/- 10% |
| Mercury | CCV5103119Y | 0.00500 | 0.00487 | 2.6 | +/- 20% |
| Mercury | CCV6103119Y | 0.00500 | 0.00519 | -3.8 | +/- 20% |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 1, 2019
Samples Submitted: October 30, 2019
Laboratory Reference: 1910-388
Project: 4296-008-01

**% MOISTURE**

| Client ID | Lab ID | % Moisture | Date Analyzed |
|---|---|---|---|
| **SR01-CS-01-02** | 10-388-01 | **11** | 10-30-19 |
| **SR01-CS-02-02** | 10-388-02 | **7** | 10-30-19 |
| **SR01-CS-03-02** | 10-388-03 | **5** | 10-30-19 |
| **SR01-CS-04-02** | 10-388-04 | **7** | 10-30-19 |
| **SR01-CS-05-02** | 10-388-05 | **10** | 10-30-19 |
| **SR01-CS-06-02** | 10-388-06 | **17** | 10-30-19 |
| **DUP-2** | 10-388-07 | **9** | 10-30-19 |



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

**Data Qualifiers and Abbreviations**

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference



This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

# Chain of Custody





**OnSite Environmental Inc.**
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers, Inc
Project Number: 4296-008-01
Project Name: Interim Remedial Action Design + Remedial Action
Project Manager: Nick Rohrbach (nrohrbach@geoengineers.com)
Sampled by: Justin Orr

**Turnaround Request (in working days)**
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

**Laboratory Number:** 10-388

| Lab ID | Sample Identification | Date Sampled | Time Sampled | Matrix | Number of Containers |
|---|---|---|---|---|---|
| 1 | SR01-CS-01-02 | 10/29/19 | 0820 | S | 1 |
| 2 | SR01-CS-02-02 | | 0835 | | 1 |
| 3 | SR01-CS-03-02 | | 0855 | | 1 |
| 4 | SR01-CS-04-02 | | 0915 | | 3 |
| 5 | SR01-CS-05-02 | | 0940 | | 1 |
| 6 | SR01-CS-06-02 | | 0955 | | 1 |
| 7 | DUP-2 | | 0800 | | 1 |

| Lab ID | NWTPH-HCID | NWTPH-Gx/BTEX | NWTPH-Gx | NWTPH-Dx (☐ Acid / SG Clean-up) | Volatiles 8260C | Halogenated Volatiles 8260C | EDB EPA 8011 (Waters Only) | Semivolatiles 8270D/SIM (with low-level PAHs) | PAHs 8270D/SIM (low-level) | PCBs 8082A | Organochlorine Pesticides 8081B | Organophosphorus Pesticides 8270D/SIM | Chlorinated Acid Herbicides 8151A | Total RCRA Metals | Total MTCA Metals | TCLP Metals | HEM (oil and grease) 1664A | 6010/6020B/7471B * | MS/MSD | | | % Moisture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | X | | | | 10 |
| 2 | | | | | | | | | | | | | | | | | | X | | | | |
| 3 | | | | | | | | | | | | | | | | | | X | | | | |
| 4 | | | | | | | | | | | | | | | | | | X | X | | | |
| 5 | | | | | | | | | | | | | | | | | | X | | | | |
| 6 | | | | | | | | | | | | | | | | | | X | | | | |
| 7 | | | | | | | | | | | | | | | | | | X | | | | |

| | Signature | Company | Date | Time |
|---|---|---|---|---|
| Relinquished | | GEI | 10/29/19 | |
| Received | | OSE | 10/30/19 | 1300 |
| Relinquished | | | | |
| Received | | | | |
| Relinquished | | | | |
| Received | | | | |
| Reviewed/Date | | Reviewed/Date | | |

**Comments/Special Instructions**
* Arsenic, barium, iron, lead, manganese, mercury, selenium, silver

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

# Sample/Cooler Receipt and Acceptance Checklist

Client: GET

Client Project Name/Number: 4296-008-01

OnSite Project Number: 10-388

Initiated by: MW

Date Initiated: 10/30/19

## 1.0 Cooler Verification

| | | | | |
|---|---|---|---|---|
| 1.1 Were there custody seals on the outside of the cooler? | Yes | (No) | N/A | 1 2 3 4 |
| 1.2 Were the custody seals intact? | Yes | No | (N/A) | 1 2 3 4 |
| 1.3 Were the custody seals signed and dated by last custodian? | Yes | No | (N/A) | 1 2 3 4 |
| 1.4 Were the samples delivered on ice or blue ice? | (Yes) | No | | 1 2 3 4 |
| 1.5 Were samples received between 0-6 degrees Celsius? | (Yes) | No | Temperature: 3 | |
| 1.6 Have shipping bills (if any) been attached to the back of this form? | (Yes) | N/A | | |
| 1.7 How were the samples delivered? | Client | Courier | (UPS/FedEx) | OSE Pickup Other |

## 2.0 Chain of Custody Verification

| | | | |
|---|---|---|---|
| 2.1 Was a Chain of Custody submitted with the samples? | (Yes) | No | 1 2 3 4 |
| 2.2 Was the COC legible and written in permanent ink? | (Yes) | No | 1 2 3 4 |
| 2.3 Have samples been relinquished and accepted by each custodian? | (Yes) | No | 1 2 3 4 |
| 2.4 Did the sample labels (ID, date, time, preservative) agree with COC? | (Yes) | No | 1 2 3 4 |
| 2.5 Were all of the samples listed on the COC submitted? | (Yes) | No | 1 2 3 4 |
| 2.6 Were any of the samples submitted omitted from the COC? | Yes | (No) | 1 2 3 4 |

## 3.0 Sample Verification

| | | | | |
|---|---|---|---|---|
| 3.1 Were any sample containers broken or compromised? | Yes | (No) | | 1 2 3 4 |
| 3.2 Were any sample labels missing or illegible? | Yes | (No) | | 1 2 3 4 |
| 3.3 Have the correct containers been used for each analysis requested? | (Yes) | No | | 1 2 3 4 |
| 3.4 Have the samples been correctly preserved? | Yes | No | (N/A) | 1 2 3 4 |
| 3.5 Are volatiles samples free from headspace and bubbles greater than 6mm? | Yes | No | (N/A) | 1 2 3 4 |
| 3.6 Is there sufficient sample submitted to perform requested analyses? | (Yes) | No | | 1 2 3 4 |
| 3.7 Have any holding times already expired or will expire in 24 hours? | Yes | (No) | | 1 2 3 4 |
| 3.8 Was method 5035A used? | Yes | No | (N/A) | 1 2 3 4 |
| 3.9 If 5035A was used, which sampling option was used (#1, 2, or 3). | # | | (N/A) | 1 2 3 4 |

**Explain any discrepancies:**

| |
|---|
| |
| |
| |
| |
| |
| |

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

# RAW DATA

- Total Metals EPA 6010D/6020B/7471B

# Total Metals
# EPA 6010D/6020B/7471B Data

 KH 10/31/19 

Auto Sampler Type: SPS5 (Varian)

Rack: 1 Type: 60 x 25 ml

| Tube | Sample Label | Type | Weight | Volume | Dilution |
|---|---|---|---|---|---|
| 1 | Initial Calib Verif | ICV | 1.0000 | 1.00 | 1.00 |
| 2 | Initial Calib Blank | ICB | 1.0000 | 1.00 | 1.00 |
| 3 | LLV | Samp | 1.0000 | 1.00 | 1.00 |
| 4 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 5 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 6 | ICSA | Samp | 1.0000 | 1.00 | 1.00 |
| 7 | ICSAB | Samp | 1.0000 | 1.00 | 1.00 |
| 8 | MB1031SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 9 | SB1031SM1 | Samp | 1.0000 | 1.00 | 1.00 |
| 10 | 10-393-01 | Samp | 1.0000 | 1.00 | 1.00 |
| 11 | 10-393-01 D | Samp | 1.0000 | 1.00 | 1.00 |
| 12 | 10-393-01 L | Samp | 1.0000 | 1.00 | 1.00 |
| 13 | 10-393-01 MS | Samp | 1.0000 | 1.00 | 1.00 |
| 14 | 10-393-01 MSD | Samp | 1.0000 | 1.00 | 1.00 |
| 15 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 16 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 17 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 18 | 10-393-02 | Samp | 1.0000 | 1.00 | 1.00 |
| 19 | 10-393-03 | Samp | 1.0000 | 1.00 | 1.00 |
| 20 | 10-393-07 | Samp | 1.0000 | 1.00 | 1.00 |
| 21 | 10-393-08 | Samp | 1.0000 | 1.00 | 1.00 |
| 22 | 10-393-09 | Samp | 1.0000 | 1.00 | 1.00 |
| 23 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 24 | MB1031SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 25 | SB1031SH1 | Samp | 1.0000 | 1.00 | 1.00 |
| 26 | 10-388-04a X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 27 | 10-388-04a DX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 28 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 29 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 30 | 10-388-04a LX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 31 | 10-388-04a MSX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 32 | 10-388-04a MSDX 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 33 | 10-388-01 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 34 | 10-388-02 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 35 | 10-388-03 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 36 | 10-388-05 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 37 | 10-388-06 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 38 | 10-388-07 X 50 | Samp | 1.0000 | 1.00 | 1.00 |
| 39 | Cont Calib Verif | CCV | 1.0000 | 1.00 | 1.00 |
| 40 | Cont Calib Blank | CCB | 1.0000 | 1.00 | 1.00 |
| 41 | 10-295-03d X1.11(102 | Samp | 1.0000 | 1.00 | 1.00 |
| 42 | 10-295-03d DX 1.11 | Samp | 1.0000 | 1.00 | 1.00 |
| 43 | MB1025F1 X 1.11 | Samp | 1.0000 | 1.00 | 1.00 |
| 44 | SB1025F1 X 1.11 | Samp | 1.0000 | 1.00 | 1.00 |
| 45 | BLK | Samp | 1.0000 | 1.00 | 1.00 |
| 46 | 10-326-01a X 1.11 | Samp | 1.0000 | 1.00 | 1.00 |
| 47 | 10-326-01a DX 1.11 | Samp | 1.0000 | 1.00 | 1.00 |
| 48 | 10-326-01a LX 1.11 | Samp | 1.0000 | 1.00 | 1.00 |
| 49 | 10-326-01a MSX 1.11 | Samp | 1.0000 | 1.00 | 1.00 |

P191031F1. All Data Report 10/31/2019, 1:50:15 PM

**Blank (Blk)** **10/31/2019, 9:33:55 AM** **Rack 2, Tube 1**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | -0.001 | 0.001 | -0.000 |
| Mn 257.610 | 0.000 | 0.000 | -0.000 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 0.000 | ppb | 0.728 | 15.9 | 4.582 |
| Mn 257.610 | 0.000 | ppb | 2.815 | 126.5 | 2.225 |

**Standard 5 (Std)** **10/31/2019, 8:52:57 AM** **Rack 2, Tube 3**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.050 | 0.045 | 0.052 |
| Mn 257.610 | 0.011 | 0.011 | 0.011 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 50.000 | ppb | 2.612 | 5.8 | 45.216 |
| Mn 257.610 | 10.000 | ppb | 0.576 | 0.5 | 114.92 |

**Standard 4 (Std)** **10/31/2019, 8:57:15 AM** **Rack 2, Tube 4**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 0.531 | 0.547 | 0.547 |
| Mn 257.610 | 0.109 | 0.111 | 0.111 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 500.00 | ppb | 7.796 | 1.7 | 454.16 |
| Mn 257.610 | 100.00 | ppb | 10.803 | 1.0 | 1111.4 |

**Standard 3 (Std)** **10/31/2019, 9:12:19 AM** **Rack 2, Tube 5**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 5.199 | 5.240 | 5.296 |
| Mn 257.610 | 1.041 | 1.052 | 1.049 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 5000.0 | ppb | 40.231 | 0.9 | 4359.2 |
| Mn 257.610 | 1000.0 | ppb | 57.142 | 0.5 | 10496 |

**Standard 2 (Std)** **10/31/2019, 9:41:28 AM** **Rack 2, Tube 6**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 11.831 | 11.958 | 12.051 |
| Mn 257.610 | 2.457 | 2.492 | 2.493 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 12500 | ppb | 91.585 | 0.9 | 9923.2 |
| Mn 257.610 | 2500.0 | ppb | 202.597 | 0.8 | 24849 |

P191031F1. All Data Report 10/31/2019, 1:50:15 PM

**Standard 1 (Std)** **10/31/2019, 9:45:47 AM** **Rack 2, Tube 7**

| Label | Replicates Concentration | | |
|---|---|---|---|
| Fe 259.940 | 25.074 | 25.137 | 25.469 |

| Label | Sol'n Conc. | Units | SD(Int) | %RSD(Int) | Int. (c/s) |
|---|---|---|---|---|---|
| Fe 259.940 | 25000 | ppb | 176.459 | 0.8 | 20949 |

**Fe 259.940 Calibration (ppm)** **10/31/2019, 9:45:47 AM** **Correlation Coefficient: 0.999580**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 4.582 | 0.000 | 0.000 | - | - |
| Standard 5 | | 45.216 | 0.050 | 0.049 | -0.001 | -2.1 |
| Standard 4 | | 454.16 | 0.500 | 0.542 | 0.042 | 8.3 |
| Standard 3 | | 4359.2 | 5.000 | 5.245 | 0.245 | 4.9 |
| Standard 2 | | 9923.2 | 12.500 | 11.947 | -0.553 | -4.4 |
| Standard 1 | | 20949 | 25.000 | 25.227 | 0.227 | 0.9 |

Curve Type: Linear Equation: y = 830.2 x + 4.6

**Mn 257.610 Calibration (ppm)** **10/31/2019, 9:41:28 AM** **Correlation Coefficient: 0.999754**

| Label | Flags | Int. (c/s) | Std Conc. | Calc Conc. | Error | %Error |
|---|---|---|---|---|---|---|
| Blank | | 2.225 | 0.000 | 0.000 | - | - |
| Standard 5 | | 114.92 | 0.010 | 0.011 | 0.001 | 12.5 |
| Standard 4 | | 1111.4 | 0.100 | 0.111 | 0.011 | 10.7 |
| Standard 3 | | 10496 | 1.000 | 1.048 | 0.048 | 4.8 |
| Standard 2 | | 24849 | 2.500 | 2.481 | -0.019 | -0.8 |

Curve Type: Linear Equation: y = 10016.8 x + 2.2

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| Blank | Fe 259.940 | 0.000 | ppb | 10/31/2019, 9:33:55 AM |
| | Mn 257.610 | 0.000 | ppb | |
| Standard 5 | Fe 259.940 | 50.000 | ppb | 10/31/2019, 8:52:57 AM |
| | Mn 257.610 | 10.000 | ppb | |
| Standard 4 | Fe 259.940 | 500.00 | ppb | 10/31/2019, 8:57:15 AM |
| | Mn 257.610 | 100.00 | ppb | |
| Standard 3 | Fe 259.940 | 5000.0 | ppb | 10/31/2019, 9:12:19 AM |
| | Mn 257.610 | 1000.0 | ppb | |
| Standard 2 | Fe 259.940 | 12500 | ppb | 10/31/2019, 9:41:28 AM |
| | Mn 257.610 | 2500.0 | ppb | |
| Standard 1 | Fe 259.940 | 25000 | ppb | 10/31/2019, 9:45:47 AM |
| Initial Calib Verif | Fe 259.940 | 1065.8 | ppb | 10/31/2019, 10:09:08 AM |
| | Mn 257.610 | 1075.7 | ppb | |
| Initial Calib Blank | Fe 259.940 | 39.984 | ppb | 10/31/2019, 10:22:22 AM |
| | Mn 257.610 | 0.210uv | ppb | |
| LLV | Fe 259.940 | 55.013 | ppb | 10/31/2019, 10:40:51 AM |
| | Mn 257.610 | 11.250 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5231.0 | ppb | 10/31/2019, 10:48:42 AM |
| | Mn 257.610 | 1047.7 | ppb | |
| Cont Calib Blank | Fe 259.940 | 7.058 | ppb | 10/31/2019, 10:53:00 AM |
| | Mn 257.610 | 0.145 | ppb | |
| ICSA | Fe 259.940 | 157370x | ppb | 10/31/2019, 10:57:18 AM |
| | Mn 257.610 | 0.243 | ppb | |
| ICSAB | Fe 259.940 | 156698x | ppb | 10/31/2019, 11:02:33 AM |
| | Mn 257.610 | 484.98 | ppb | |
| MB1031SM1 | Fe 259.940 | 138.88 | ppb | 10/31/2019, 11:08:29 AM |
| | Mn 257.610 | 4.659 | ppb | |
| SB1031SM1 | Fe 259.940 | 10.406 | ppb | 10/31/2019, 11:12:51 AM |
| | Mn 257.610 | 1.089 | ppb | |
| 10-393-01 | Fe 259.940 | 255155x | ppb | 10/31/2019, 11:17:12 AM |
| | Mn 257.610 | 4722.6 | ppb | |
| 10-393-01 D | Fe 259.940 | 241000x | ppb | 10/31/2019, 11:21:31 AM |
| | Mn 257.610 | 4850.8 | ppb | |
| 10-393-01 L | Fe 259.940 | 59787 | ppb | 10/31/2019, 11:25:48 AM |
| | Mn 257.610 | 969.81 | ppb | |

P191031F1. Mean Only Report 10/31/2019, 1:37:47 PM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| 10-393-01 MS | Fe 259.940 | 234048x | ppb | 10/31/2019, 11:30:07 AM |
| | Mn 257.610 | 4498.8 | ppb | |
| 10-393-01 MSD | Fe 259.940 | 206324x | ppb | 10/31/2019, 11:34:25 AM |
| | Mn 257.610 | 4402.5 | ppb | |
| BLK | Fe 259.940 | 142.52 | ppb | 10/31/2019, 11:38:44 AM |
| | Mn 257.610 | 0.915 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5265.7 | ppb | 10/31/2019, 11:43:03 AM |
| | Mn 257.610 | 1057.6 | ppb | |
| Cont Calib Blank | Fe 259.940 | 15.757 | ppb | 10/31/2019, 11:47:23 AM |
| | Mn 257.610 | 0.095 | ppb | |
| 10-393-02 | Fe 259.940 | 264974x | ppb | 10/31/2019, 11:53:50 AM |
| | Mn 257.610 | 3088.3 | ppb | |
| 10-393-03 | Fe 259.940 | 220305x | ppb | 10/31/2019, 11:58:10 AM |
| | Mn 257.610 | 8980.6 | ppb | |
| 10-393-07 | Fe 259.940 | 223201x | ppb | 10/31/2019, 12:02:30 PM |
| | Mn 257.610 | 4745.8 | ppb | |
| 10-393-08 | Fe 259.940 | 159686x | ppb | 10/31/2019, 12:06:48 PM |
| | Mn 257.610 | 8661.4 | ppb | |
| 10-393-09 | Fe 259.940 | 237942x | ppb | 10/31/2019, 12:11:07 PM |
| | Mn 257.610 | 4708.9 | ppb | |
| BLK | Fe 259.940 | 103.11 | ppb | 10/31/2019, 12:17:08 PM |
| | Mn 257.610 | 0.465 | ppb | |
| MB1031SH1 | Fe 259.940 | 29.382 | ppb | 10/31/2019, 12:21:27 PM |
| | Mn 257.610 | 2.868 | ppb | |
| SB1031SH1 | Fe 259.940 | 19642 | ppb | 10/31/2019, 12:25:44 PM |
| | Mn 257.610 | 541.80 | ppb | |
| 10-388-04a X 50 | Fe 259.940 | 8915.9 | ppb | 10/31/2019, 12:30:04 PM |
| | Mn 257.610 | 300.44 | ppb | |
| 10-388-04a DX 50 | Fe 259.940 | 8959.4 | ppb | 10/31/2019, 12:34:42 PM |
| | Mn 257.610 | 290.15 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5262.2 | ppb | 10/31/2019, 12:39:01 PM |
| | Mn 257.610 | 1048.7 | ppb | |
| Cont Calib Blank | Fe 259.940 | 22.575 | ppb | 10/31/2019, 12:43:21 PM |
| | Mn 257.610 | 0.648 | ppb | |
| 10-388-04a LX 50 | Fe 259.940 | 1803.9 | ppb | 10/31/2019, 12:51:06 PM |

P191031F1B. Mean Only Report 10/31/2019, 2:16:32 PM

| Sample | Label | Calc Conc. | Units | Date/Time |
|---|---|---|---|---|
| | Mn 257.610 | 59.920 | ppb | |
| 10-388-04a MSX 50 | Fe 259.940 | 8995.4 | ppb | 10/31/2019, 12:55:24 PM |
| | Mn 257.610 | 293.66 | ppb | |
| 10-388-04a MSDX 50 | Fe 259.940 | 8889.1 | ppb | 10/31/2019, 12:59:42 PM |
| | Mn 257.610 | 293.24 | ppb | |
| 10-388-01 X 50 | Fe 259.940 | 14926 | ppb | 10/31/2019, 1:03:59 PM |
| | Mn 257.610 | 462.64 | ppb | |
| 10-388-02 X 50 | Fe 259.940 | 14029 | ppb | 10/31/2019, 1:08:19 PM |
| | Mn 257.610 | 376.29 | ppb | |
| 10-388-03 X 50 | Fe 259.940 | 9821.5 | ppb | 10/31/2019, 1:12:40 PM |
| | Mn 257.610 | 655.26 | ppb | |
| 10-388-05 X 50 | Fe 259.940 | 10170 | ppb | 10/31/2019, 1:17:00 PM |
| | Mn 257.610 | 420.54 | ppb | |
| 10-388-06 X 50 | Fe 259.940 | 12644 | ppb | 10/31/2019, 1:21:18 PM |
| | Mn 257.610 | 406.20 | ppb | |
| 10-388-07 X 50 | Fe 259.940 | 15594 | ppb | 10/31/2019, 1:25:37 PM |
| | Mn 257.610 | 680.66 | ppb | |
| Cont Calib Verif | Fe 259.940 | 5197.8 | ppb | 10/31/2019, 1:31:08 PM |
| | Mn 257.610 | 1047.0 | ppb | |
| Cont Calib Blank | Fe 259.940 | 21.925 | ppb | 10/31/2019, 1:35:27 PM |
| | Mn 257.610 | 0.065uv | ppb | |

**Report Generated By CETAC QuickTrace**
**Analyst:** kmckinney
**Worksheet file:** C:\Program Files\QuickTrace\Worksheets\10 October 2019\Y191031S1.wsz
**Date Started:** 10/31/2019 8:32:30 AM
**Comment:**

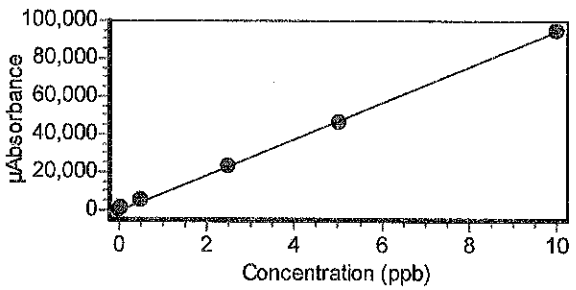
10/31/19
mm

# *Results*

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| Calibration Blank | STD | 10/31/19 09:43:19 am | 0.000 | -41 | 18.30 | |
| Standard 0.05 ppb | STD | 10/31/19 09:45:12 am | 0.050 | 495 | 0.93 | |
| Standard 0.5 ppb | STD | 10/31/19 09:47:04 am | 0.500 | 4927 | 1.90 | |
| Standard 2.5 ppb | STD | 10/31/19 09:48:58 am | 2.500 | 23021 | 2.01 | |
| Standard 5.0 ppb | STD | 10/31/19 09:50:52 am | 5.000 | 46536 | 1.60 | |
| Standard 10.0 ppb | STD | 10/31/19 09:52:46 am | 10.000 | 94938 | 1.56 | |

Calibration

Equation: A = -40.740 + 9451.061C
R2: 0.99982
SEE: 595.1412
Flags:




| | | | | | | |
|---|---|---|---|---|---|---|
| ICV | ICV | 10/31/19 09:54:42 am | 4.895 | 46221 | 1.91 | |
| % Recovery 97.90 | | | | | | |
| ICB | ICB | 10/31/19 09:56:33 am | -0.012 | -154 | 4.09 | |
| CCV | CCV | 10/31/19 09:58:27 am | 4.952 | 46760 | 2.22 | |
| % Recovery 99.04 | | | | | | |
| CCB | CCB | 10/31/19 10:00:19 am | -0.014 | -176 | 3.66 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| MB1031S1 | UNK | 10/31/19 10:02:10 am | 0.003 | -13 | 13.52 | |
| SB1031S1 | UNK | 10/31/19 10:04:02 am | 5.003 | 47241 | 2.33 | |
| 10-388-04a | UNK | 10/31/19 10:05:54 am | 2.309 | 21785 | 1.30 | |
| 10-388-04a DUP | UNK | 10/31/19 10:07:47 am | 1.791 | 16887 | 1.93 | |
| 10-388-04a L | UNK | 10/31/19 10:09:41 am | 0.458 | 4288 | 2.33 | |
| 10-388-04a MS | UNK | 10/31/19 10:11:35 am | 7.106 | 67117 | 1.51 | |
| 10-388-04a MSD | UNK | 10/31/19 10:13:29 am | 7.174 | 67760 | 1.28 | |
| 10-388-01 | UNK | 10/31/19 10:15:23 am | 1.067 | 10047 | 1.65 | |
| 10-388-02 | UNK | 10/31/19 10:17:14 am | 2.533 | 23898 | 1.79 | |
| 10-388-03 | UNK | 10/31/19 10:19:06 am | 0.511 | 4786 | 0.56 | |
| CCV | CCV | 10/31/19 10:21:00 am | 4.999 | 47203 | 1.72 | |
| % Recovery 99.98 | | | | | | |
| CCB | CCB | 10/31/19 10:22:52 am | -0.013 | -164 | 5.39 | |
| 10-388-05 | UNK | 10/31/19 10:24:44 am | 1.478 | 13932 | 0.71 | |
| 10-388-06 | UNK | 10/31/19 10:26:37 am | 1.859 | 17527 | 1.83 | |
| 10-388-07 | UNK | 10/31/19 10:28:30 am | 2.682 | 25307 | 0.89 | |
| CCV | CCV | 10/31/19 10:30:24 am | 5.049 | 47679 | 1.88 | |
| % Recovery 100.98 | | | | | | |
| CCB | CCB | 10/31/19 10:32:15 am | -0.019 | -218 | 1.57 | |

| Sample Name | Type | Date/Time | Conc (ppb) | µAbs | %RSD | Flags |
|---|---|---|---|---|---|---|
| CCV | CCV | 10/31/19 01:34:24 pm | 4.944 | 46689 | 1.80 | |
| % Recovery 98.89 | | | | | | |
| CCB | CCB | 10/31/19 01:36:16 pm | -0.017 | -199 | 1.62 | |
| 10-273-06a | UNK | 10/31/19 01:38:10 pm | 0.216 | 2001 | 2.17 | |
| CCV | CCV | 10/31/19 01:40:04 pm | 4.865 | 45935 | 2.04 | |
| % Recovery 97.29 | | | | | | |
| CCB | CCB | 10/31/19 01:41:55 pm | -0.016 | -188 | 2.79 | |
| 10-388-04a | UNK | 10/31/19 02:45:37 pm | 2.261 | 21330 | 1.64 | |
| 10-388-04a DUP | UNK | 10/31/19 02:55:02 pm | 1.911 | 18020 | 1.68 | |
| CCV | CCV | 10/31/19 02:56:55 pm | 5.187 | 48979 | 1.67 | |
| % Recovery 103.73 | | | | | | |
| CCB | CCB | 10/31/19 02:58:47 pm | -0.015 | -183 | 6.82 | |

# Dataset Report

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexION Data\DataSet\X191031B\
Report Date/Time: Thursday, October 31, 2019 13:02:51

10-31-19
KDM

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| | Blank | 10:12:29 Thu 31-O | Blank | C:\NexION Data\DataSet\X191031B\Blank.001 | |
| | Standard 2 | 10:15:40 Thu 31-O | Standard #2 | C:\NexION Data\DataSet\X191031B\Standard 2.002 | |
| | Standard 3 | 10:18:52 Thu 31-O | Standard #3 | C:\NexION Data\DataSet\X191031B\Standard 3.003 | |
| | Standard 5 | 10:22:04 Thu 31-O | Standard #5 | C:\NexION Data\DataSet\X191031B\Standard 5.004 | |
| | Standard 6 | 10:25:16 Thu 31-O | Standard #6 | C:\NexION Data\DataSet\X191031B\Standard 6.005 | |
| | Standard 7 | 10:28:27 Thu 31-O | Standard #7 | C:\NexION Data\DataSet\X191031B\Standard 7.006 | |
| | QC Std 1 | 10:32:29 Thu 31-O | QC Std #1 | C:\NexION Data\DataSet\X191031B\QC Std 1.007 | |
| | QC Std 2 | 10:36:30 Thu 31-O | QC Std #2 | C:\NexION Data\DataSet\X191031B\QC Std 2.008 | |
| | QC Std 3 | 10:39:42 Thu 31-O | QC Std #3 | C:\NexION Data\DataSet\X191031B\QC Std 3.009 | |
| | QC Std 4 | 10:43:44 Thu 31-O | QC Std #4 | C:\NexION Data\DataSet\X191031B\QC Std 4.010 | |
| | QC Std 6 | 10:47:45 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031B\QC Std 6.011 | |
| | QC Std 8 | 10:51:46 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031B\QC Std 8.012 | |
| | ICSA | 10:54:58 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\ICSA.013 | |
| | ICSAB | 10:58:59 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\ICSAB.014 | |
| | MB1030SM2 5X | 11:03:11 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\MB1030SM2 5X.015 | |
| | SB1030SM2 50X | 11:07:11 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\SB1030SM2 50X.016 | |
| | 10-388-04a 10X | 11:11:12 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04a 10X.017 | |
| | 10-388-04aD 10X | 11:15:12 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aD 10X.018 | |
| | 10-388-04aL 50X | 11:19:13 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aL 50X.019 | |
| | 10-388-04aMS 50X | 11:23:15 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aMS 50X.020 | |
| | 10-388-04aMSD 50X | 11:27:17 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aMSD 50X.021 | |
| | 10-388-04aPS 10X | 11:31:18 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aPS 10X.022 | |
| | QC Std 6 | 11:35:20 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031B\QC Std 6.023 | |
| | QC Std 8 | 11:39:21 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031B\QC Std 8.024 | |
| | 10-388-04a 50X | 11:43:46 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04a 50X.025 | |
| | 10-388-04aD 50X | 11:47:47 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aD 50X.026 | |
| | 10-388-04aL 250X | 11:51:48 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aL 250X.027 | |
| | 10-388-04aPS 50X | 11:55:49 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-04aPS 50X.028 | |
| | 10-388-01 10X | 11:59:50 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-01 10X.029 | |
| | 10-388-02 10X | 12:03:50 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-02 10X.030 | |
| | 10-388-03 10X | 12:07:51 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-03 10X.031 | |
| | 10-388-05 10X | 12:11:51 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-05 10X.032 | |
| | 10-388-06 10X | 12:15:52 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-06 10X.033 | |
| | 10-388-07 10X | 12:19:54 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-07 10X.034 | |
| | QC Std 6 | 12:23:56 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031B\QC Std 6.035 | |
| | QC Std 8 | 12:27:58 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031B\QC Std 8.036 | |
| | 10-388-01 25X | 12:32:02 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-01 25X.037 | |
| | 10-388-02 50X | 12:36:03 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-02 50X.038 | |
| | 10-388-03 25X | 12:40:05 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-03 25X.039 | |
| | 10-388-05 25X | 12:44:06 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-05 25X.040 | |
| | 10-388-06 25X | 12:48:07 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-06 25X.041 | |
| | 10-388-07 50X | 12:52:08 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031B\10-388-07 50X.042 | |
| | QC Std 6 | 12:56:09 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031B\QC Std 6.043 | |
| | QC Std 8 | 13:00:11 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031B\QC Std 8.044 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| As | 74.922 | Linear Thru Zero | 0.00 | 0.00 | 0.999896 |
| As-1 | 74.922 | Linear Thru Zero | 0.00 | 0.00 | 0.999853 |
| Se | 76.920 | Linear Thru Zero | 0.00 | 0.00 | 0.999940 |
| Se | 77.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999939 |
| Br | 78.918 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Se | 81.917 | Linear Thru Zero | 0.00 | 0.00 | 0.999783 |
| Kr | 82.914 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ba | 134.906 | Linear Thru Zero | 0.01 | 0.00 | 0.999808 |
| Ba | 136.905 | Linear Thru Zero | 0.01 | 0.00 | 0.999892 |
| Tb | 158.925 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ho | 164.930 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Pb | 207.977 | Linear Thru Zero | 0.09 | 0.00 | 0.999940 |
| Bi | 208.980 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Th | 232.038 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ge-1 | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| As-2 | 74.922 | Linear Thru Zero | 0.01 | 0.00 | 0.999739 |
| Y-1 | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh-1 | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| In-1 | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Daily Performance Report

**Sample ID: Daily Performance Check**
Sample Date/Time: Thursday, October 31, 2019 07:22:17
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\X191031A\Daily Performance Check.007
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD | Mode |
|---|---|---|---|---|---|---|---|
| | Be | 9.0 | 5840.9 | 5840.929 | 228.607 | 3.9 | Standard |
| | Mg | 24.0 | 32930.1 | 32930.075 | 1073.476 | 3.3 | Standard |
| | In | 114.9 | 47567.5 | 47567.548 | 827.508 | 1.7 | Standard |
| | U | 238.1 | 50021.5 | 50021.493 | 377.420 | 0.8 | Standard |
| ⌈ | CeO | 155.9 | 985.6 | 0.023 | 0.001 | 3.3 | Standard |
| \|> | Ce | 139.9 | 42383.5 | 42383.529 | 751.040 | 1.8 | Standard |
| ⌊ | Ce++ | 70.0 | 137.2 | 0.003 | 0.000 | 9.7 | Standard |
| | Bkgd | 220.0 | 0.0 | 0.000 | 0.000 | | Standard |

## Current Conditions File Data

| Current Value | Description |
|---|---|
| 1.00 | Nebulizer Gas Flow STD/KED [NEB] |
| 1.20 | Auxiliary Gas Flow |
| 16.00 | Plasma Gas Flow |
| -12.00 | Deflector Voltage |
| 1600.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1100.00 | Pulse Stage Voltage |
| 0.00 | Quadrupole Rod Offset STD [QRO] |
| -15.00 | Cell Rod Offset STD [CRO] |
| 11.00 | Discriminator Threshold |
| -2.00 | Cell Entrance/Exit Voltage STD |
| 0.00 | RPa |
| 0.45 | RPq |
| 1.00 | DRC Mode NEB |
| -8.00 | DRC Mode QRO |
| -2.00 | DRC Mode CRO |
| -14.00 | DRC Mode Cell Entrance/Exit Voltage |
| 0.60 | Cell Gas A |
| 0.00 | Cell Gas B |
| 375.00 | Axial Field Voltage |
| -13.00 | KED Mode CRO |
| -12.00 | KED Mode QRO |
| -6.00 | KED Mode Cell Entrance Voltage |
| -25.00 | KED Mode Cell Exit Voltage |
| 0.00 | KED Cell Gas A |
| 0.10 | KED Cell Gas B |
| 0.00 | KED RPa |
| 0.25 | KED RPq |

475.00 KED Mode Axial Field Voltage

# SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Start Time: 10/31/2019 7:22:16 AM
End Time: 10/31/2019 7:24:36 AM

Daily Performance Check - [Passed]  Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5840.93
Obtained Intensity (Mg 23.985): 32930.08
Obtained Intensity (In 114.904): 47567.55
Obtained Intensity (U 238.05): 50021.49
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=985.57 / 42383.53)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.003 (=137.20 / 42383.53)

# SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\Onsite daily manual.swz

Optimization Status

Start Time: 10/31/2019 7:22:16 AM

Daily Performance Check
Optimization Settings:
Method: Daily Performance.mth.
Intensity Criterion: Be 9.0122 > 2000
Intensity Criterion: Mg 23.985 > 15000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: U 238.05 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:
Initial Try
Obtained Intensity (Be 9.0122): 5840.93
Obtained Intensity (Mg 23.985): 32930.08
Obtained Intensity (In 114.904): 47567.55
Obtained Intensity (U 238.05): 50021.49
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=985.57 / 42383.53)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.003 (=137.20 / 42383.53)
[Passed] Optimum value(s): N/A

End Time: 10/31/2019 7:24:36 AM

# Instrument Mass Calibration Report

File Name: Default.tun
File Path: C:\NexION\Data\MassCal\Default.tun
Acq. Date/Time: 07:26:54 Thu 31-Oct-19

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Peak Width | Custom Res. |
|---|---|---|---|---|---|---|
| Li | 7.016 | 6.975 | 1206 | 2081 | 0.709 | |
| Mg | 23.985 | 24.025 | 4606 | 2083 | 0.703 | |
| In | 114.904 | 114.925 | 22782 | 2084 | 0.705 | |
| U | 238.050 | 238.025 | 47384 | 2080 | 0.708 | |

# Quantitative Analysis - Summary Report

## Sample ID: Blank

Sample Date/Time: Thursday, October 31, 2019 10:12:29
Report Date/Time: Thursday, October 31, 2019 10:14:09
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 131239.2 | 2.0 | | | | ug/L | | Standard |
| | As | 75 | 802.3 | 4.0 | | | | ug/L | | Standard |
| | As-1 | 75 | 20.4 | 32.6 | | | | ug/L | | Standard |
| | Se | 77 | 15.3 | 15.1 | | | | ug/L | | Standard |
| | Se | 78 | 928.4 | 4.3 | | | | ug/L | | Standard |
| | Br | 79 | 33.0 | 10.5 | | | | ug/L | | Standard |
| | Se | 82 | 15.7 | 25.8 | | | | ug/L | | Standard |
| | Kr | 83 | 8.3 | 25.0 | | | | ug/L | | Standard |
| | Y | 89 | 240891.7 | 1.6 | | | | ug/L | | Standard |
| | Rh | 103 | 215037.3 | 3.1 | | | | ug/L | | Standard |
| > | In | 115 | 447308.3 | 0.2 | | | | ug/L | | Standard |
| | Ba | 135 | 43.3 | 15.4 | | | | ug/L | | Standard |
| | Ba | 137 | 69.7 | 13.6 | | | | ug/L | | Standard |
| > | Tb | 159 | 467481.2 | 1.0 | | | | ug/L | | Standard |
| | Ho | 165 | 489100.4 | 1.1 | | | | ug/L | | Standard |
| | Pb | 208 | 466.0 | 4.5 | | | | ug/L | | Standard |
| | Bi | 209 | 367176.6 | 0.6 | | | | ug/L | | Standard |
| | Th | 232 | 525333.4 | 0.8 | | | | ug/L | | Standard |
| > | Ge-1 | 72 | 6264.4 | 0.5 | | | | ug/L | | KED |
| | As-2 | 75 | 1.3 | 43.3 | | | | ug/L | | KED |
| | Y-1 | 89 | 10181.3 | 1.4 | | | | ug/L | | KED |
| | Rh-1 | 103 | 75249.3 | 1.0 | | | | ug/L | | KED |
| | In-1 | 115 | 6581.5 | 1.0 | | | | ug/L | | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Thursday, October 31, 2019 10:15:40
Report Date/Time: Thursday, October 31, 2019 10:17:20
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 128671.3 | 1.9 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1052.8 | 4.1 | 0.5000 | 0.064 | 12.7 | ug/L | 802 | Standard |
| | As-1 | 75 | 287.1 | 6.7 | 0.5000 | 0.044 | 8.9 | ug/L | 20 | Standard |
| | Se | 77 | 24.3 | 21.1 | 0.5000 | 0.291 | 58.1 | ug/L | 15 | Standard |
| | Se | 78 | 1020.7 | 4.1 | | | | ug/L | 928 | Standard |
| | Br | 79 | 30.7 | 16.4 | | | | ug/L | 33 | Standard |
| | Se | 82 | 56.3 | 10.4 | 0.5000 | 0.079 | 15.8 | ug/L | 16 | Standard |
| | Kr | 83 | 13.0 | 30.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 238566.9 | 0.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 208198.7 | 5.4 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 427992.7 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 1298.1 | 3.7 | 0.5000 | 0.014 | 2.9 | ug/L | 43 | Standard |
| | Ba | 137 | 2106.2 | 2.0 | 0.5000 | 0.009 | 1.8 | ug/L | 70 | Standard |
| > | Tb | 159 | 444783.7 | 0.9 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 475109.6 | 0.2 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 20667.9 | 1.2 | 0.5000 | 0.011 | 2.2 | ug/L | 466 | Standard |
| | Bi | 209 | 350417.0 | 0.5 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 508242.3 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6149.0 | 1.7 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 21.3 | 19.5 | 0.5000 | 0.100 | 20.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 9829.4 | 0.8 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73410.2 | 1.6 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6353.1 | 1.9 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 3

Sample Date/Time: Thursday, October 31, 2019 10:18:52
Report Date/Time: Thursday, October 31, 2019 10:20:32
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 133184.3 | 0.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1721.9 | 2.9 | 1.9752 | 0.119 | 6.0 | ug/L | 802 | Standard |
| | As-1 | 75 | 1100.1 | 8.1 | 1.9970 | 0.170 | 8.5 | ug/L | 20 | Standard |
| | Se | 77 | 79.3 | 12.7 | 2.0473 | 0.318 | 15.5 | ug/L | 15 | Standard |
| | Se | 78 | 1208.1 | 1.5 | 2.0000 | 0.135 | 6.8 | ug/L | 928 | Standard |
| | Br | 79 | 35.0 | 7.6 | | | | ug/L | 33 | Standard |
| | Se | 82 | 185.0 | 8.0 | 1.9995 | 0.180 | 9.0 | ug/L | 16 | Standard |
| | Kr | 83 | 7.3 | 31.5 | | | | ug/L | 8 | Standard |
| | Y | 89 | 246904.7 | 2.2 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 216106.1 | 2.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 437651.9 | 1.5 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 5072.2 | 0.9 | 1.9976 | 0.037 | 1.9 | ug/L | 43 | Standard |
| | Ba | 137 | 8415.8 | 3.5 | 2.0002 | 0.051 | 2.6 | ug/L | 70 | Standard |
| > | Tb | 159 | 454109.0 | 1.2 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 471607.4 | 1.4 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 81088.6 | 0.5 | 1.9971 | 0.021 | 1.0 | ug/L | 466 | Standard |
| | Bi | 209 | 356253.1 | 0.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 512453.2 | 0.6 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6255.7 | 0.8 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 81.7 | 6.0 | 1.9984 | 0.137 | 6.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 10008.2 | 1.8 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73753.2 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6512.8 | 2.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**
Sample Date/Time: Thursday, October 31, 2019 10:22:04
Report Date/Time: Thursday, October 31, 2019 10:23:44
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 133459.6 | 1.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 9146.3 | 1.1 | **19.9778** | 0.337 | 1.7 | ug/L | 802 | Standard |
| | As-1 | 75 | 10666.9 | 1.5 | **19.9963** | 0.145 | 0.7 | ug/L | 20 | Standard |
| | Se | 77 | 672.0 | 3.0 | **20.0103** | 0.362 | 1.8 | ug/L | 15 | Standard |
| | Se | 78 | 3083.3 | 1.2 | **19.9515** | 0.149 | 0.7 | ug/L | 928 | Standard |
| | Br | 79 | 39.0 | 5.1 | | | | ug/L | 33 | Standard |
| | Se | 82 | 1765.1 | 3.5 | **20.0065** | 0.445 | 2.2 | ug/L | 16 | Standard |
| | Kr | 83 | 10.3 | 14.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 250846.6 | 4.4 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 219273.3 | 3.9 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 433944.9 | 1.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 47953.4 | 0.9 | **19.9926** | 0.242 | 1.2 | ug/L | 43 | Standard |
| | Ba | 137 | 81264.8 | 0.3 | **19.9975** | 0.252 | 1.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 447121.2 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 467228.6 | 1.7 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 774739.1 | 1.1 | **19.9943** | 0.070 | 0.4 | ug/L | 466 | Standard |
| | Bi | 209 | 350902.0 | 0.3 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 505383.8 | 0.4 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6235.0 | 3.0 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 687.7 | 0.9 | **19.9650** | 0.796 | 4.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 10293.4 | 1.5 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 72917.0 | 0.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6521.1 | 1.9 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Thursday, October 31, 2019 10:25:16
Report Date/Time: Thursday, October 31, 2019 10:26:56
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 135466.5 | 2.2 | | | | ug/L | 131239 | Standard |
| | As | 75 | 18282.7 | 0.7 | **40.2449** | 0.673 | 1.7 | ug/L | 802 | Standard |
| | As-1 | 75 | 22097.5 | 1.6 | **40.1695** | 0.255 | 0.6 | ug/L | 20 | Standard |
| | Se | 77 | 1327.4 | 3.8 | **39.8746** | 0.669 | 1.7 | ug/L | 15 | Standard |
| | Se | 78 | 5313.7 | 2.2 | **40.0040** | 0.640 | 1.6 | ug/L | 928 | Standard |
| | Br | 79 | 39.0 | 25.3 | | | | ug/L | 33 | Standard |
| | Se | 82 | 3538.8 | 4.0 | **39.9376** | 0.875 | 2.2 | ug/L | 16 | Standard |
| | Kr | 83 | 16.7 | 57.0 | | | | ug/L | 8 | Standard |
| | Y | 89 | 251142.8 | 2.3 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 221553.2 | 4.6 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 440660.8 | 1.3 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 96712.0 | 1.8 | **39.8892** | 0.395 | 1.0 | ug/L | 43 | Standard |
| | Ba | 137 | 164349.1 | 1.3 | **39.9136** | 0.181 | 0.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 457046.5 | 0.9 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 474001.0 | 0.8 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1554302.1 | 0.5 | **39.8473** | 0.439 | 1.1 | ug/L | 466 | Standard |
| | Bi | 209 | 347317.4 | 0.4 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 507172.3 | 0.5 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6418.4 | 0.1 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1409.1 | 1.4 | **39.9484** | 0.551 | 1.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 10324.4 | 0.8 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 74912.6 | 1.1 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6718.6 | 1.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: Standard 7

Sample Date/Time: Thursday, October 31, 2019 10:28:27
Report Date/Time: Thursday, October 31, 2019 10:30:07
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 134092.1 | 1.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 45349.3 | 1.6 | **100.5994** | 1.197 | 1.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 56977.2 | 1.1 | **100.7539** | 0.801 | 0.8 | ug/L | 20 | Standard |
| | Se | 77 | 3364.7 | 1.1 | **100.4718** | 1.337 | 1.3 | ug/L | 15 | Standard |
| | Se | 78 | 12025.7 | 2.5 | **100.4524** | 1.822 | 1.8 | ug/L | 928 | Standard |
| | Br | 79 | 40.7 | 20.0 | | | | ug/L | 33 | Standard |
| | Se | 82 | 9254.7 | 1.0 | **100.9302** | 0.322 | 0.3 | ug/L | 16 | Standard |
| | Kr | 83 | 19.0 | 9.1 | | | | ug/L | 8 | Standard |
| | Y | 89 | 261775.9 | 1.9 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 225235.5 | 2.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 432930.3 | 0.4 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 250140.0 | 0.7 | **100.8706** | 1.826 | 1.8 | ug/L | 43 | Standard |
| | Ba | 137 | 419222.8 | 1.2 | **100.6547** | 1.811 | 1.8 | ug/L | 70 | Standard |
| > | Tb | 159 | 447374.1 | 1.3 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 469715.1 | 1.6 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 3927149.2 | 0.8 | **100.4686** | 0.747 | 0.7 | ug/L | 466 | Standard |
| | Bi | 209 | 340014.4 | 0.2 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 499105.5 | 1.2 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6157.3 | 1.4 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 3598.1 | 2.8 | **101.0140** | 2.225 | 2.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 10154.9 | 1.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73985.4 | 1.2 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6532.7 | 2.0 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 1

Sample Date/Time: Thursday, October 31, 2019 10:32:29
Report Date/Time: Thursday, October 31, 2019 10:34:09
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 143315.0 | 0.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 25032.5 | 1.5 | **51.0648** | 1.133 | 2.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 30992.9 | 1.5 | **51.2625** | 1.044 | 2.0 | ug/L | 20 | Standard |
| | Se | 77 | 1818.1 | 3.1 | **50.5600** | 1.582 | 3.1 | ug/L | 15 | Standard |
| | Se | 78 | 6968.4 | 2.9 | **50.5353** | 2.090 | 4.1 | ug/L | 928 | Standard |
| | Br | 79 | 39.0 | 17.8 | | | | ug/L | 33 | Standard |
| | Se | 82 | 5039.2 | 2.1 | **51.3380** | 1.333 | 2.6 | ug/L | 16 | Standard |
| | Kr | 83 | 19.3 | 20.9 | | | | ug/L | 8 | Standard |
| | Y | 89 | 271023.8 | 2.9 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 243702.6 | 1.9 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 459050.6 | 0.7 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 134694.7 | 1.2 | **51.1220** | 0.789 | 1.5 | ug/L | 43 | Standard |
| | Ba | 137 | 227254.0 | 0.6 | **51.3599** | 0.935 | 1.8 | ug/L | 70 | Standard |
| > | Tb | 159 | 475227.4 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 499396.2 | 1.5 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 2124730.1 | 0.5 | **51.1672** | 0.478 | 0.9 | ug/L | 466 | Standard |
| | Bi | 209 | 365592.1 | 0.8 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 535682.6 | 0.2 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6462.8 | 1.1 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1910.1 | 3.4 | **51.0678** | 1.321 | 2.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 10750.4 | 1.3 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 77055.9 | 0.6 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6866.9 | 1.9 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 109.201 |
| | 75 | As | 102.130 | |
| | 75 | As-1 | 102.525 | |
| | 77 | Se | 101.120 | |
| | 78 | Se | 101.071 | |
| | 79 | Br | | |
| | 82 | Se | 102.676 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 102.625 |
| | 135 | Ba | 102.244 | |
| | 137 | Ba | 102.720 | |
| > | 159 | Tb | | 101.657 |
| | 165 | Ho | | |
| | 208 | Pb | 102.334 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 103.167 |
| | 75As-2 | 102.136 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

**Sample ID: QC Std 1**
Report Date/Time: Thursday, October 31, 2019 10:34:09

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 2

Sample Date/Time: Thursday, October 31, 2019 10:36:30
Report Date/Time: Thursday, October 31, 2019 10:38:10
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 140998.5 | 1.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 920.1 | 2.8 | **0.1249** | 0.043 | 34.3 | ug/L | 802 | Standard |
| | As-1 | 75 | 38.6 | 58.1 | **0.0283** | 0.038 | 134.4 | ug/L | 20 | Standard |
| | Se | 77 | 12.3 | 9.4 | **-0.1184** | 0.028 | 24.0 | ug/L | 15 | Standard |
| | Se | 78 | 1059.4 | 2.7 | **0.5341** | 0.158 | 29.6 | ug/L | 928 | Standard |
| | Br | 79 | 39.3 | 14.0 | | | | ug/L | 33 | Standard |
| | Se | 82 | 22.3 | 31.4 | **0.0577** | 0.075 | 129.4 | ug/L | 16 | Standard |
| | Kr | 83 | 13.7 | 30.5 | | | | ug/L | 8 | Standard |
| | Y | 89 | 284225.3 | 3.0 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 244004.2 | 2.2 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 454451.3 | 0.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 60.0 | 9.3 | **0.0065** | 0.002 | 36.4 | ug/L | 43 | Standard |
| | Ba | 137 | 68.3 | 13.3 | **-0.0003** | 0.002 | 722.1 | ug/L | 70 | Standard |
| > | Tb | 159 | 465922.4 | 1.2 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 485523.8 | 0.8 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 565.3 | 2.3 | **0.0025** | 0.000 | 12.2 | ug/L | 466 | Standard |
| | Bi | 209 | 357168.9 | 1.2 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 515586.9 | 0.5 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6429.1 | 1.2 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1.7 | 91.7 | **0.0080** | 0.041 | 514.9 | ug/L | 1 | KED |
| | Y-1 | 89 | 10506.5 | 1.5 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 75358.9 | 0.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6950.6 | 2.5 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 107.436 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 101.597 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.667 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 102.630 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 3**

Sample Date/Time: Thursday, October 31, 2019 10:39:42
Report Date/Time: Thursday, October 31, 2019 10:41:22
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 136693.4 | 2.2 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1828.5 | 1.5 | **2.2016** | 0.109 | 5.0 | ug/L | 802 | Standard |
| | As-1 | 75 | 1189.9 | 6.2 | **2.0301** | 0.168 | 8.3 | ug/L | 20 | Standard |
| | Se | 77 | 80.3 | 9.4 | **1.8959** | 0.248 | 13.1 | ug/L | 15 | Standard |
| | Se | 78 | 1306.1 | 4.4 | **3.0133** | 0.270 | 9.0 | ug/L | 928 | Standard |
| | Br | 79 | 34.7 | 7.3 | | | | ug/L | 33 | Standard |
| | Se | 82 | 214.0 | 4.5 | **2.1202** | 0.140 | 6.6 | ug/L | 16 | Standard |
| | Kr | 83 | 11.7 | 4.9 | | | | ug/L | 8 | Standard |
| | Y | 89 | 274847.3 | 3.0 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 240771.6 | 3.8 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 436355.3 | 0.5 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 5002.5 | 1.2 | **2.0097** | 0.011 | 0.5 | ug/L | 43 | Standard |
| | Ba | 137 | 8402.5 | 2.2 | **2.0108** | 0.054 | 2.7 | ug/L | 70 | Standard |
| > | Tb | 159 | 445364.2 | 1.1 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 462955.7 | 1.3 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 79356.2 | 1.3 | **2.0283** | 0.041 | 2.0 | ug/L | 466 | Standard |
| | Bi | 209 | 346404.0 | 0.7 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 500814.5 | 1.0 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6170.0 | 1.6 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 62.3 | 16.4 | **1.7084** | 0.266 | 15.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 10287.7 | 1.2 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73231.9 | 2.1 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6778.6 | 1.6 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 104.156 |
| | 75 | As | 110.080 | |
| | 75 | As-1 | 101.507 | |
| | 77 | Se | 94.796 | |
| | 78 | Se | 150.667 | |
| | 79 | Br | | |
| | 82 | Se | 106.009 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 97.551 |
| | 135 | Ba | 100.486 | |
| | 137 | Ba | 100.541 | |
| > | 159 | Tb | | 95.269 |
| | 165 | Ho | | |
| | 208 | Pb | 101.414 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 98.493 |
| | 75As-2 | 85.418 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 4**

Sample Date/Time: Thursday, October 31, 2019 10:43:44
Report Date/Time: Thursday, October 31, 2019 10:45:24
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 138627.7 | 2.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1157.1 | 1.5 | **0.6784** | 0.103 | 15.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 304.6 | 6.5 | **0.4843** | 0.032 | 6.6 | ug/L | 20 | Standard |
| | Se | 77 | 36.0 | 22.0 | **0.5766** | 0.240 | 41.5 | ug/L | 15 | Standard |
| | Se | 78 | 1142.7 | 2.4 | **1.4306** | 0.508 | 35.5 | ug/L | 928 | Standard |
| | Br | 79 | 42.0 | 21.8 | | | | ug/L | 33 | Standard |
| | Se | 82 | 65.0 | 4.1 | **0.5124** | 0.037 | 7.3 | ug/L | 16 | Standard |
| | Kr | 83 | 14.0 | 18.9 | | | | ug/L | 8 | Standard |
| | Y | 89 | 277436.9 | 2.2 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 242860.7 | 2.8 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 434380.6 | 0.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 1305.1 | 5.6 | **0.5122** | 0.034 | 6.7 | ug/L | 43 | Standard |
| | Ba | 137 | 2157.8 | 2.0 | **0.5045** | 0.009 | 1.7 | ug/L | 70 | Standard |
| > | Tb | 159 | 445326.9 | 0.9 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 467036.2 | 1.4 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 20387.4 | 1.0 | **0.5126** | 0.001 | 0.2 | ug/L | 466 | Standard |
| | Bi | 209 | 343148.2 | 0.7 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 499151.0 | 1.8 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6168.3 | 0.4 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 17.0 | 23.5 | **0.4398** | 0.112 | 25.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 10398.8 | 1.1 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73628.6 | 1.2 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6727.2 | 0.6 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 105.630 |
| | 75 | As | 135.679 | |
| | 75 | As-1 | 96.860 | |
| | 77 | Se | 115.325 | |
| | 78 | Se | 286.115 | |
| | 79 | Br | | |
| | 82 | Se | 102.489 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 97.110 |
| | 135 | Ba | 102.437 | |
| | 137 | Ba | 100.896 | |
| > | 159 | Tb | | 95.261 |
| | 165 | Ho | | |
| | 208 | Pb | 102.518 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 98.467 |
| | 75As-2 | 87.969 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

**Sample ID: QC Std 4**
Report Date/Time: Thursday, October 31, 2019 10:45:24

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Thursday, October 31, 2019 10:47:45
Report Date/Time: Thursday, October 31, 2019 10:49:25
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | **Ge** | 72 | 141249.2 | 2.7 | | | | ug/L | 131239 | Standard |
| \| | **As** | 75 | 18902.6 | 1.0 | **38.7006** | 0.746 | 1.9 | ug/L | 802 | Standard |
| \| | **As-1** | 75 | 22967.5 | 1.6 | **38.5407** | 0.558 | 1.4 | ug/L | 20 | Standard |
| \| | **Se** | 77 | 1404.7 | 3.6 | **39.5376** | 1.166 | 2.9 | ug/L | 15 | Standard |
| \| | **Se** | 78 | 5760.2 | 2.3 | **41.0069** | 1.431 | 3.5 | ug/L | 928 | Standard |
| \| | **Br** | 79 | 40.3 | 11.5 | | | | ug/L | 33 | Standard |
| ⌊ | **Se** | 82 | 3806.8 | 3.0 | **39.3098** | 0.855 | 2.2 | ug/L | 16 | Standard |
| | **Kr** | 83 | 19.7 | 12.8 | | | | ug/L | 8 | Standard |
| | **Y** | 89 | 273563.6 | 1.7 | | | | ug/L | 240892 | Standard |
| ⌈ | **Rh** | 103 | 241438.7 | 2.0 | | | | ug/L | 215037 | Standard |
| ⌊> | **In** | 115 | 433123.7 | 0.2 | | | | ug/L | 447308 | Standard |
| ⌈ | **Ba** | 135 | 97473.5 | 1.6 | **39.0813** | 0.732 | 1.9 | ug/L | 43 | Standard |
| \| | **Ba** | 137 | 163418.1 | 0.5 | **39.0129** | 0.417 | 1.1 | ug/L | 70 | Standard |
| \|> | **Tb** | 159 | 449804.5 | 1.1 | | | | ug/L | 467481 | Standard |
| \| | **Ho** | 165 | 467513.3 | 1.0 | | | | ug/L | 489100 | Standard |
| \| | **Pb** | 208 | 1536016.9 | 1.0 | **39.0775** | 0.552 | 1.4 | ug/L | 466 | Standard |
| \| | **Bi** | 209 | 345224.2 | 1.1 | | | | ug/L | 367177 | Standard |
| ⌊ | **Th** | 232 | 502927.9 | 1.0 | | | | ug/L | 525333 | Standard |
| ⌈> | **Ge-1** | 72 | 6235.0 | 1.0 | | | | ug/L | 6264 | KED |
| ⌊ | **As-2** | 75 | 1398.7 | 2.4 | **38.7626** | 1.133 | 2.9 | ug/L | 1 | KED |
| | **Y-1** | 89 | 10364.4 | 1.4 | | | | ug/L | 10181 | KED |
| | **Rh-1** | 103 | 72001.4 | 1.9 | | | | ug/L | 75249 | KED |
| | **In-1** | 115 | 6605.8 | 4.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| ⌈> | 72Ge | | 107.627 |
| \| | 75As | 96.751 | |
| \| | 75As-1 | 96.352 | |
| \| | 77Se | 98.844 | |
| \| | 78Se | 102.517 | |
| \| | 79Br | | |
| ⌊ | 82Se | 98.275 | |
| | 83Kr | | |
| | 89Y | | |
| ⌈ | 103Rh | | |
| ⌊> | 115In | | 96.829 |
| ⌈ | 135Ba | 97.703 | |
| \| | 137Ba | 97.532 | |
| \|> | 159Tb | | 96.219 |
| \| | 165Ho | | |
| \| | 208Pb | 97.694 | |
| \| | 209Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 99.532 |
| | 75As-2 | 96.907 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

**Sample ID: QC Std 6**
Report Date/Time: Thursday, October 31, 2019 10:49:25

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Thursday, October 31, 2019 10:51:46
Report Date/Time: Thursday, October 31, 2019 10:53:26
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 146868.7 | 2.4 | | | | ug/L | 131239 | Standard |
| | As | 75 | 983.1 | 0.8 | **0.1767** | 0.051 | 29.0 | ug/L | 802 | Standard |
| | As-1 | 75 | 19.1 | 86.7 | **-0.0063** | 0.026 | 421.3 | ug/L | 20 | Standard |
| | Se | 77 | 16.0 | 10.8 | **-0.0308** | 0.059 | 190.4 | ug/L | 15 | Standard |
| | Se | 78 | 1137.4 | 0.9 | **0.8183** | 0.203 | 24.8 | ug/L | 928 | Standard |
| | Br | 79 | 42.3 | 27.6 | | | | ug/L | 33 | Standard |
| | Se | 82 | 16.7 | 48.5 | **-0.0097** | 0.078 | 807.2 | ug/L | 16 | Standard |
| | Kr | 83 | 14.7 | 28.4 | | | | ug/L | 8 | Standard |
| | Y | 89 | 290434.5 | 3.4 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 250780.7 | 3.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 449930.9 | 0.0 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 55.7 | 12.0 | **0.0051** | 0.003 | 55.6 | ug/L | 43 | Standard |
| | Ba | 137 | 61.7 | 15.0 | **-0.0016** | 0.002 | 125.6 | ug/L | 70 | Standard |
| > | Tb | 159 | 460476.7 | 1.2 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 479354.0 | 1.7 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 494.7 | 2.0 | **0.0009** | 0.000 | 44.4 | ug/L | 466 | Standard |
| | Bi | 209 | 357509.2 | 0.2 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 518535.8 | 0.4 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6365.4 | 0.4 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1.0 | 0.0 | **-0.0096** | 0.000 | 1.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 10634.3 | 1.5 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 76131.0 | 1.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7039.1 | 0.7 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 111.909 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 100.586 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 98.502 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 101.613 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: ICSA**

Sample Date/Time: Thursday, October 31, 2019 10:54:58
Report Date/Time: Thursday, October 31, 2019 10:56:37
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 130703.9 | 0.7 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1030.0 | 12.5 | **0.5344** | 0.285 | 53.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 57.1 | 162.9 | **0.0664** | 0.168 | 252.7 | ug/L | 20 | Standard |
| | Se | 77 | 188.3 | 7.7 | **5.3257** | 0.438 | 8.2 | ug/L | 15 | Standard |
| | Se | 78 | 1184.7 | 7.5 | **2.4170** | 0.749 | 31.0 | ug/L | 928 | Standard |
| | Br | 79 | 552.3 | 4.2 | | | | ug/L | 33 | Standard |
| | Se | 82 | 30.3 | 18.2 | **0.1648** | 0.060 | 36.1 | ug/L | 16 | Standard |
| | Kr | 83 | 62.7 | 17.2 | | | | ug/L | 8 | Standard |
| | Y | 89 | 238027.9 | 1.5 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 189095.3 | 2.9 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 391214.2 | 0.5 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 62.3 | 12.0 | **0.0079** | 0.003 | 34.0 | ug/L | 43 | Standard |
| | Ba | 137 | 84.3 | 5.3 | **0.0038** | 0.001 | 25.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 456593.2 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 453602.1 | 1.1 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1782.4 | 2.7 | **0.0333** | 0.002 | 4.8 | ug/L | 466 | Standard |
| | Bi | 209 | 294462.8 | 1.1 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 481656.3 | 0.6 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 5579.4 | 1.3 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 3.0 | 33.3 | **0.0563** | 0.032 | 56.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 9734.6 | 1.3 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 61381.6 | 0.9 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 5981.8 | 3.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 99.592 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 87.460 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 97.671 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 89.066 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSAB

Sample Date/Time: Thursday, October 31, 2019 10:58:59
Report Date/Time: Thursday, October 31, 2019 11:00:38
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 132745.9 | 0.5 | | | | ug/L | 131239 | Standard |
| | As | 75 | 19437.9 | 1.2 | **42.5068** | 0.586 | 1.4 | ug/L | 802 | Standard |
| | As-1 | 75 | 22617.5 | 0.8 | **40.3784** | 0.472 | 1.2 | ug/L | 20 | Standard |
| | Se | 77 | 1600.1 | 3.7 | **48.0184** | 1.864 | 3.9 | ug/L | 15 | Standard |
| | Se | 78 | 5813.5 | 1.9 | **44.6581** | 1.210 | 2.7 | ug/L | 928 | Standard |
| | Br | 79 | 795.7 | 3.4 | | | | ug/L | 33 | Standard |
| | Se | 82 | 3458.1 | 2.6 | **37.9893** | 1.138 | 3.0 | ug/L | 16 | Standard |
| | Kr | 83 | 70.3 | 17.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 248420.5 | 3.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 197369.2 | 3.6 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 397111.6 | 0.3 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 96328.0 | 0.8 | **37.2142** | 0.610 | 1.6 | ug/L | 43 | Standard |
| | Ba | 137 | 164655.8 | 0.2 | **37.8746** | 0.371 | 1.0 | ug/L | 70 | Standard |
| > | Tb | 159 | 466817.9 | 0.8 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 472426.5 | 0.8 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1416269.8 | 0.3 | **34.7152** | 0.207 | 0.6 | ug/L | 466 | Standard |
| | Bi | 209 | 298008.4 | 0.8 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 484002.7 | 0.7 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 5651.1 | 1.6 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1367.4 | 3.2 | **41.8288** | 2.001 | 4.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 9908.1 | 1.0 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 65603.6 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6301.4 | 1.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 101.148 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 88.778 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 99.858 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 90.210 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

**Sample ID: ICSAB**
Report Date/Time: Thursday, October 31, 2019 11:00:38

# Quantitative Analysis - Summary Report

## Sample ID: MB1030SM2 5X

Sample Date/Time: Thursday, October 31, 2019 11:03:11
Report Date/Time: Thursday, October 31, 2019 11:04:50
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 153630.5 | 1.5 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1026.4 | 3.5 | **0.1717** | 0.042 | 24.5 | ug/L | 802 | Standard |
| | As-1 | 75 | 37.5 | 23.3 | **0.0210** | 0.014 | 65.4 | ug/L | 20 | Standard |
| | Se | 77 | 15.3 | 32.2 | **-0.0690** | 0.127 | 183.4 | ug/L | 15 | Standard |
| | Se | 78 | 1175.7 | 4.2 | **0.7017** | 0.253 | 36.1 | ug/L | 928 | Standard |
| | Br | 79 | 146.0 | 3.8 | | | | ug/L | 33 | Standard |
| | Se | 82 | 20.3 | 10.2 | **0.0189** | 0.017 | 92.2 | ug/L | 16 | Standard |
| | Kr | 83 | 16.3 | 24.7 | | | | ug/L | 8 | Standard |
| | Y | 89 | 277398.8 | 2.1 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 238997.2 | 3.5 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 454713.6 | 0.3 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 466.7 | 8.9 | **0.1651** | 0.015 | 9.3 | ug/L | 43 | Standard |
| | Ba | 137 | 757.0 | 2.2 | **0.1597** | 0.004 | 2.8 | ug/L | 70 | Standard |
| > | Tb | 159 | 462832.8 | 0.6 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 482158.4 | 1.7 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1645.4 | 2.6 | **0.0293** | 0.001 | 3.0 | ug/L | 466 | Standard |
| | Bi | 209 | 363473.5 | 1.0 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 520790.1 | 0.6 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6651.5 | 1.9 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 3.0 | 57.7 | **0.0411** | 0.045 | 109.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 11128.0 | 1.9 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 77129.0 | 1.8 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7206.4 | 1.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.061 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 101.656 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 99.006 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 106.181 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: SB1030SM2 50X

Sample Date/Time: Thursday, October 31, 2019 11:07:11
Report Date/Time: Thursday, October 31, 2019 11:08:51
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 153171.2 | 1.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 19734.3 | 2.1 | **37.1746** | 0.381 | 1.0 | ug/L | 802 | Standard |
| | As-1 | 75 | 23944.3 | 1.8 | **37.0448** | 0.685 | 1.8 | ug/L | 20 | Standard |
| | Se | 77 | 1442.7 | 3.1 | **37.4231** | 1.319 | 3.5 | ug/L | 15 | Standard |
| | Se | 78 | 6142.3 | 5.0 | **40.1493** | 1.876 | 4.7 | ug/L | 928 | Standard |
| | Br | 79 | 58.3 | 13.1 | | | | ug/L | 33 | Standard |
| | Se | 82 | 4007.6 | 2.0 | **38.1568** | 0.920 | 2.4 | ug/L | 16 | Standard |
| | Kr | 83 | 18.0 | 24.2 | | | | ug/L | 8 | Standard |
| | Y | 89 | 293293.2 | 3.0 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 251243.5 | 1.8 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 454875.3 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 98435.3 | 1.2 | **37.5936** | 0.111 | 0.3 | ug/L | 43 | Standard |
| | Ba | 137 | 167151.6 | 0.6 | **38.0129** | 0.370 | 1.0 | ug/L | 70 | Standard |
| > | Tb | 159 | 472184.6 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 489443.8 | 0.7 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 3850598.0 | 0.9 | **93.3330** | 0.689 | 0.7 | ug/L | 466 | Standard |
| | Bi | 209 | 348894.8 | 2.0 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 508049.1 | 1.3 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6780.3 | 2.3 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1457.7 | 2.8 | **37.1399** | 0.283 | 0.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 11331.2 | 1.6 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 79619.9 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7424.4 | 1.2 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 116.711 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 101.692 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 101.006 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 108.236 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04a 10X

Sample Date/Time: Thursday, October 31, 2019 11:11:12
Report Date/Time: Thursday, October 31, 2019 11:12:51
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 148102.7 | 2.2 | | | | ug/L | 131239 | Standard |
| | As | 75 | 18335.1 | 0.5 | **35.6602** | 0.644 | 1.8 | ug/L | 802 | Standard |
| | As-1 | 75 | 17572.1 | 0.2 | **28.1140** | 0.549 | 2.0 | ug/L | 20 | Standard |
| | Se | 77 | 75.0 | 10.4 | **1.5701** | 0.250 | 15.9 | ug/L | 15 | Standard |
| | Se | 78 | 1168.4 | 2.8 | **0.9910** | 0.134 | 13.5 | ug/L | 928 | Standard |
| | Br | 79 | 626.7 | 2.8 | | | | ug/L | 33 | Standard |
| | Se | 82 | 111.7 | 13.9 | **0.9312** | 0.170 | 18.2 | ug/L | 16 | Standard |
| | Kr | 83 | 156.3 | 12.9 | | | | ug/L | 8 | Standard |
| | Y | 89 | 496786.4 | 2.0 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 196804.4 | 1.0 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 436521.5 | 0.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 679105.0 | 0.6 | **217.1628** | 0.873 | 0.4 | ug/L | 43 | Standard |
| | Ba | 137 | 1157052.4 | 1.0 | **220.2995** | 1.010 | 0.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 564136.5 | 0.8 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 559372.2 | 2.1 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 549588.0 | 0.3 | **11.1396** | 0.051 | 0.5 | ug/L | 466 | Standard |
| | Bi | 209 | 333406.8 | 0.4 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 740873.4 | 0.1 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6350.1 | 2.5 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1338.1 | 2.2 | **36.4040** | 0.121 | 0.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 22163.2 | 0.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 71657.6 | 1.0 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6813.7 | 1.5 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 112.849 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 97.589 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 120.676 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 101.368
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-04aD 10X**

Sample Date/Time: Thursday, October 31, 2019 11:15:12
Report Date/Time: Thursday, October 31, 2019 11:16:52
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 148168.3 | 2.2 | | | | ug/L | 131239 | Standard |
| | As | 75 | 16466.1 | 0.6 | **31.8251** | 0.833 | 2.6 | ug/L | 802 | Standard |
| | As-1 | 75 | 15679.1 | 0.7 | **25.0722** | 0.636 | 2.5 | ug/L | 20 | Standard |
| | Se | 77 | 75.7 | 15.2 | **1.5854** | 0.325 | 20.5 | ug/L | 15 | Standard |
| | Se | 78 | 1181.0 | 2.6 | **1.0927** | 0.259 | 23.7 | ug/L | 928 | Standard |
| | Br | 79 | 805.7 | 1.2 | | | | ug/L | 33 | Standard |
| | Se | 82 | 106.3 | 6.0 | **0.8764** | 0.059 | 6.7 | ug/L | 16 | Standard |
| | Kr | 83 | 158.3 | 3.9 | | | | ug/L | 8 | Standard |
| | Y | 89 | 483154.0 | 2.4 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 196268.6 | 1.5 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 432570.7 | 0.9 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 644862.5 | 1.1 | **205.4269** | 3.374 | 1.6 | ug/L | 43 | Standard |
| | Ba | 137 | 1108561.4 | 1.0 | **210.2531** | 1.519 | 0.7 | ug/L | 70 | Standard |
| > | Tb | 159 | 566326.8 | 0.9 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 553494.3 | 1.0 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 534789.5 | 0.6 | **10.7977** | 0.117 | 1.1 | ug/L | 466 | Standard |
| | Bi | 209 | 335324.2 | 0.2 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 721536.1 | 0.6 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6440.5 | 2.2 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1187.0 | 3.6 | **31.8550** | 1.643 | 5.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 21676.4 | 0.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 71823.8 | 1.0 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7034.1 | 1.0 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 112.899 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 96.705 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 121.144 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 102.811
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-04aL 50X**

Sample Date/Time: Thursday, October 31, 2019 11:19:13
Report Date/Time: Thursday, October 31, 2019 11:20:53
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158600.6 | 1.1 | | | | ug/L | 131239 | Standard |
| | As | 75 | 4027.4 | 2.2 | 5.8400 | 0.093 | 1.6 | ug/L | 802 | Standard |
| | As-1 | 75 | 3026.9 | 2.9 | 4.4895 | 0.081 | 1.8 | ug/L | 20 | Standard |
| | Se | 77 | 30.0 | 11.5 | 0.2911 | 0.090 | 30.9 | ug/L | 15 | Standard |
| | Se | 78 | 1247.7 | 3.1 | 0.9644 | 0.264 | 27.4 | ug/L | 928 | Standard |
| | Br | 79 | 192.7 | 13.6 | | | | ug/L | 33 | Standard |
| | Se | 82 | 42.0 | 13.3 | 0.2127 | 0.047 | 22.1 | ug/L | 16 | Standard |
| | Kr | 83 | 34.0 | 12.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 346981.4 | 3.4 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 249481.1 | 3.9 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 472299.7 | 2.0 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 120070.5 | 1.2 | 42.5837 | 0.561 | 1.3 | ug/L | 43 | Standard |
| | Ba | 137 | 199823.3 | 1.1 | 42.1965 | 0.482 | 1.1 | ug/L | 70 | Standard |
| > | Tb | 159 | 508495.0 | 0.3 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 523921.7 | 0.8 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 99286.9 | 0.8 | 2.2235 | 0.024 | 1.1 | ug/L | 466 | Standard |
| | Bi | 209 | 354222.2 | 1.2 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 567104.2 | 1.0 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6929.7 | 1.0 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 234.0 | 6.6 | 5.8044 | 0.423 | 7.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 13973.8 | 1.2 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 79858.9 | 1.0 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7620.1 | 2.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 120.848 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 105.587 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 108.773 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 110.620
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aMS 50X

Sample Date/Time: Thursday, October 31, 2019 11:23:15
Report Date/Time: Thursday, October 31, 2019 11:24:55
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158573.2 | 2.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 22406.2 | 1.3 | **40.9630** | 0.861 | 2.1 | ug/L | 802 | Standard |
| | As-1 | 75 | 26297.0 | 1.5 | **39.3065** | 0.660 | 1.7 | ug/L | 20 | Standard |
| | Se | 77 | 1505.4 | 3.3 | **37.7226** | 1.180 | 3.1 | ug/L | 15 | Standard |
| | Se | 78 | 5979.3 | 0.4 | **37.2657** | 0.909 | 2.4 | ug/L | 928 | Standard |
| | Br | 79 | 210.7 | 5.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 3814.8 | 1.7 | **35.0704** | 0.300 | 0.9 | ug/L | 16 | Standard |
| | Kr | 83 | 37.7 | 8.1 | | | | ug/L | 8 | Standard |
| | Y | 89 | 333932.5 | 2.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 241870.0 | 2.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 459835.5 | 0.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 221030.8 | 0.7 | **79.6867** | 0.797 | 1.0 | ug/L | 43 | Standard |
| | Ba | 137 | 375056.0 | 0.6 | **80.5087** | 0.260 | 0.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 500315.3 | 0.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 513095.1 | 0.7 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 3997892.9 | 1.1 | **91.4516** | 1.176 | 1.3 | ug/L | 466 | Standard |
| | Bi | 209 | 346582.7 | 0.9 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 556960.3 | 1.0 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6940.7 | 1.6 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1636.1 | 3.9 | **40.7480** | 2.184 | 5.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 13803.3 | 2.7 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 79341.1 | 1.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7588.1 | 0.7 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 120.828 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 102.801 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.024 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 110.796
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-04aMSD 50X**

Sample Date/Time: Thursday, October 31, 2019 11:27:17
Report Date/Time: Thursday, October 31, 2019 11:28:57
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161903.0 | 1.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 22942.9 | 1.1 | **41.0813** | 0.825 | 2.0 | ug/L | 802 | Standard |
| | As-1 | 75 | 26719.0 | 1.0 | **39.1138** | 0.781 | 2.0 | ug/L | 20 | Standard |
| | Se | 77 | 1510.7 | 1.4 | **37.0642** | 0.114 | 0.3 | ug/L | 15 | Standard |
| | Se | 78 | 6186.3 | 1.6 | **37.8669** | 0.780 | 2.1 | ug/L | 928 | Standard |
| | Br | 79 | 195.0 | 6.4 | | | | ug/L | 33 | Standard |
| | Se | 82 | 3843.2 | 1.2 | **34.6031** | 0.713 | 2.1 | ug/L | 16 | Standard |
| | Kr | 83 | 33.3 | 20.0 | | | | ug/L | 8 | Standard |
| | Y | 89 | 338351.2 | 5.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 242763.7 | 2.8 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 467504.2 | 0.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 221530.2 | 0.8 | **79.5107** | 0.495 | 0.6 | ug/L | 43 | Standard |
| | Ba | 137 | 374366.5 | 0.4 | **80.0057** | 0.549 | 0.7 | ug/L | 70 | Standard |
| > | Tb | 159 | 502558.6 | 1.0 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 511729.4 | 0.7 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 4032096.6 | 0.7 | **91.8230** | 0.437 | 0.5 | ug/L | 466 | Standard |
| | Bi | 209 | 349733.3 | 0.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 560674.1 | 0.3 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7095.8 | 1.0 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1696.1 | 1.1 | **41.3031** | 0.758 | 1.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 14128.0 | 0.7 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 81474.7 | 1.3 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7729.9 | 2.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 123.365 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 104.515 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 107.503 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 113.272 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aPS 10X

Sample Date/Time: Thursday, October 31, 2019 11:31:18
Report Date/Time: Thursday, October 31, 2019 11:32:58
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 144823.4 | 0.8 | | | | ug/L | 131239 | Standard |
| | As | 75 | 36647.0 | 0.6 | **74.8041** | 0.150 | 0.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 39804.2 | 0.9 | **65.1550** | 0.127 | 0.2 | ug/L | 20 | Standard |
| | Se | 77 | 1490.1 | 2.0 | **40.9220** | 1.101 | 2.7 | ug/L | 15 | Standard |
| | Se | 78 | 5719.1 | 0.9 | **39.4213** | 0.334 | 0.8 | ug/L | 928 | Standard |
| | Br | 79 | 595.7 | 3.3 | | | | ug/L | 33 | Standard |
| | Se | 82 | 3414.1 | 2.4 | **34.3557** | 0.580 | 1.7 | ug/L | 16 | Standard |
| | Kr | 83 | 144.3 | 14.7 | | | | ug/L | 8 | Standard |
| | Y | 89 | 491011.2 | 2.2 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 194412.5 | 2.6 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 417363.8 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 743729.6 | 0.3 | **245.9678** | 2.041 | 0.8 | ug/L | 43 | Standard |
| | Ba | 137 | 1265203.6 | 1.9 | **249.1199** | 3.142 | 1.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 545495.4 | 1.1 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 540985.7 | 1.5 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1894717.8 | 0.8 | **39.7461** | 0.336 | 0.8 | ug/L | 466 | Standard |
| | Bi | 209 | 318991.0 | 1.1 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 707849.4 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6216.4 | 1.0 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 2724.6 | 2.4 | **75.7715** | 2.428 | 3.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 21739.2 | 1.1 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 69964.2 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 6853.0 | 2.5 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 110.351 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 93.306 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 116.688 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 99.233
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 31, 2019 11:35:20
Report Date/Time: Thursday, October 31, 2019 11:36:59
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 162359.1 | 0.8 | | | | ug/L | 131239 | Standard |
| | As | 75 | 21927.2 | 0.6 | **39.0614** | 0.365 | 0.9 | ug/L | 802 | Standard |
| | As-1 | 75 | 26309.5 | 0.4 | **38.4010** | 0.311 | 0.8 | ug/L | 20 | Standard |
| | Se | 77 | 1571.8 | 3.5 | **38.4733** | 1.460 | 3.8 | ug/L | 15 | Standard |
| | Se | 78 | 6365.8 | 0.7 | **39.0800** | 0.584 | 1.5 | ug/L | 928 | Standard |
| | Br | 79 | 69.0 | 10.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 4161.3 | 0.2 | **37.3723** | 0.371 | 1.0 | ug/L | 16 | Standard |
| | Kr | 83 | 13.0 | 15.4 | | | | ug/L | 8 | Standard |
| | Y | 89 | 294646.7 | 3.3 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 248321.9 | 5.1 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 468335.1 | 0.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 106872.9 | 0.5 | **39.8424** | 0.546 | 1.4 | ug/L | 43 | Standard |
| | Ba | 137 | 180469.8 | 0.3 | **40.0598** | 0.507 | 1.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 483769.3 | 1.0 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 502886.3 | 0.3 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1634197.3 | 1.1 | **38.6578** | 0.727 | 1.9 | ug/L | 466 | Standard |
| | Bi | 209 | 364418.8 | 1.0 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 524822.3 | 0.5 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7159.5 | 1.5 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1549.4 | 2.0 | **37.3956** | 1.051 | 2.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 12009.4 | 2.7 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 81705.0 | 0.3 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7815.1 | 0.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 123.712 |
| | 75 | As | 97.654 | |
| | 75 | As-1 | 96.003 | |
| | 77 | Se | 96.183 | |
| | 78 | Se | 97.700 | |
| | 79 | Br | | |
| | 82 | Se | 93.431 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 104.701 |
| | 135 | Ba | 99.606 | |
| | 137 | Ba | 100.149 | |
| > | 159 | Tb | | 103.484 |
| | 165 | Ho | | |
| | 208 | Pb | 96.645 | |
| | 209 | Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 114.289 |
| | 75As-2 | 93.489 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 31, 2019 11:39:21
Report Date/Time: Thursday, October 31, 2019 11:41:01
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 166878.4 | 0.7 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1082.4 | 2.4 | 0.1129 | 0.037 | 32.5 | ug/L | 802 | Standard |
| | As-1 | 75 | 17.2 | 178.1 | -0.0124 | 0.044 | 350.8 | ug/L | 20 | Standard |
| | Se | 77 | 19.0 | 9.1 | -0.0122 | 0.038 | 315.6 | ug/L | 15 | Standard |
| | Se | 78 | 1255.7 | 3.0 | 0.5474 | 0.209 | 38.1 | ug/L | 928 | Standard |
| | Br | 79 | 55.3 | 12.3 | | | | ug/L | 33 | Standard |
| | Se | 82 | 18.0 | 48.4 | -0.0170 | 0.076 | 446.0 | ug/L | 16 | Standard |
| | Kr | 83 | 14.7 | 41.7 | | | | ug/L | 8 | Standard |
| | Y | 89 | 307518.2 | 3.5 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 262608.2 | 3.1 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 486325.0 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 68.3 | 10.6 | 0.0084 | 0.003 | 33.9 | ug/L | 43 | Standard |
| | Ba | 137 | 67.7 | 11.9 | -0.0012 | 0.002 | 145.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 490311.0 | 0.9 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 514260.1 | 1.2 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 534.0 | 2.5 | 0.0011 | 0.000 | 40.3 | ug/L | 466 | Standard |
| | Bi | 209 | 378618.8 | 0.5 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 541679.6 | 0.4 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7206.5 | 0.9 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 0.7 | 86.6 | -0.0209 | 0.014 | 66.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 12247.6 | 1.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 84035.5 | 1.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 8083.5 | 1.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 127.156 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 108.723 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 104.884 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 115.039 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04a 50X

Sample Date/Time: Thursday, October 31, 2019 11:43:46
Report Date/Time: Thursday, October 31, 2019 11:45:25
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 162187.6 | 1.2 | | | | ug/L | 131239 | Standard |
| | As | 75 | 4150.7 | 2.4 | **5.9013** | 0.198 | 3.4 | ug/L | 802 | Standard |
| | As-1 | 75 | 3105.2 | 3.0 | **4.5052** | 0.162 | 3.6 | ug/L | 20 | Standard |
| | Se | 77 | 29.3 | 22.7 | **0.2576** | 0.165 | 64.1 | ug/L | 15 | Standard |
| | Se | 78 | 1298.7 | 4.9 | **1.1329** | 0.370 | 32.6 | ug/L | 928 | Standard |
| | Br | 79 | 179.7 | 2.3 | | | | ug/L | 33 | Standard |
| | Se | 82 | 42.0 | 14.3 | **0.2043** | 0.052 | 25.2 | ug/L | 16 | Standard |
| | Kr | 83 | 32.0 | 11.3 | | | | ug/L | 8 | Standard |
| | Y | 89 | 360730.2 | 2.3 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 254245.1 | 4.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 462456.9 | 0.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 117061.0 | 0.4 | **42.1928** | 0.301 | 0.7 | ug/L | 43 | Standard |
| | Ba | 137 | 197084.5 | 0.5 | **42.2969** | 0.392 | 0.9 | ug/L | 70 | Standard |
| > | Tb | 159 | 500343.6 | 0.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 509153.0 | 1.0 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 98289.1 | 0.5 | **2.2371** | 0.003 | 0.1 | ug/L | 466 | Standard |
| | Bi | 209 | 353359.5 | 1.2 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 562107.6 | 1.3 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6855.3 | 1.3 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 232.3 | 4.6 | **5.8230** | 0.217 | 3.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 13861.4 | 1.0 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 79627.6 | 0.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7801.3 | 1.4 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 123.582 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 103.387 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 107.030 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 109.433 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-04aD 50X**

Sample Date/Time: Thursday, October 31, 2019 11:47:47
Report Date/Time: Thursday, October 31, 2019 11:49:26
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163996.7 | 2.5 | | | | ug/L | 131239 | Standard |
| | As | 75 | 4064.6 | 1.8 | **5.6602** | 0.272 | 4.8 | ug/L | 802 | Standard |
| | As-1 | 75 | 3036.2 | 2.5 | **4.3563** | 0.159 | 3.6 | ug/L | 20 | Standard |
| | Se | 77 | 24.7 | 13.0 | **0.1365** | 0.092 | 67.6 | ug/L | 15 | Standard |
| | Se | 78 | 1273.1 | 2.8 | **0.8456** | 0.483 | 57.2 | ug/L | 928 | Standard |
| | Br | 79 | 223.3 | 0.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 39.7 | 3.9 | **0.1798** | 0.022 | 12.1 | ug/L | 16 | Standard |
| | Kr | 83 | 25.3 | 8.2 | | | | ug/L | 8 | Standard |
| | Y | 89 | 350661.0 | 3.0 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 253349.4 | 1.4 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 469049.1 | 1.0 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 118509.3 | 1.6 | **42.6337** | 0.514 | 1.2 | ug/L | 43 | Standard |
| | Ba | 137 | 199229.3 | 0.8 | **42.6764** | 0.146 | 0.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 501278.4 | 0.6 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 514380.0 | 1.2 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 101057.7 | 1.6 | **2.2960** | 0.029 | 1.3 | ug/L | 466 | Standard |
| | Bi | 209 | 354887.2 | 1.3 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 568289.0 | 0.8 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7068.7 | 1.5 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 230.7 | 2.2 | **5.6067** | 0.124 | 2.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 14314.5 | 0.8 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 79939.0 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7999.0 | 2.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 124.960 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 104.860 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 107.230 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 112.840 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-04aL 250X**

Sample Date/Time: Thursday, October 31, 2019 11:51:48
Report Date/Time: Thursday, October 31, 2019 11:53:27
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 165944.9 | 2.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1771.5 | 1.4 | **1.3837** | 0.113 | 8.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 675.5 | 0.5 | **0.9290** | 0.027 | 2.9 | ug/L | 20 | Standard |
| | Se | 77 | 22.0 | 4.5 | **0.0636** | 0.029 | 45.0 | ug/L | 15 | Standard |
| | Se | 78 | 1306.1 | 2.2 | **0.9744** | 0.404 | 41.4 | ug/L | 928 | Standard |
| | Br | 79 | 85.3 | 4.7 | | | | ug/L | 33 | Standard |
| | Se | 82 | 23.7 | 4.9 | **0.0343** | 0.015 | 44.1 | ug/L | 16 | Standard |
| | Kr | 83 | 19.3 | 23.3 | | | | ug/L | 8 | Standard |
| | Y | 89 | 314025.8 | 1.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 258422.8 | 3.0 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 464379.9 | 1.0 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 25136.8 | 0.7 | **9.4607** | 0.036 | 0.4 | ug/L | 43 | Standard |
| | Ba | 137 | 42183.2 | 1.7 | **9.4542** | 0.183 | 1.9 | ug/L | 70 | Standard |
| > | Tb | 159 | 478492.8 | 0.3 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 494958.1 | 0.3 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 21675.5 | 1.2 | **0.5071** | 0.005 | 1.0 | ug/L | 466 | Standard |
| | Bi | 209 | 359695.1 | 0.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 535723.1 | 0.7 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7150.5 | 1.2 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 64.0 | 21.1 | **1.5089** | 0.313 | 20.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 12756.4 | 0.7 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 83480.5 | 0.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 8004.7 | 2.8 | | | | ug/L | 6581 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 126.445 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 103.817 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.356 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 114.145 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-04aPS 50X**

Sample Date/Time: Thursday, October 31, 2019 11:55:49
Report Date/Time: Thursday, October 31, 2019 11:57:28
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 160935.3 | 2.0 | | | | ug/L | 131239 | Standard |
| | As | 75 | 25132.8 | 0.5 | **45.4713** | 1.161 | 2.6 | ug/L | 802 | Standard |
| | As-1 | 75 | 29313.2 | 0.7 | **43.1780** | 0.907 | 2.1 | ug/L | 20 | Standard |
| | Se | 77 | 1609.8 | 3.8 | **39.7924** | 2.237 | 5.6 | ug/L | 15 | Standard |
| | Se | 78 | 6544.5 | 1.5 | **40.8581** | 0.912 | 2.2 | ug/L | 928 | Standard |
| | Br | 79 | 154.3 | 7.5 | | | | ug/L | 33 | Standard |
| | Se | 82 | 4142.9 | 2.1 | **37.5372** | 0.503 | 1.3 | ug/L | 16 | Standard |
| | Kr | 83 | 28.7 | 10.1 | | | | ug/L | 8 | Standard |
| | Y | 89 | 359154.6 | 2.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 256709.6 | 4.2 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 460183.9 | 0.4 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 222937.6 | 1.1 | **80.4227** | 1.165 | 1.4 | ug/L | 43 | Standard |
| | Ba | 137 | 376439.9 | 0.2 | **80.8551** | 0.468 | 0.6 | ug/L | 70 | Standard |
| > | Tb | 159 | 500020.0 | 0.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 513335.4 | 1.3 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1704443.5 | 0.5 | **39.0049** | 0.182 | 0.5 | ug/L | 466 | Standard |
| | Bi | 209 | 348508.5 | 0.4 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 556927.7 | 0.8 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7148.1 | 0.7 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1887.5 | 2.9 | **45.6208** | 1.010 | 2.2 | ug/L | 1 | KED |
| | Y-1 | 89 | 14558.1 | 1.0 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 81267.3 | 2.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7997.7 | 0.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 122.627 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 102.878 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 106.960 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 114.108
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-01 10X**

Sample Date/Time: Thursday, October 31, 2019 11:59:50
Report Date/Time: Thursday, October 31, 2019 12:01:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 156806.7 | 1.5 | | | | ug/L | 131239 | Standard |
| | As | 75 | 85877.9 | 0.6 | **164.0828** | 3.101 | 1.9 | ug/L | 802 | Standard |
| | As-1 | 75 | 85071.6 | 0.5 | **128.6715** | 2.418 | 1.9 | ug/L | 20 | Standard |
| | Se | 77 | 68.0 | 11.1 | **1.2727** | 0.168 | 13.2 | ug/L | 15 | Standard |
| | Se | 78 | 1264.7 | 3.8 | **1.2040** | 0.244 | 20.3 | ug/L | 928 | Standard |
| | Br | 79 | 138.0 | 16.1 | | | | ug/L | 33 | Standard |
| | Se | 82 | 129.0 | 14.4 | **1.0293** | 0.162 | 15.8 | ug/L | 16 | Standard |
| | Kr | 83 | 167.7 | 13.7 | | | | ug/L | 8 | Standard |
| | Y | 89 | 679594.3 | 2.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 209170.1 | 3.5 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 435618.7 | 0.3 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 67273.7 | 0.3 | **21.0086** | 0.087 | 0.4 | ug/L | 43 | Standard |
| | Ba | 137 | 117417.9 | 0.6 | **21.8340** | 0.159 | 0.7 | ug/L | 70 | Standard |
| > | Tb | 159 | 577249.0 | 0.2 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 580549.4 | 1.2 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 720389.1 | 0.3 | **14.2728** | 0.060 | 0.4 | ug/L | 466 | Standard |
| | Bi | 209 | 332263.5 | 1.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 632740.8 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6716.9 | 1.4 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 6300.7 | 0.4 | **162.2013** | 2.562 | 1.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 30385.6 | 0.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73551.2 | 1.7 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7431.6 | 2.7 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 119.482 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 97.387 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 123.481 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 107.224 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-02 10X**

Sample Date/Time: Thursday, October 31, 2019 12:03:50
Report Date/Time: Thursday, October 31, 2019 12:05:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 150543.9 | 3.2 | | | | ug/L | 131239 | Standard |
| | As | 75 | 131590.5 | 1.7 | **263.0290** | 4.210 | 1.6 | ug/L | 802 | Standard |
| | As-1 | 75 | 130822.6 | 1.7 | **206.1561** | 3.247 | 1.6 | ug/L | 20 | Standard |
| | Se | 77 | 96.0 | 9.5 | **2.0916** | 0.164 | 7.8 | ug/L | 15 | Standard |
| | Se | 78 | 1316.4 | 2.4 | **2.0335** | 0.126 | 6.2 | ug/L | 928 | Standard |
| | Br | 79 | 366.0 | 6.8 | | | | ug/L | 33 | Standard |
| | Se | 82 | 164.0 | 10.3 | **1.4191** | 0.126 | 8.9 | ug/L | 16 | Standard |
| | Kr | 83 | 122.3 | 7.0 | | | | ug/L | 8 | Standard |
| | Y | 89 | 425133.2 | 1.1 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 202241.2 | 0.4 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 430194.7 | 0.5 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 411028.2 | 1.0 | **138.0197** | 3.024 | 2.2 | ug/L | 43 | Standard |
| | Ba | 137 | 697390.2 | 0.7 | **139.4326** | 2.811 | 2.0 | ug/L | 70 | Standard |
| > | Tb | 159 | 537303.0 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 529129.4 | 1.5 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1069352.4 | 0.4 | **22.7704** | 0.216 | 0.9 | ug/L | 466 | Standard |
| | Bi | 209 | 334174.8 | 0.8 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 679899.2 | 1.2 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6443.5 | 0.4 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 9869.1 | 1.5 | **264.8242** | 3.029 | 1.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 19116.1 | 1.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 71315.6 | 0.3 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7210.0 | 1.9 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov Int Std | % Recovery |
|---|---|---|---|
| > | 72Ge | | 114.710 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 96.174 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 114.936 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1 102.859
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-03 10X**

Sample Date/Time: Thursday, October 31, 2019 12:07:51
Report Date/Time: Thursday, October 31, 2019 12:09:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 152506.9 | 1.8 | | | | ug/L | 131239 | Standard |
| | As | 75 | 55751.3 | 0.7 | **108.9065** | 1.586 | 1.5 | ug/L | 802 | Standard |
| | As-1 | 75 | 54921.4 | 0.8 | **85.3969** | 1.224 | 1.4 | ug/L | 20 | Standard |
| | Se | 77 | 92.0 | 6.6 | **1.9574** | 0.172 | 8.8 | ug/L | 15 | Standard |
| | Se | 78 | 1316.7 | 1.6 | **1.8998** | 0.275 | 14.5 | ug/L | 928 | Standard |
| | Br | 79 | 248.0 | 3.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 138.3 | 6.8 | **1.1544** | 0.097 | 8.4 | ug/L | 16 | Standard |
| | Kr | 83 | 130.0 | 2.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 513216.9 | 3.8 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 205877.6 | 3.3 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 435272.0 | 1.3 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 215023.2 | 0.6 | **70.6328** | 0.331 | 0.5 | ug/L | 43 | Standard |
| | Ba | 137 | 366878.5 | 1.4 | **71.7544** | 0.415 | 0.6 | ug/L | 70 | Standard |
| > | Tb | 159 | 549089.3 | 0.9 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 538903.6 | 0.6 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 698522.1 | 1.9 | **14.5488** | 0.187 | 1.3 | ug/L | 466 | Standard |
| | Bi | 209 | 331718.0 | 0.9 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 687196.2 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6564.2 | 0.9 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 4160.6 | 0.9 | **109.5839** | 1.956 | 1.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 22578.8 | 0.9 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 74451.2 | 1.3 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7444.1 | 1.6 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recovint Std % Recovery |
|---|---|---|
| > | 72Ge | 116.205 |
| | 75As | |
| | 75As-1 | |
| | 77Se | |
| | 78Se | |
| | 79Br | |
| | 82Se | |
| | 83Kr | |
| | 89Y | |
| | 103Rh | |
| > | 115In | 97.309 |
| | 135Ba | |
| | 137Ba | |
| > | 159Tb | 117.457 |
| | 165Ho | |
| | 208Pb | |
| | 209Bi | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 104.786 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-05 10X

Sample Date/Time: Thursday, October 31, 2019 12:11:51
Report Date/Time: Thursday, October 31, 2019 12:13:30
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 153687.0 | 1.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 63927.3 | 1.0 | **124.1630** | 1.552 | 1.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 63202.7 | 1.0 | **97.5154** | 1.214 | 1.2 | ug/L | 20 | Standard |
| | Se | 77 | 96.3 | 5.1 | **2.0526** | 0.158 | 7.7 | ug/L | 15 | Standard |
| | Se | 78 | 1244.7 | 3.3 | **1.2452** | 0.203 | 16.3 | ug/L | 928 | Standard |
| | Br | 79 | 490.0 | 1.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 155.7 | 8.6 | **1.3081** | 0.110 | 8.4 | ug/L | 16 | Standard |
| | Kr | 83 | 151.3 | 10.3 | | | | ug/L | 8 | Standard |
| | Y | 89 | 585464.2 | 3.2 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 203840.0 | 3.2 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 429596.2 | 0.3 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 411792.9 | 1.2 | **134.2011** | 0.720 | 0.5 | ug/L | 43 | Standard |
| | Ba | 137 | 702718.2 | 0.8 | **136.3614** | 0.710 | 0.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 553524.3 | 1.3 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 547503.6 | 1.0 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 990746.7 | 1.2 | **20.4778** | 0.369 | 1.8 | ug/L | 466 | Standard |
| | Bi | 209 | 328932.6 | 0.7 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 655913.8 | 0.5 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6511.5 | 1.4 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 4806.5 | 2.4 | **127.6041** | 1.791 | 1.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 26223.4 | 1.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 71953.4 | 1.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7525.0 | 1.3 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 117.104 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 96.040 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 118.406 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 103.945 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-06 10X**

Sample Date/Time: Thursday, October 31, 2019 12:15:52
Report Date/Time: Thursday, October 31, 2019 12:17:32
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154607.6 | 1.3 | | | | ug/L | 131239 | Standard |
| | As | 75 | 85477.7 | 0.2 | **165.6461** | 2.005 | 1.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 84664.9 | 0.2 | **129.8685** | 1.573 | 1.2 | ug/L | 20 | Standard |
| | Se | 77 | 74.0 | 5.9 | **1.4548** | 0.095 | 6.5 | ug/L | 15 | Standard |
| | Se | 78 | 1262.1 | 5.4 | **1.3261** | 0.556 | 41.9 | ug/L | 928 | Standard |
| | Br | 79 | 308.0 | 4.3 | | | | ug/L | 33 | Standard |
| | Se | 82 | 125.3 | 12.0 | **1.0136** | 0.152 | 15.0 | ug/L | 16 | Standard |
| | Kr | 83 | 89.7 | 10.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 416313.6 | 0.8 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 214750.2 | 2.0 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 440106.1 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 336254.9 | 1.9 | **113.1151** | 0.893 | 0.8 | ug/L | 43 | Standard |
| | Ba | 137 | 570472.0 | 0.7 | **114.2764** | 1.021 | 0.9 | ug/L | 70 | Standard |
| > | Tb | 159 | 536203.2 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 529586.9 | 0.0 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 720720.2 | 0.6 | **15.3745** | 0.145 | 0.9 | ug/L | 466 | Standard |
| | Bi | 209 | 337276.1 | 0.7 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 672294.1 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6714.6 | 1.2 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 6550.5 | 0.6 | **168.6807** | 1.818 | 1.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 18257.0 | 0.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 74352.7 | 1.1 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7542.3 | 0.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.806 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 98.390 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 114.700 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 107.187
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-07 10X

Sample Date/Time: Thursday, October 31, 2019 12:19:54
Report Date/Time: Thursday, October 31, 2019 12:21:34
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 155142.9 | 0.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 125410.7 | 1.0 | **243.0294** | 2.877 | 1.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 124609.5 | 1.0 | **190.4821** | 2.212 | 1.2 | ug/L | 20 | Standard |
| | Se | 77 | 82.7 | 7.1 | **1.6734** | 0.151 | 9.0 | ug/L | 15 | Standard |
| | Se | 78 | 1289.7 | 2.3 | **1.5082** | 0.293 | 19.4 | ug/L | 928 | Standard |
| | Br | 79 | 373.0 | 3.7 | | | | ug/L | 33 | Standard |
| | Se | 82 | 140.3 | 1.5 | **1.1502** | 0.014 | 1.2 | ug/L | 16 | Standard |
| | Kr | 83 | 81.3 | 18.1 | | | | ug/L | 8 | Standard |
| | Y | 89 | 396572.2 | 0.6 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 215273.3 | 3.3 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 438216.9 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 272221.1 | 1.2 | **92.3921** | 1.055 | 1.1 | ug/L | 43 | Standard |
| | Ba | 137 | 465675.8 | 1.1 | **94.1085** | 1.221 | 1.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 531458.3 | 0.5 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 523694.3 | 0.5 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 721504.2 | 0.6 | **15.5274** | 0.037 | 0.2 | ug/L | 466 | Standard |
| | Bi | 209 | 336030.0 | 0.9 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 648576.4 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6570.2 | 0.5 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 9553.9 | 0.9 | **251.4374** | 3.614 | 1.4 | ug/L | 1 | KED |
| | Y-1 | 89 | 17081.2 | 1.6 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 73095.2 | 1.6 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7347.8 | 2.7 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 118.214 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 97.968 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 113.685 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 104.882 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 31, 2019 12:23:56
Report Date/Time: Thursday, October 31, 2019 12:25:35
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 158745.5 | 0.7 | | | | ug/L | 131239 | Standard |
| | As | 75 | 21650.6 | 1.1 | **39.4637** | 0.430 | 1.1 | ug/L | 802 | Standard |
| | As-1 | 75 | 25996.9 | 1.4 | **38.8075** | 0.456 | 1.2 | ug/L | 20 | Standard |
| | Se | 77 | 1580.4 | 1.3 | **39.5754** | 0.271 | 0.7 | ug/L | 15 | Standard |
| | Se | 78 | 6455.5 | 1.0 | **40.8509** | 0.548 | 1.3 | ug/L | 928 | Standard |
| | Br | 79 | 67.7 | 7.6 | | | | ug/L | 33 | Standard |
| | Se | 82 | 4179.3 | 0.9 | **38.3908** | 0.138 | 0.4 | ug/L | 16 | Standard |
| | Kr | 83 | 15.3 | 16.4 | | | | ug/L | 8 | Standard |
| | Y | 89 | 313500.0 | 4.8 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 268974.7 | 4.6 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 463094.0 | 0.8 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 102866.0 | 0.2 | **40.0259** | 0.486 | 1.2 | ug/L | 43 | Standard |
| | Ba | 137 | 172512.8 | 1.2 | **39.9648** | 0.122 | 0.3 | ug/L | 70 | Standard |
| > | Tb | 159 | 463495.9 | 1.1 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 480631.5 | 1.8 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1572147.7 | 0.5 | **38.8149** | 0.393 | 1.0 | ug/L | 466 | Standard |
| | Bi | 209 | 353631.8 | 0.3 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 514876.2 | 1.1 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6870.0 | 2.0 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1594.8 | 2.1 | **40.1276** | 1.637 | 4.1 | ug/L | 1 | KED |
| | Y-1 | 89 | 12012.4 | 1.2 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 80085.5 | 0.6 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7806.3 | 1.2 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 120.959 |
| | 75 | As | 98.659 | |
| | 75 | As-1 | 97.019 | |
| | 77 | Se | 98.939 | |
| | 78 | Se | 102.127 | |
| | 79 | Br | | |
| | 82 | Se | 95.977 | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 103.529 |
| | 135 | Ba | 100.065 | |
| | 137 | Ba | 99.912 | |
| > | 159 | Tb | | 99.147 |
| | 165 | Ho | | |
| | 208 | Pb | 97.037 | |
| | 209 | Bi | | |

| | | |
|---|---|---|
| 232Th | | |
| 72Ge-1 | | 109.668 |
| 75As-2 | 100.319 | |
| 89Y-1 | | |
| 103Rh-1 | | |
| 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Thursday, October 31, 2019 12:27:58
Report Date/Time: Thursday, October 31, 2019 12:29:38
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 163781.3 | 2.7 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1137.2 | 6.4 | 0.2536 | 0.169 | 66.7 | ug/L | 802 | Standard |
| | As-1 | 75 | 12.9 | 164.2 | -0.0176 | 0.031 | 178.4 | ug/L | 20 | Standard |
| | Se | 77 | 15.0 | 13.3 | -0.1023 | 0.039 | 38.3 | ug/L | 15 | Standard |
| | Se | 78 | 1318.1 | 5.3 | 1.1904 | 0.616 | 51.8 | ug/L | 928 | Standard |
| | Br | 79 | 55.7 | 17.0 | | | | ug/L | 33 | Standard |
| | Se | 82 | 16.3 | 9.4 | -0.0289 | 0.011 | 38.1 | ug/L | 16 | Standard |
| | Kr | 83 | 11.3 | 33.4 | | | | ug/L | 8 | Standard |
| | Y | 89 | 316716.4 | 5.2 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 272255.1 | 3.4 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 474077.0 | 0.4 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 60.7 | 6.9 | 0.0062 | 0.002 | 27.4 | ug/L | 43 | Standard |
| | Ba | 137 | 75.7 | 14.5 | 0.0010 | 0.002 | 227.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 478044.9 | 1.5 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 497728.0 | 0.9 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 509.0 | 8.1 | 0.0008 | 0.001 | 104.5 | ug/L | 466 | Standard |
| | Bi | 209 | 367469.7 | 0.8 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 531692.3 | 0.7 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7276.9 | 0.6 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 3.3 | 96.4 | 0.0423 | 0.076 | 179.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 12513.8 | 1.9 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 82973.6 | 1.4 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 8322.7 | 0.4 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 124.796 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 105.984 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 102.260 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 116.163
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-01 25X**

Sample Date/Time: Thursday, October 31, 2019 12:32:02
Report Date/Time: Thursday, October 31, 2019 12:33:42
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161643.0 | 0.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 34328.1 | 0.5 | **62.4825** | 0.440 | 0.7 | ug/L | 802 | Standard |
| | As-1 | 75 | 33356.0 | 0.4 | **48.9110** | 0.328 | 0.7 | ug/L | 20 | Standard |
| | Se | 77 | 41.0 | 17.1 | **0.5510** | 0.180 | 32.6 | ug/L | 15 | Standard |
| | Se | 78 | 1321.7 | 3.4 | **1.3413** | 0.336 | 25.0 | ug/L | 928 | Standard |
| | Br | 79 | 96.7 | 11.1 | | | | ug/L | 33 | Standard |
| | Se | 82 | 81.0 | 11.9 | **0.5592** | 0.087 | 15.6 | ug/L | 16 | Standard |
| | Kr | 83 | 68.0 | 8.9 | | | | ug/L | 8 | Standard |
| | Y | 89 | 501734.0 | 2.4 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 242596.6 | 0.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 450361.7 | 1.4 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 27617.3 | 1.2 | **9.3839** | 0.091 | 1.0 | ug/L | 43 | Standard |
| | Ba | 137 | 46750.0 | 0.5 | **9.4592** | 0.066 | 0.7 | ug/L | 70 | Standard |
| > | Tb | 159 | 530001.9 | 0.3 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 537375.7 | 0.9 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 303993.0 | 0.5 | **6.5536** | 0.019 | 0.3 | ug/L | 466 | Standard |
| | Bi | 209 | 341372.7 | 0.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 567245.2 | 0.9 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7025.1 | 1.0 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 2511.6 | 1.1 | **61.7927** | 0.980 | 1.6 | ug/L | 1 | KED |
| | Y-1 | 89 | 20041.7 | 0.7 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 77246.3 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7826.2 | 2.3 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 123.167 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 100.683 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 113.374 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 112.143 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-02 50X**

Sample Date/Time: Thursday, October 31, 2019 12:36:03
Report Date/Time: Thursday, October 31, 2019 12:37:43
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 157881.3 | 2.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 26744.6 | 1.8 | **49.4754** | 1.000 | 2.0 | ug/L | 802 | Standard |
| | As-1 | 75 | 25708.8 | 1.8 | **38.5969** | 0.773 | 2.0 | ug/L | 20 | Standard |
| | Se | 77 | 33.7 | 21.9 | **0.3850** | 0.164 | 42.6 | ug/L | 15 | Standard |
| | Se | 78 | 1316.7 | 3.6 | **1.5380** | 0.109 | 7.1 | ug/L | 928 | Standard |
| | Br | 79 | 138.3 | 2.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 52.7 | 11.6 | **0.3136** | 0.053 | 16.9 | ug/L | 16 | Standard |
| | Kr | 83 | 31.3 | 15.7 | | | | ug/L | 8 | Standard |
| | Y | 89 | 346589.4 | 1.7 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 251506.7 | 1.6 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 441068.7 | 0.7 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 79702.7 | 0.2 | **29.8485** | 0.041 | 0.1 | ug/L | 43 | Standard |
| | Ba | 137 | 135026.9 | 1.3 | **30.1098** | 0.448 | 1.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 481467.6 | 0.2 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 489267.1 | 1.4 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 216233.2 | 0.5 | **5.1291** | 0.013 | 0.3 | ug/L | 466 | Standard |
| | Bi | 209 | 335218.2 | 0.7 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 537414.5 | 0.6 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6792.3 | 0.6 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1978.1 | 2.3 | **50.3233** | 0.874 | 1.7 | ug/L | 1 | KED |
| | Y-1 | 89 | 13563.4 | 2.4 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 77487.6 | 2.2 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7831.3 | 0.6 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 120.300 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 98.605 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 102.992 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 108.427 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-03 25X

Sample Date/Time: Thursday, October 31, 2019 12:40:05
Report Date/Time: Thursday, October 31, 2019 12:41:44
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 159571.3 | 1.0 | | | | ug/L | 131239 | Standard |
| | As | 75 | 21966.1 | 1.7 | **39.8478** | 0.481 | 1.2 | ug/L | 802 | Standard |
| | As-1 | 75 | 20986.8 | 1.7 | **31.1587** | 0.379 | 1.2 | ug/L | 20 | Standard |
| | Se | 77 | 50.3 | 14.4 | **0.7983** | 0.177 | 22.2 | ug/L | 15 | Standard |
| | Se | 78 | 1339.1 | 2.1 | **1.6018** | 0.118 | 7.4 | ug/L | 928 | Standard |
| | Br | 79 | 150.0 | 1.2 | | | | ug/L | 33 | Standard |
| | Se | 82 | 84.3 | 2.5 | **0.5995** | 0.026 | 4.4 | ug/L | 16 | Standard |
| | Kr | 83 | 50.7 | 14.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 413795.4 | 2.5 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 246693.3 | 3.9 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 438865.4 | 0.5 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 82873.4 | 0.9 | **30.1307** | 0.903 | 3.0 | ug/L | 43 | Standard |
| | Ba | 137 | 140039.5 | 1.3 | **30.3089** | 0.481 | 1.6 | ug/L | 70 | Standard |
| > | Tb | 159 | 496143.3 | 2.1 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 500760.9 | 2.1 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 274157.8 | 0.8 | **6.3146** | 0.093 | 1.5 | ug/L | 466 | Standard |
| | Bi | 209 | 330782.5 | 0.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 569979.2 | 0.6 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6682.9 | 2.6 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1606.1 | 2.2 | **41.5577** | 1.992 | 4.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 16399.4 | 0.6 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 76651.8 | 1.3 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7621.1 | 1.2 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 121.588 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 98.113 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 106.131 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

232Th
72Ge-1
75As-2
89Y-1
103Rh-1
115In-1

106.681

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-05 25X**
Sample Date/Time: Thursday, October 31, 2019 12:44:06
Report Date/Time: Thursday, October 31, 2019 12:45:45
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 161804.5 | 0.9 | | | | ug/L | 131239 | Standard |
| | As | 75 | 26826.3 | 0.4 | **48.3742** | 0.376 | 0.8 | ug/L | 802 | Standard |
| | As-1 | 75 | 25827.4 | 0.3 | **37.8263** | 0.301 | 0.8 | ug/L | 20 | Standard |
| | Se | 77 | 50.7 | 8.0 | **0.7891** | 0.090 | 11.4 | ug/L | 15 | Standard |
| | Se | 78 | 1340.4 | 2.0 | **1.4710** | 0.117 | 7.9 | ug/L | 928 | Standard |
| | Br | 79 | 273.7 | 7.9 | | | | ug/L | 33 | Standard |
| | Se | 82 | 76.7 | 17.0 | **0.5193** | 0.119 | 23.0 | ug/L | 16 | Standard |
| | Kr | 83 | 53.0 | 17.3 | | | | ug/L | 8 | Standard |
| | Y | 89 | 465186.5 | 3.8 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 248970.5 | 5.6 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 449949.9 | 0.8 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 168319.2 | 1.2 | **58.5803** | 0.838 | 1.4 | ug/L | 43 | Standard |
| | Ba | 137 | 289100.6 | 1.3 | **59.9090** | 0.863 | 1.4 | ug/L | 70 | Standard |
| > | Tb | 159 | 518257.3 | 1.2 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 522314.1 | 0.3 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 414346.4 | 0.3 | **9.1406** | 0.131 | 1.4 | ug/L | 466 | Standard |
| | Bi | 209 | 337549.3 | 1.0 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 573458.2 | 0.8 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6906.7 | 1.5 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1967.8 | 2.1 | **49.2504** | 1.732 | 3.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 18531.3 | 0.9 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 78552.7 | 1.1 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7998.9 | 0.3 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 123.290 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 100.591 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 110.862 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 110.253 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-06 25X**

Sample Date/Time: Thursday, October 31, 2019 12:48:07
Report Date/Time: Thursday, October 31, 2019 12:49:46
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 154792.9 | 1.5 | | | | ug/L | 131239 | Standard |
| | As | 75 | 35983.6 | 1.3 | **68.5705** | 0.567 | 0.8 | ug/L | 802 | Standard |
| | As-1 | 75 | 34954.2 | 1.4 | **53.5263** | 0.433 | 0.8 | ug/L | 20 | Standard |
| | Se | 77 | 41.7 | 6.0 | **0.6135** | 0.080 | 13.0 | ug/L | 15 | Standard |
| | Se | 78 | 1369.4 | 2.8 | **2.1595** | 0.425 | 19.7 | ug/L | 928 | Standard |
| | Br | 79 | 164.7 | 12.7 | | | | ug/L | 33 | Standard |
| | Se | 82 | 74.7 | 8.2 | **0.5314** | 0.050 | 9.4 | ug/L | 16 | Standard |
| | Kr | 83 | 50.0 | 19.1 | | | | ug/L | 8 | Standard |
| | Y | 89 | 376268.2 | 3.8 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 253836.8 | 5.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 438896.3 | 1.5 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 139113.7 | 0.6 | **51.3067** | 0.750 | 1.5 | ug/L | 43 | Standard |
| | Ba | 137 | 235912.0 | 0.6 | **51.8042** | 0.506 | 1.0 | ug/L | 70 | Standard |
| > | Tb | 159 | 489054.2 | 1.1 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 494795.1 | 0.6 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 304977.9 | 0.6 | **7.1266** | 0.046 | 0.6 | ug/L | 466 | Standard |
| | Bi | 209 | 329313.5 | 0.6 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 559738.1 | 0.4 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6810.0 | 2.7 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 2628.2 | 2.7 | **66.7046** | 0.328 | 0.5 | ug/L | 1 | KED |
| | Y-1 | 89 | 14691.2 | 1.7 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 75658.8 | 1.1 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 7683.5 | 1.2 | | | | ug/L | 6581 | KED |

# QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 117.947 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 98.119 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 104.615 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

232Th
72Ge-1 108.709
75As-2
89Y-1
103Rh-1
115In-1

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-07 50X

Sample Date/Time: Thursday, October 31, 2019 12:52:08
Report Date/Time: Thursday, October 31, 2019 12:53:47
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 159891.9 | 1.4 | | | | ug/L | 131239 | Standard |
| | As | 75 | 26743.3 | 2.3 | **48.8118** | 0.513 | 1.1 | ug/L | 802 | Standard |
| | As-1 | 75 | 25686.3 | 2.4 | **38.0652** | 0.411 | 1.1 | ug/L | 20 | Standard |
| | Se | 77 | 32.0 | 8.3 | **0.3348** | 0.060 | 17.9 | ug/L | 15 | Standard |
| | Se | 78 | 1329.1 | 2.1 | **1.5056** | 0.118 | 7.8 | ug/L | 928 | Standard |
| | Br | 79 | 130.7 | 10.4 | | | | ug/L | 33 | Standard |
| | Se | 82 | 48.3 | 7.3 | **0.2680** | 0.033 | 12.4 | ug/L | 16 | Standard |
| | Kr | 83 | 28.3 | 12.4 | | | | ug/L | 8 | Standard |
| | Y | 89 | 342166.6 | 1.1 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 261878.7 | 2.7 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 451232.2 | 0.8 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 55439.7 | 1.1 | **20.7864** | 0.059 | 0.3 | ug/L | 43 | Standard |
| | Ba | 137 | 93420.5 | 1.2 | **20.8576** | 0.314 | 1.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 480784.7 | 1.0 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 493919.3 | 0.6 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 152496.2 | 0.6 | **3.6192** | 0.037 | 1.0 | ug/L | 466 | Standard |
| | Bi | 209 | 340581.9 | 0.8 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 538375.7 | 1.0 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 6907.0 | 0.8 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1942.1 | 2.1 | **48.5850** | 0.654 | 1.3 | ug/L | 1 | KED |
| | Y-1 | 89 | 13305.9 | 0.8 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 78643.5 | 0.5 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 8066.9 | 1.5 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 121.832 |
| | 75As | | |
| | 75As-1 | | |
| | 77Se | | |
| | 78Se | | |
| | 79Br | | |
| | 82Se | | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 100.877 |
| | 135Ba | | |
| | 137Ba | | |
| > | 159Tb | | 102.846 |
| | 165Ho | | |
| | 208Pb | | |
| | 209Bi | | |

| | | |
|---|---|---|
| | 232Th | |
| > | 72Ge-1 | 110.258 |
| | 75As-2 | |
| | 89Y-1 | |
| | 103Rh-1 | |
| | 115In-1 | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Thursday, October 31, 2019 12:56:09
Report Date/Time: Thursday, October 31, 2019 12:57:49
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031B.sam
Method File: C:\NexION\Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 170933.6 | 0.8 | | | | ug/L | 131239 | Standard |
| | As | 75 | 22606.3 | 1.0 | **38.2126** | 0.488 | 1.3 | ug/L | 802 | Standard |
| | As-1 | 75 | 27232.9 | 0.2 | **37.7547** | 0.342 | 0.9 | ug/L | 20 | Standard |
| | Se | 77 | 1666.4 | 5.2 | **38.7375** | 1.770 | 4.6 | ug/L | 15 | Standard |
| | Se | 78 | 6771.6 | 2.4 | **39.5690** | 0.821 | 2.1 | ug/L | 928 | Standard |
| | Br | 79 | 54.3 | 19.7 | | | | ug/L | 33 | Standard |
| | Se | 82 | 4412.0 | 2.6 | **37.6355** | 0.915 | 2.4 | ug/L | 16 | Standard |
| | Kr | 83 | 14.7 | 25.8 | | | | ug/L | 8 | Standard |
| | Y | 89 | 315824.4 | 3.7 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 271518.3 | 2.4 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 460927.6 | 1.1 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 102842.9 | 0.5 | **39.9760** | 0.072 | 0.2 | ug/L | 43 | Standard |
| | Ba | 137 | 172748.6 | 0.7 | **39.9822** | 0.188 | 0.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 463928.4 | 0.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 485413.1 | 0.8 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 1583034.8 | 0.8 | **39.0447** | 0.255 | 0.7 | ug/L | 466 | Standard |
| | Bi | 209 | 354144.0 | 0.7 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 520674.2 | 1.1 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7207.5 | 2.5 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 1623.4 | 3.0 | **38.9213** | 1.103 | 2.8 | ug/L | 1 | KED |
| | Y-1 | 89 | 12403.1 | 2.0 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 81342.9 | 1.0 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 8276.8 | 1.1 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| > | 72Ge | | 130.246 |
| | 75As | 95.532 | |
| | 75As-1 | 94.387 | |
| | 77Se | 96.844 | |
| | 78Se | 98.923 | |
| | 79Br | | |
| | 82Se | 94.089 | |
| | 83Kr | | |
| | 89Y | | |
| | 103Rh | | |
| > | 115In | | 103.045 |
| | 135Ba | 99.940 | |
| | 137Ba | 99.955 | |
| > | 159Tb | | 99.240 |
| | 165Ho | | |
| | 208Pb | 97.612 | |
| | 209Bi | | |

| | | | |
|---|---|---|---|
| | 232Th | | |
| > | 72Ge-1 | | 115.055 |
| | 75As-2 | 97.303 | |
| | 89Y-1 | | |
| | 103Rh-1 | | |
| | 115In-1 | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Thursday, October 31, 2019 13:00:11
Report Date/Time: Thursday, October 31, 2019 13:01:51
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031B.sam
Method File: C:\NexION Data\Method\X191031B.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| > | Ge | 72 | 172782.7 | 2.6 | | | | ug/L | 131239 | Standard |
| | As | 75 | 1198.2 | 5.6 | 0.2479 | 0.065 | 26.3 | ug/L | 802 | Standard |
| | As-1 | 75 | 39.7 | 43.7 | 0.0172 | 0.023 | 131.1 | ug/L | 20 | Standard |
| | Se | 77 | 19.0 | 15.8 | -0.0278 | 0.067 | 239.5 | ug/L | 15 | Standard |
| | Se | 78 | 1384.1 | 4.8 | 1.1358 | 0.262 | 23.1 | ug/L | 928 | Standard |
| | Br | 79 | 53.0 | 5.7 | | | | ug/L | 33 | Standard |
| | Se | 82 | 26.3 | 17.1 | 0.0481 | 0.035 | 73.0 | ug/L | 16 | Standard |
| | Kr | 83 | 16.7 | 33.0 | | | | ug/L | 8 | Standard |
| | Y | 89 | 334992.8 | 2.2 | | | | ug/L | 240892 | Standard |
| | Rh | 103 | 280711.5 | 3.4 | | | | ug/L | 215037 | Standard |
| > | In | 115 | 477336.0 | 0.6 | | | | ug/L | 447308 | Standard |
| | Ba | 135 | 59.0 | 17.9 | 0.0056 | 0.004 | 75.6 | ug/L | 43 | Standard |
| | Ba | 137 | 63.3 | 8.7 | -0.0018 | 0.001 | 71.5 | ug/L | 70 | Standard |
| > | Tb | 159 | 477424.9 | 1.4 | | | | ug/L | 467481 | Standard |
| | Ho | 165 | 501241.1 | 1.0 | | | | ug/L | 489100 | Standard |
| | Pb | 208 | 503.7 | 2.4 | 0.0007 | 0.000 | 23.7 | ug/L | 466 | Standard |
| | Bi | 209 | 368471.5 | 0.4 | | | | ug/L | 367177 | Standard |
| | Th | 232 | 532504.1 | 0.2 | | | | ug/L | 525333 | Standard |
| > | Ge-1 | 72 | 7438.6 | 0.8 | | | | ug/L | 6264 | KED |
| | As-2 | 75 | 0.0 | | -0.0368 | 0.000 | 0.0 | ug/L | 1 | KED |
| | Y-1 | 89 | 12919.2 | 1.1 | | | | ug/L | 10181 | KED |
| | Rh-1 | 103 | 85978.3 | 1.7 | | | | ug/L | 75249 | KED |
| | In-1 | 115 | 8605.1 | 1.8 | | | | ug/L | 6581 | KED |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| > | 72 | Ge | | 131.655 |
| | 75 | As | | |
| | 75 | As-1 | | |
| | 77 | Se | | |
| | 78 | Se | | |
| | 79 | Br | | |
| | 82 | Se | | |
| | 83 | Kr | | |
| | 89 | Y | | |
| | 103 | Rh | | |
| > | 115 | In | | 106.713 |
| | 135 | Ba | | |
| | 137 | Ba | | |
| > | 159 | Tb | | 102.127 |
| | 165 | Ho | | |
| | 208 | Pb | | |
| | 209 | Bi | | |

| | |
|---|---|
| 232Th | |
| 72Ge-1 | 118.745 |
| 75As-2 | |
| 89Y-1 | |
| 103Rh-1 | |
| 115In-1 | |

# Dataset Report

KDM
10-31-19

User Name: kmckinney
Computer Name: ONSITE2014A
Dataset File Path: C:\NexION Data\DataSet\X191031C\
Report Date/Time: Thursday, October 31, 2019 14:38:23

## The Dataset

| Batch ID | Sample ID | Date and Time | Read Type | Samp. File Name | Description |
|---|---|---|---|---|---|
| | Blank | 13:06:11 Thu 31-O | Blank | C:\NexION Data\DataSet\X191031C\Blank.001 | |
| | Standard 2 | 13:08:14 Thu 31-O | Standard #2 | C:\NexION Data\DataSet\X191031C\Standard 2.002 | |
| | Standard 5 | 13:10:16 Thu 31-O | Standard #5 | C:\NexION Data\DataSet\X191031C\Standard 5.003 | |
| | Standard 6 | 13:12:19 Thu 31-O | Standard #6 | C:\NexION Data\DataSet\X191031C\Standard 6.004 | |
| | Standard 7 | 13:14:22 Thu 31-O | Standard #7 | C:\NexION Data\DataSet\X191031C\Standard 7.005 | |
| | QC Std 1 | 13:17:14 Thu 31-O | QC Std #1 | C:\NexION Data\DataSet\X191031C\QC Std 1.006 | |
| | QC Std 2 | 13:20:06 Thu 31-O | QC Std #2 | C:\NexION Data\DataSet\X191031C\QC Std 2.007 | |
| | QC Std 4 | 13:22:09 Thu 31-O | QC Std #4 | C:\NexION Data\DataSet\X191031C\QC Std 4.008 | |
| | QC Std 6 | 13:25:02 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031C\QC Std 6.009 | |
| | QC Std 8 | 13:27:54 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031C\QC Std 8.010 | |
| | ICSA | 13:29:56 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\ICSA.011 | |
| | ICSAB | 13:42:31 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\ICSAB.012 | |
| | MB1031SH1 25X | 13:48:33 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\MB1031SH1 25X.013 | |
| | SB1031SH1 25X | 13:51:24 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\SB1031SH1 25X.014 | |
| | 10-388-04a 25X | 13:54:15 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-04a 25X.015 | |
| | 10-388-04aD 25X | 13:57:05 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-04aD 25X.016 | |
| | 10-388-04aL 125X | 13:59:57 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-04aL 125X.017 | |
| | 10-388-04aMS 25X | 14:02:50 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-04aMS 25X.018 | |
| | 10-388-04aMSD 25X | 14:05:42 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-04aMSD 25X.019 | |
| | 10-388-04aPS 25X | 14:08:35 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-04aPS 25X.020 | |
| | QC Std 6 | 14:11:26 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031C\QC Std 6.021 | |
| | QC Std 8 | 14:14:19 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031C\QC Std 8.022 | |
| | 10-388-01 25X | 14:17:29 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-01 25X.023 | |
| | 10-388-02 25X | 14:20:21 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-02 25X.024 | |
| | 10-388-03 25X | 14:23:13 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-03 25X.025 | |
| | 10-388-05 25X | 14:26:05 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-05 25X.026 | |
| | 10-388-06 25X | 14:28:57 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-06 25X.027 | |
| | 10-388-07 25X | 14:31:49 Thu 31-O | Sample | C:\NexION Data\DataSet\X191031C\10-388-07 25X.028 | |
| | QC Std 6 | 14:34:41 Thu 31-O | QC Std #6 | C:\NexION Data\DataSet\X191031C\QC Std 6.029 | |
| | QC Std 8 | 14:37:33 Thu 31-O | QC Std #8 | C:\NexION Data\DataSet\X191031C\QC Std 8.030 | |

# Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

| Analyte | Mass | Curve Type | Slope | Intercept | Corr. Coeff. |
|---|---|---|---|---|---|
| Ge | 71.922 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Y | 88.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Rh | 102.905 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |
| Ag | 106.905 | Linear Thru Zero | 0.03 | 0.00 | 0.999847 |
| In | 114.904 | Linear Thru Zero | 0.00 | 0.00 | 0.000000 |

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Thursday, October 31, 2019 13:06:11
Report Date/Time: Thursday, October 31, 2019 13:36:57
Solution Type: Blank
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 172065.8 | 2.5 | | | | ug/L | | Standard |
| | Y | 89 | 308435.3 | 2.1 | | | | ug/L | | Standard |
| > | Rh | 103 | 293223.7 | 2.6 | | | | ug/L | | Standard |
| | Ag | 107 | 248.0 | 4.2 | | | | ug/L | | Standard |
| | In | 115 | 497820.7 | 2.6 | | | | ug/L | | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Thursday, October 31, 2019 13:08:14
Report Date/Time: Thursday, October 31, 2019 13:37:02
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 167737.9 | 1.8 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 293958.8 | 1.7 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 278661.5 | 1.1 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 4080.2 | 1.7 | **0.8441** | 0.016 | 1.9 | ug/L | 248 | Standard |
| | **In** | 115 | 492048.4 | 0.6 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 5

Sample Date/Time: Thursday, October 31, 2019 13:10:16
Report Date/Time: Thursday, October 31, 2019 13:37:04
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 165782.6 | 2.0 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 295099.0 | 2.2 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 276858.2 | 2.6 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 152564.8 | 1.5 | **32.8930** | 0.363 | 1.1 | ug/L | 248 | Standard |
| | In | 115 | 476974.0 | 1.1 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**
Sample Date/Time: Thursday, October 31, 2019 13:12:19
Report Date/Time: Thursday, October 31, 2019 13:37:06
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 164429.0 | 1.5 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 293499.5 | 2.1 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 285930.4 | 5.4 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 311657.1 | 3.9 | **59.7957** | 1.103 | 1.8 | ug/L | 248 | Standard |
| | **In** | 115 | 485405.0 | 2.3 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: Standard 7

Sample Date/Time: Thursday, October 31, 2019 13:14:22
Report Date/Time: Thursday, October 31, 2019 13:37:07
Solution Type: Standard
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 162163.5 | 2.1 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 285651.1 | 3.9 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 274957.7 | 2.3 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 787317.0 | 2.2 | **100.7795** | 0.926 | 0.9 | ug/L | 248 | Standard |
| | **In** | 115 | 479625.1 | 0.8 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 1

Sample Date/Time: Thursday, October 31, 2019 13:17:14
Report Date/Time: Thursday, October 31, 2019 13:37:09
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 171928.1 | 0.9 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 307918.9 | 1.4 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 299476.5 | 0.4 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 440109.1 | 1.2 | **51.7072** | 0.668 | 1.3 | ug/L | 248 | Standard |
| | **In** | 115 | 509687.9 | 1.1 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 102.132 |
| ⌊ | 107 | Ag | 103.414 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Thursday, October 31, 2019 13:20:06
Report Date/Time: Thursday, October 31, 2019 13:37:14
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 170919.8 | 1.1 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 304905.6 | 2.9 | | | | ug/L | 308435 | Standard |
| ⌈> | Rh | 103 | 291638.3 | 4.1 | | | | ug/L | 293224 | Standard |
| ⌊ | Ag | 107 | 798.4 | 2.6 | 0.0666 | 0.002 | 3.3 | ug/L | 248 | Standard |
| | In | 115 | 494613.7 | 0.7 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 99.459 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 4

Sample Date/Time: Thursday, October 31, 2019 13:22:09
Report Date/Time: Thursday, October 31, 2019 13:37:18
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 165351.2 | 1.1 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 291997.3 | 1.2 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 277391.6 | 0.6 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 4273.0 | 1.0 | **0.5125** | 0.006 | 1.1 | ug/L | 248 | Standard |
| | In | 115 | 479876.9 | 1.8 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 94.601 |
| | 107 | Ag | 102.505 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 31, 2019 13:25:02
Report Date/Time: Thursday, October 31, 2019 13:37:23
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 167842.3 | 2.6 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 298106.1 | 2.5 | | | | ug/L | 308435 | Standard |
| > | **Rh** | 103 | 285636.4 | 2.0 | | | | ug/L | 293224 | Standard |
| | **Ag** | 107 | 317517.1 | 2.0 | **39.1051** | 0.406 | 1.0 | ug/L | 248 | Standard |
| | **In** | 115 | 486454.7 | 0.4 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 97.412 |
| | 107 | Ag | 97.763 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 31, 2019 13:27:54
Report Date/Time: Thursday, October 31, 2019 13:37:28
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 170502.5 | 0.8 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 305286.7 | 3.0 | | | | ug/L | 308435 | Standard |
| > | **Rh** | 103 | 290926.9 | 3.8 | | | | ug/L | 293224 | Standard |
| | **Ag** | 107 | 664.3 | 7.8 | **0.0509** | 0.009 | 18.5 | ug/L | 248 | Standard |
| | **In** | 115 | 498477.4 | 1.3 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 99.217 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSA

Sample Date/Time: Thursday, October 31, 2019 13:29:56
Report Date/Time: Thursday, October 31, 2019 13:37:33
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 145087.8 | 1.4 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 259648.7 | 2.0 | | | | ug/L | 308435 | Standard |
| > | **Rh** | 103 | 225383.7 | 0.6 | | | | ug/L | 293224 | Standard |
| | **Ag** | 107 | 383.7 | 3.6 | **0.0301** | 0.002 | 6.0 | ug/L | 248 | Standard |
| | **In** | 115 | 411977.1 | 1.9 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 76.864 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: ICSAB

Sample Date/Time: Thursday, October 31, 2019 13:42:31
Report Date/Time: Thursday, October 31, 2019 13:43:02
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 149622.8 | 0.5 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 276947.9 | 0.9 | | | | ug/L | 308435 | Standard |
| ⌈> | Rh | 103 | 252129.3 | 1.2 | | | | ug/L | 293224 | Standard |
| ⌊ | Ag | 107 | 232363.5 | 2.2 | **32.4149** | 0.617 | 1.9 | ug/L | 248 | Standard |
| | In | 115 | 437204.9 | 1.2 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 85.985 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: MB1031SH1 25X

Sample Date/Time: Thursday, October 31, 2019 13:48:33
Report Date/Time: Thursday, October 31, 2019 13:49:03
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 182611.4 | 0.5 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 277850.1 | 0.5 | | | | ug/L | 308435 | Standard |
| ⌈> | Rh | 103 | 231276.4 | 1.5 | | | | ug/L | 293224 | Standard |
| ⌊ | Ag | 107 | 1179.4 | 2.2 | **0.1497** | 0.001 | 1.0 | ug/L | 248 | Standard |
| | In | 115 | 590186.7 | 0.5 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 78.874 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

**Sample ID: SB1031SH1 25X**

Sample Date/Time: Thursday, October 31, 2019 13:51:24
Report Date/Time: Thursday, October 31, 2019 13:51:54
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 181705.3 | 0.5 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 281073.0 | 1.0 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 236782.9 | 0.5 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 123798.8 | 1.0 | **18.3761** | 0.092 | 0.5 | ug/L | 248 | Standard |
| | **In** | 115 | 566967.6 | 1.1 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 80.752 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04a 25X

Sample Date/Time: Thursday, October 31, 2019 13:54:15
Report Date/Time: Thursday, October 31, 2019 13:54:45
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 184827.0 | 0.0 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 374048.9 | 0.8 | | | | ug/L | 308435 | Standard |
| > | **Rh** | 103 | 226531.0 | 3.9 | | | | ug/L | 293224 | Standard |
| | **Ag** | 107 | 1228.7 | 6.3 | **0.1614** | 0.016 | 9.8 | ug/L | 248 | Standard |
| | **In** | 115 | 575196.8 | 1.7 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 77.255 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aD 25X

Sample Date/Time: Thursday, October 31, 2019 13:57:05
Report Date/Time: Thursday, October 31, 2019 13:57:36
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 182641.5 | 1.1 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 371347.6 | 1.5 | | | | ug/L | 308435 | Standard |
| ⌈> | Rh | 103 | 219612.9 | 0.4 | | | | ug/L | 293224 | Standard |
| ⌊ | Ag | 107 | 911.4 | 2.8 | 0.1163 | 0.004 | 3.7 | ug/L | 248 | Standard |
| | In | 115 | 560752.1 | 1.1 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 74.896 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aL 125X

Sample Date/Time: Thursday, October 31, 2019 13:59:57
Report Date/Time: Thursday, October 31, 2019 14:00:29
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 170339.6 | 2.4 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 303144.4 | 0.7 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 260745.5 | 1.7 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 332.7 | 2.3 | 0.0151 | 0.001 | 3.5 | ug/L | 248 | Standard |
| | In | 115 | 485921.0 | 1.3 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 88.924 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aMS 25X

Sample Date/Time: Thursday, October 31, 2019 14:02:50
Report Date/Time: Thursday, October 31, 2019 14:03:21
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 176107.2 | 0.9 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 363641.2 | 1.3 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 224499.2 | 1.5 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 116407.5 | 1.9 | **18.2244** | 0.209 | 1.1 | ug/L | 248 | Standard |
| | In | 115 | 554135.7 | 2.3 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 76.562 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aMSD 25X

Sample Date/Time: Thursday, October 31, 2019 14:05:42
Report Date/Time: Thursday, October 31, 2019 14:06:14
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 173191.5 | 0.6 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 357073.0 | 2.0 | | | | ug/L | 308435 | Standard |
| ⌈> | Rh | 103 | 212508.3 | 2.0 | | | | ug/L | 293224 | Standard |
| ⌊ | Ag | 107 | 110791.3 | 0.3 | **18.3283** | 0.313 | 1.7 | ug/L | 248 | Standard |
| | In | 115 | 537967.3 | 1.9 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 72.473 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-04aPS 25X

Sample Date/Time: Thursday, October 31, 2019 14:08:35
Report Date/Time: Thursday, October 31, 2019 14:09:05
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 167075.7 | 1.0 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 340305.7 | 2.1 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 209817.4 | 1.1 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 229887.2 | 1.5 | **38.5412** | 0.197 | 0.5 | ug/L | 248 | Standard |
| | In | 115 | 516007.0 | 1.4 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 71.555 |
| | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 31, 2019 14:11:26
Report Date/Time: Thursday, October 31, 2019 14:11:57
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 180638.4 | 1.6 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 320216.3 | 4.3 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 310974.9 | 1.2 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 329665.1 | 2.1 | **37.2891** | 0.522 | 1.4 | ug/L | 248 | Standard |
| | **In** | 115 | 489730.8 | 1.8 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 106.054 |
| ⌊ | 107Ag | 93.223 | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 31, 2019 14:14:19
Report Date/Time: Thursday, October 31, 2019 14:14:50
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 184837.1 | 0.2 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 324242.7 | 1.2 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 319851.1 | 1.8 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 909.0 | 6.7 | **0.0703** | 0.006 | 8.4 | ug/L | 248 | Standard |
| | **In** | 115 | 511163.6 | 0.2 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 109.081 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-01 25X

Sample Date/Time: Thursday, October 31, 2019 14:17:29
Report Date/Time: Thursday, October 31, 2019 14:17:59
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 184794.2 | 0.8 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 481502.0 | 0.7 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 235182.1 | 0.7 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 2086.5 | 2.8 | **0.2825** | 0.007 | 2.6 | ug/L | 248 | Standard |
| | **In** | 115 | 561006.8 | 2.7 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 80.206 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-02 25X

Sample Date/Time: Thursday, October 31, 2019 14:20:21
Report Date/Time: Thursday, October 31, 2019 14:20:52
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION\Data\Sample\X191031C.sam
Method File: C:\NexION\Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 190382.3 | 3.1 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 377549.2 | 3.8 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 243848.0 | 3.3 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 13794.0 | 1.7 | 1.9624 | 0.034 | 1.7 | ug/L | 248 | Standard |
| | In | 115 | 574923.5 | 0.9 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 83.161 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

**Sample ID: 10-388-03 25X**

Sample Date/Time: Thursday, October 31, 2019 14:23:13
Report Date/Time: Thursday, October 31, 2019 14:23:44
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

## Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 193014.9 | 1.1 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 450029.8 | 0.8 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 246636.9 | 0.6 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 3238.4 | 1.8 | **0.4325** | 0.010 | 2.4 | ug/L | 248 | Standard |
| | **In** | 115 | 572326.8 | 0.9 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| ⌈> | 103Rh | | 84.112 |
| ⌊ | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-05 25X

Sample Date/Time: Thursday, October 31, 2019 14:26:05
Report Date/Time: Thursday, October 31, 2019 14:26:35
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 187671.4 | 0.9 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 434144.4 | 0.8 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 233672.6 | 1.6 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 4347.7 | 1.7 | **0.6255** | 0.021 | 3.4 | ug/L | 248 | Standard |
| | In | 115 | 576652.2 | 0.7 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 79.691 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-06 25X

Sample Date/Time: Thursday, October 31, 2019 14:28:57
Report Date/Time: Thursday, October 31, 2019 14:29:28
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 198064.7 | 2.1 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 384701.7 | 3.0 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 251088.0 | 1.5 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 6663.6 | 1.6 | **0.9045** | 0.002 | 0.2 | ug/L | 248 | Standard |
| | **In** | 115 | 593725.5 | 0.6 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 85.630 |
| ⌊ | 107 | Ag | | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: 10-388-07 25X

Sample Date/Time: Thursday, October 31, 2019 14:31:49
Report Date/Time: Thursday, October 31, 2019 14:32:19
Solution Type: Sample
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 183102.3 | 0.6 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 374979.1 | 1.6 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 231417.7 | 2.4 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 14288.8 | 1.0 | **2.1444** | 0.033 | 1.6 | ug/L | 248 | Standard |
| | In | 115 | 556925.1 | 0.7 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|
| | 72Ge | | |
| | 89Y | | |
| > | 103Rh | | 78.922 |
| | 107Ag | | |
| | 115In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 6

Sample Date/Time: Thursday, October 31, 2019 14:34:41
Report Date/Time: Thursday, October 31, 2019 14:35:12
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Ge** | 72 | 179958.5 | 1.1 | | | | ug/L | 172066 | Standard |
| | **Y** | 89 | 315822.3 | 0.7 | | | | ug/L | 308435 | Standard |
| ⌈> | **Rh** | 103 | 310735.5 | 1.3 | | | | ug/L | 293224 | Standard |
| ⌊ | **Ag** | 107 | 344457.3 | 1.5 | **38.9967** | 0.526 | 1.3 | ug/L | 248 | Standard |
| | **In** | 115 | 497904.5 | 1.0 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| ⌈> | 103 | Rh | | 105.972 |
| ⌊ | 107 | Ag | 97.492 | |
| | 115 | In | | |

# Quantitative Analysis - Summary Report

## Sample ID: QC Std 8

Sample Date/Time: Thursday, October 31, 2019 14:37:33
Report Date/Time: Thursday, October 31, 2019 14:38:04
Solution Type: QC Std
Sample Type: Sample
Sample Description:
Batch ID:
Sample File: C:\NexION Data\Sample\X191031C.sam
Method File: C:\NexION Data\Method\X191031C2.mth

### Results (Mean Data)

| IS | Analyte | Mass | Intensity | RSD | Conc. | SD | RSD | Units | Blank Intens. | Mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ge | 72 | 188450.1 | 1.7 | | | | ug/L | 172066 | Standard |
| | Y | 89 | 339326.6 | 1.0 | | | | ug/L | 308435 | Standard |
| > | Rh | 103 | 320660.8 | 3.5 | | | | ug/L | 293224 | Standard |
| | Ag | 107 | 782.4 | 3.1 | 0.0561 | 0.002 | 2.9 | ug/L | 248 | Standard |
| | In | 115 | 504327.7 | 0.5 | | | | ug/L | 497821 | Standard |

## QC Calculated Values

| Internal Standard Symbol | Mass | Analyt | QC Std % Recov | Int Std % Recovery |
|---|---|---|---|---|
| | 72 | Ge | | |
| | 89 | Y | | |
| > | 103 | Rh | | 109.357 |
| | 107 | Ag | | |
| | 115 | In | | |

# APPENDIX D
## Disposal Documentation

| Date | Manifest # | Ticket # | Material | Facility | Tons/Tonnes | Material Unit |
|---|---|---|---|---|---|---|
| 9/24/2019 | 114473wa | 848008 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.12 | TON |
| 9/24/2019 | 114473wa | 848009 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.57 | TON |
| 9/24/2019 | 114473wa | 848021 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.41 | TON |
| 9/24/2019 | 114473wa | 848025 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.09 | TON |
| 9/24/2019 | 114473wa | 848034 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.32 | TON |
| 9/24/2019 | 114473wa | 848037 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.26 | TON |
| 9/24/2019 | 114473wa | 848038 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.3 | TON |
| 9/24/2019 | 114473wa | 848043 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.35 | TON |
| 9/24/2019 | 114473wa | 848053 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.21 | TON |
| 9/24/2019 | 114473wa | 848056 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.79 | TON |
| 9/24/2019 | 114473wa | 848060 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.5 | TON |
| 9/24/2019 | 114473wa | 848061 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.9 | TON |
| 9/24/2019 | 114473wa | 848077 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.02 | TON |
| 9/24/2019 | 114473wa | 848081 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.86 | TON |
| 9/24/2019 | 114473wa | 848086 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.1 | TON |
| 9/24/2019 | 114473wa | 848089 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.51 | TON |
| 9/24/2019 | 114473wa | 848101 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.86 | TON |
| 9/24/2019 | 114473wa | 848105 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.78 | TON |
| 9/24/2019 | 114473wa | 848108 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.08 | TON |
| 9/24/2019 | 114473wa | 848112 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.09 | TON |
| 9/24/2019 | 114473wa | 848125 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.16 | TON |
| 9/24/2019 | 114473wa | 848131 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.25 | TON |
| 9/24/2019 | 114473wa | 848132 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.38 | TON |
| 9/24/2019 | 114473wa | 848134 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.23 | TON |
| 9/24/2019 | 114473wa | 848153 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.13 | TON |
| 9/24/2019 | 114473wa | 848161 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.27 | TON |
| 9/24/2019 | 114473wa | 848164 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.21 | TON |
| 9/24/2019 | 114473wa | 848165 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.48 | TON |
| 9/24/2019 | 114473wa | 848177 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 20.39 | TON |
| 9/25/2019 | 114473wa | 848180 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.17 | TON |
| 9/25/2019 | 114473wa | 848181 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.56 | TON |
| 9/25/2019 | 114473wa | 848190 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.69 | TON |
| 9/25/2019 | 114473wa | 848192 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.55 | TON |
| 9/25/2019 | 114473wa | 848194 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 19.39 | TON |
| 9/25/2019 | 114473wa | 848195 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.83 | TON |
| 9/25/2019 | 114473wa | 848199 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.66 | TON |
| 9/25/2019 | 114473wa | 848200 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.58 | TON |
| 9/25/2019 | 114473wa | 848208 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.54 | TON |
| 9/25/2019 | 114473wa | 848209 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.37 | TON |
| 9/25/2019 | 114473wa | 848216 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.21 | TON |
| 9/25/2019 | 114473wa | 848217 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.63 | TON |
| 9/25/2019 | 114473wa | 848218 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.16 | TON |
| 9/25/2019 | 114473wa | 848221 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.84 | TON |
| 9/25/2019 | 114473wa | 848225 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.15 | TON |
| 9/25/2019 | 114473wa | 848234 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.9 | TON |
| 9/25/2019 | 114473wa | 848238 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.15 | TON |
| 9/25/2019 | 114473wa | 848241 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 19.42 | TON |
| 9/25/2019 | 114473wa | 848242 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.57 | TON |
| 9/25/2019 | 114473wa | 848250 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.65 | TON |
| 9/25/2019 | 114473wa | 848253 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 6.78 | TON |
| 9/25/2019 | 114473wa | 848257 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.1 | TON |
| 9/25/2019 | 114473wa | 848265 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.38 | TON |
| 9/25/2019 | 114473wa | 848266 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.39 | TON |
| 9/25/2019 | 114473wa | 848270 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.54 | TON |
| 9/25/2019 | 114473wa | 848272 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.96 | TON |
| 9/25/2019 | 114473wa | 848275 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.54 | TON |
| 9/25/2019 | 114473wa | 848280 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.48 | TON |
| 9/25/2019 | 114473wa | 848291 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.19 | TON |
| 9/25/2019 | 114473wa | 848298 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.86 | TON |
| 9/25/2019 | 114473wa | 848303 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.28 | TON |
| 9/25/2019 | 114473wa | 848304 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.15 | TON |

| | | | | |
|---|---|---|---|---|
| 9/25/2019 | 114473wa | 848305 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.54 TON |
| 9/25/2019 | 114473wa | 848310 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.87 TON |
| 9/25/2019 | 114473WA | 848316 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.35 TON |
| 9/25/2019 | 114473WA | 848332 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.39 TON |
| 9/25/2019 | 114473wa | 848334 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.41 TON |
| 9/25/2019 | 114473WA | 848343 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.75 TON |
| 9/25/2019 | 114473wa | 848348 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.8 TON |
| 9/25/2019 | 114473wa | 848350 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.69 TON |
| 9/25/2019 | 114473wa | 848358 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.74 TON |
| 9/25/2019 | 114473wa | 848361 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.1 TON |
| 9/25/2019 | 114473wa | 848368 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.56 TON |
| 9/25/2019 | 114473wa | 848375 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.31 TON |
| 9/25/2019 | 114473WA | 848376 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.28 TON |
| 10/1/2019 | 114473wa | 848987 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.43 TON |
| 10/1/2019 | 114473wa | 848988 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.97 TON |
| 10/1/2019 | 114473wa | 848989 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.93 TON |
| 10/1/2019 | 114473wa | 848992 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.36 TON |
| 10/1/2019 | 114473wa | 849004 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.33 TON |
| 10/1/2019 | 114473wa | 849008 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.44 TON |
| 10/1/2019 | 114473wa | 849011 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.01 TON |
| 10/1/2019 | 114473wa | 849012 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.61 TON |
| 10/1/2019 | 114473wa | 849021 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.14 TON |
| 10/1/2019 | 114473wa | 849025 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.53 TON |
| 10/1/2019 | 114473wa | 849027 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.71 TON |
| 10/1/2019 | 114473wa | 849031 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.85 TON |
| 10/1/2019 | 114473wa | 849036 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.05 TON |
| 10/1/2019 | 114473wa | 849041 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.89 TON |
| 10/1/2019 | 114473wa | 849056 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.29 TON |
| 10/1/2019 | 114473wa | 849060 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.32 TON |
| 10/1/2019 | 114473wa | 849063 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.21 TON |
| 10/1/2019 | 114473WA | 849073 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.47 TON |
| 10/1/2019 | 114473wa | 849088 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.54 TON |
| 10/1/2019 | 114473wa | 849089 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.88 TON |
| 10/1/2019 | 114473wa | 849091 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.19 TON |
| 10/1/2019 | 114473wa | 849094 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.36 TON |
| 10/1/2019 | 114473wa | 849115 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.27 TON |
| 10/1/2019 | 114473wa | 849117 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.8 TON |
| 10/1/2019 | 114473wa | 849119 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.65 TON |
| 10/1/2019 | 114473WA | 849123 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.5 TON |
| 10/1/2019 | 114473w | 849134 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.65 TON |
| 10/1/2019 | 114473wa | 849142 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.95 TON |
| 10/1/2019 | 114473wa | 849145 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.63 TON |
| 10/1/2019 | 114473wa | 849147 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.34 TON |
| 10/1/2019 | 114473wa | 849148 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.91 TON |
| 10/1/2019 | 114473wa | 849155 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.05 TON |
| 10/1/2019 | 114473wa | 849164 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.16 TON |
| 10/1/2019 | 114473wa | 849165 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.2 TON |
| 10/1/2019 | 114473wa | 849166 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.48 TON |
| 10/1/2019 | 114473wa | 849168 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.89 TON |
| 10/2/2019 | 114473wa | 849178 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.82 TON |
| 10/2/2019 | 114473wa | 849180 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.67 TON |
| 10/2/2019 | 114473wa | 849184 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.39 TON |
| 10/2/2019 | 114473wa | 849185 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.59 TON |
| 10/2/2019 | 114473wa | 849187 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.45 TON |
| 10/2/2019 | 114473wa | 849197 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.98 TON |
| 10/2/2019 | 114473wa | 849198 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.69 TON |
| 10/2/2019 | 114473wa | 849201 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.29 TON |
| 10/2/2019 | 114473wa | 849203 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.25 TON |
| 10/2/2019 | 114473wa | 849208 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.77 TON |
| 10/2/2019 | 114473wa | 849215 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.06 TON |
| 10/2/2019 | 114473wa | 849218 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.18 TON |
| 10/2/2019 | 114473wa | 849221 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.77 TON |

| | | | | |
|---|---|---|---|---|
| 10/2/2019 | 114473wa | 849223 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.66 TON |
| 10/2/2019 | 114473wa | 849227 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.92 TON |
| 10/2/2019 | 114473wa | 849232 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.15 TON |
| 10/2/2019 | 114473wa | 849234 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.52 TON |
| 10/2/2019 | 114473wa | 849237 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.98 TON |
| 10/2/2019 | 114473wa | 849238 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.67 TON |
| 10/2/2019 | 114473wa | 849254 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.89 TON |
| 10/2/2019 | 114473wa | 849258 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.06 TON |
| 10/2/2019 | 114473wa | 849262 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.64 TON |
| 10/2/2019 | 114473wa | 849265 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.59 TON |
| 10/2/2019 | 114473wa | 849268 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.45 TON |
| 10/2/2019 | 114473wa | 849280 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.6 TON |
| 10/2/2019 | 114473wa | 849281 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.35 TON |
| 10/2/2019 | 114473wa | 849282 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.43 TON |
| 10/2/2019 | 114473wa | 849288 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.13 TON |
| 10/2/2019 | 114473wa | 849290 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.01 TON |
| 10/2/2019 | 114473wa | 849306 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.63 TON |
| 10/2/2019 | 114473wa | 849307 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.56 TON |
| 10/2/2019 | 114473wa | 849311 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.16 TON |
| 10/2/2019 | 114473wa | 849315 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.35 TON |
| 10/2/2019 | 114473wa | 849317 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.52 TON |
| 10/2/2019 | 114473wa | 849340 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.59 TON |
| 10/2/2019 | 114473wa | 849341 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.82 TON |
| 10/2/2019 | 114473wa | 849343 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.78 TON |
| 10/2/2019 | 114473wa | 849346 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.6 TON |
| 10/2/2019 | 114473wa | 849348 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.22 TON |
| 10/2/2019 | 114473wa | 849364 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.85 TON |
| 10/2/2019 | 114473wa | 849368 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.83 TON |
| 10/2/2019 | 114473wa | 849373 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.17 TON |
| 10/2/2019 | 114473wa | 849376 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.14 TON |
| 10/2/2019 | 114473wa | 849377 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.47 TON |
| 10/3/2019 | 114473wa | 849392 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.9 TON |
| 10/3/2019 | 114473wa | 849393 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.66 TON |
| 10/3/2019 | 114473wa | 849394 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.03 TON |
| 10/3/2019 | 114473wa | 849395 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.09 TON |
| 10/3/2019 | 114473wa | 849398 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.24 TON |
| 10/3/2019 | 114473wa | 849402 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.68 TON |
| 10/3/2019 | 114473wa | 849406 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.28 TON |
| 10/3/2019 | 114473wa | 849409 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.92 TON |
| 10/3/2019 | 114473wa | 849412 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.51 TON |
| 10/3/2019 | 114473wa | 849415 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.18 TON |
| 10/3/2019 | 114473wa | 849422 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.33 TON |
| 10/3/2019 | 114473wa | 849423 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.33 TON |
| 10/3/2019 | 114473wa | 849425 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.97 TON |
| 10/3/2019 | 114473wa | 849431 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.03 TON |
| 10/3/2019 | 114473wa | 849434 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.1 TON |
| 10/3/2019 | 114473wa | 849441 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.52 TON |
| 10/3/2019 | 114473wa | 849443 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.17 TON |
| 10/3/2019 | 114473wa | 849450 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.36 TON |
| 10/3/2019 | 114473wa | 849458 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.34 TON |
| 10/3/2019 | 114473wa | 849461 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.68 TON |
| 10/3/2019 | 114473wa | 849464 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.69 TON |
| 10/3/2019 | 114473wa | 849465 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.16 TON |
| 10/3/2019 | 114473wa | 849471 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.33 TON |
| 10/3/2019 | 114473wa | 849484 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.62 TON |
| 10/3/2019 | 114473wa | 849490 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.3 TON |
| 10/3/2019 | 114473wa | 849493 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.26 TON |
| 10/3/2019 | 114473wa | 849497 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.01 TON |
| 10/3/2019 | 114473wa | 849500 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.99 TON |
| 10/3/2019 | 114473WA | 849511 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.36 TON |
| 10/3/2019 | 114473wa | 849519 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.02 TON |
| 10/3/2019 | 114473wa | 849521 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.01 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/3/2019 | 114473wa | 849522 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.01 TON |
| 10/3/2019 | 114473wa | 849524 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.88 TON |
| 10/3/2019 | 114473wa | 849538 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.88 TON |
| 10/3/2019 | 114473wa | 849542 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.19 TON |
| 10/3/2019 | 114473wa | 849543 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.98 TON |
| 10/3/2019 | 114473wa | 849545 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.56 TON |
| 10/3/2019 | 114473wa | 849547 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.47 TON |
| 10/3/2019 | 114473wa | 849565 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.28 TON |
| 10/3/2019 | 114473wa | 849568 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.53 TON |
| 10/3/2019 | 114473wa | 849569 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.02 TON |
| 10/3/2019 | 114473wa | 849573 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.2 TON |
| 10/3/2019 | 114473wa | 849575 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.12 TON |
| 10/3/2019 | 114473wa | 849583 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.63 TON |
| 10/4/2019 | 114473wa | 849592 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.16 TON |
| 10/4/2019 | 114473wa | 849594 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.11 TON |
| 10/4/2019 | 114473wa | 849596 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.33 TON |
| 10/4/2019 | 114473wa | 849597 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.95 TON |
| 10/4/2019 | 114473wa | 849598 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.61 TON |
| 10/4/2019 | 114473wa | 849608 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.48 TON |
| 10/4/2019 | 114473wa | 849609 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.65 TON |
| 10/4/2019 | 114473wa | 849611 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.91 TON |
| 10/4/2019 | 114473wa | 849615 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.89 TON |
| 10/4/2019 | 114473wa | 849617 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.98 TON |
| 10/4/2019 | 114473wa | 849621 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.88 TON |
| 10/4/2019 | 114473wa | 849622 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.68 TON |
| 10/4/2019 | 114473wa | 849627 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.91 TON |
| 10/4/2019 | 114473wa | 849631 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.65 TON |
| 10/4/2019 | 114473wa | 849634 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.55 TON |
| 10/4/2019 | 114473wa | 849636 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.39 TON |
| 10/4/2019 | 114473wa | 849638 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.98 TON |
| 10/4/2019 | 114473wa | 849650 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.36 TON |
| 10/4/2019 | 114473wa | 849652 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.58 TON |
| 10/4/2019 | 114473wa | 849654 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.85 TON |
| 10/4/2019 | 114473wa | 849662 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17 TON |
| 10/4/2019 | 114473wa | 849672 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.74 TON |
| 10/4/2019 | 114473wa | 849677 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.6 TON |
| 10/4/2019 | 114473wa | 849680 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.64 TON |
| 10/4/2019 | 114473wa | 849684 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.79 TON |
| 10/4/2019 | 114473wa | 849693 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.4 TON |
| 10/4/2019 | 114473wa | 849698 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.12 TON |
| 10/4/2019 | 114473wa | 849706 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.08 TON |
| 10/4/2019 | 114473wa | 849707 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.61 TON |
| 10/4/2019 | 114473wa | 849709 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.77 TON |
| 10/4/2019 | 114473wa | 849712 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.99 TON |
| 10/4/2019 | 114473wa | 849718 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.88 TON |
| 10/4/2019 | 114473wa | 849720 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.56 TON |
| 10/4/2019 | 114473wa | 849724 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.18 TON |
| 10/4/2019 | 114473wa | 849728 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.5 TON |
| 10/4/2019 | 114473wa | 849729 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.82 TON |
| 10/4/2019 | 114473wa | 849738 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.3 TON |
| 10/4/2019 | 114473wa | 849741 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.87 TON |
| 10/4/2019 | 114473wa | 849745 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.29 TON |
| 10/4/2019 | 114473wa | 849752 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.94 TON |
| 10/4/2019 | 114473wa | 849753 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.43 TON |
| 10/4/2019 | 114473wa | 849765 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.95 TON |
| 10/4/2019 | 114473wa | 849767 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.25 TON |
| 10/7/2019 | 114473wa | 850148 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.21 TON |
| 10/7/2019 | 114473wa | 850151 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.97 TON |
| 10/7/2019 | 114473wa | 850154 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.35 TON |
| 10/7/2019 | 114473wa | 850156 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.49 TON |
| 10/7/2019 | 114473wa | 850163 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.51 TON |
| 10/7/2019 | 114473wa | 850164 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.99 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/7/2019 | 114473wa | 850166 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.68 TON |
| 10/7/2019 | 114473wa | 850167 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.99 TON |
| 10/7/2019 | 114473wa | 850181 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.94 TON |
| 10/7/2019 | 114473wa | 850182 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.3 TON |
| 10/7/2019 | 114473wa | 850185 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.87 TON |
| 10/7/2019 | 114473wa | 850187 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.78 TON |
| 10/7/2019 | 114473wa | 850195 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.34 TON |
| 10/7/2019 | 114473wa | 850198 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.54 TON |
| 10/7/2019 | 114473wa | 850201 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.7 TON |
| 10/7/2019 | 114473wa | 850207 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.96 TON |
| 10/7/2019 | 114473wa | 850214 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.59 TON |
| 10/7/2019 | 114473wa | 850218 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.7 TON |
| 10/7/2019 | 114473wa | 850220 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.71 TON |
| 10/7/2019 | 114473wa | 850221 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.96 TON |
| 10/7/2019 | 114473wa | 850243 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.93 TON |
| 10/7/2019 | 114473wa | 850244 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.78 TON |
| 10/7/2019 | 114473wa | 850248 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 19.78 TON |
| 10/7/2019 | 114473wa | 850251 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.54 TON |
| 10/7/2019 | 114473wa | 850266 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 20.46 TON |
| 10/7/2019 | 114473wa | 850267 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.83 TON |
| 10/7/2019 | 114473wa | 850271 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.36 TON |
| 10/7/2019 | 114473wa | 850273 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.74 TON |
| 10/7/2019 | 114473wa | 850290 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.26 TON |
| 10/7/2019 | 114473wa | 850292 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.46 TON |
| 10/7/2019 | 114473wa | 850293 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.76 TON |
| 10/7/2019 | 114473wa | 850296 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.53 TON |
| 10/7/2019 | 114473wa | 850315 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.68 TON |
| 10/7/2019 | 114473wa | 850316 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.95 TON |
| 10/7/2019 | 114473wa | 850317 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.46 TON |
| 10/7/2019 | 114473wa | 850318 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.56 TON |
| 10/8/2019 | 114473wa | 850323 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.77 TON |
| 10/8/2019 | 114473wa | 850324 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.47 TON |
| 10/8/2019 | 114473wa | 850332 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13 TON |
| 10/8/2019 | 114473wa | 850341 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.66 TON |
| 10/8/2019 | 114473wa | 850342 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.63 TON |
| 10/8/2019 | 114473wa | 850345 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.38 TON |
| 10/8/2019 | 114473wa | 850350 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.13 TON |
| 10/8/2019 | 114473wa | 850353 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.96 TON |
| 10/8/2019 | 114473wa | 850359 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.4 TON |
| 10/8/2019 | 114473wa | 850360 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.97 TON |
| 10/8/2019 | 114473wa | 850361 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.38 TON |
| 10/8/2019 | 114473wa | 850364 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15 TON |
| 10/8/2019 | 114473wa | 850367 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.25 TON |
| 10/8/2019 | 114473wa | 850379 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.72 TON |
| 10/8/2019 | 114473wa | 850380 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.94 TON |
| 10/8/2019 | 114473wa | 850383 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.53 TON |
| 10/8/2019 | 114473wa | 850385 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.24 TON |
| 10/8/2019 | 114473wa | 850388 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.36 TON |
| 10/8/2019 | 114473wa | 850396 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.73 TON |
| 10/8/2019 | 114473wa | 850398 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.05 TON |
| 10/8/2019 | 114473wa | 850401 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.28 TON |
| 10/8/2019 | 114473wa | 850407 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.22 TON |
| 10/8/2019 | 114473wa | 850410 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.2 TON |
| 10/8/2019 | 114473wa | 850417 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.82 TON |
| 10/8/2019 | 114473wa | 850421 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.82 TON |
| 10/8/2019 | 114473wa | 850425 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.96 TON |
| 10/8/2019 | 114473wa | 850428 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.75 TON |
| 10/8/2019 | 114473wa | 850431 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.26 TON |
| 10/8/2019 | 114473wa | 850433 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.38 TON |
| 10/8/2019 | 114473wa | 850437 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.32 TON |
| 10/8/2019 | 114473wa | 850447 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.34 TON |
| 10/8/2019 | 114473wa | 850449 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.93 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/8/2019 | 114473wa | 850452 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.47 TON |
| 10/8/2019 | 114473wa | 850453 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.63 TON |
| 10/8/2019 | 114473wa | 850459 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.71 TON |
| 10/8/2019 | 114473wa | 850463 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.31 TON |
| 10/8/2019 | 114473wa | 850464 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.75 TON |
| 10/8/2019 | 114473wa | 850465 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.62 TON |
| 10/8/2019 | 114473wa | 850467 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.89 TON |
| 10/8/2019 | 114473wa | 850473 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.41 TON |
| 10/8/2019 | 114473wa | 850481 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.37 TON |
| 10/8/2019 | 114473wa | 850484 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.77 TON |
| 10/8/2019 | 114473wa | 850486 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.72 TON |
| 10/8/2019 | 114473wa | 850487 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.96 TON |
| 10/8/2019 | 114473wa | 850490 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.86 TON |
| 10/9/2019 | 114473wa | 850502 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.68 TON |
| 10/9/2019 | 114473wa | 850503 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.66 TON |
| 10/9/2019 | 114473wa | 850512 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.55 TON |
| 10/9/2019 | 114473wa | 850513 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.5 TON |
| 10/9/2019 | 114473wa | 850516 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.93 TON |
| 10/9/2019 | 114473wa | 850520 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.93 TON |
| 10/9/2019 | 114473wa | 850521 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.14 TON |
| 10/9/2019 | 114473wa | 850527 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.68 TON |
| 10/9/2019 | 114473wa | 850528 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.63 TON |
| 10/9/2019 | 114473wa | 850529 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.62 TON |
| 10/9/2019 | 114473wa | 850534 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.14 TON |
| 10/9/2019 | 114473wa | 850547 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.35 TON |
| 10/9/2019 | 114473wa | 850552 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.58 TON |
| 10/9/2019 | 114473wa | 850554 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.93 TON |
| 10/9/2019 | 114473wa | 850555 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.35 TON |
| 10/9/2019 | 114473wa | 850556 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.84 TON |
| 10/9/2019 | 114473wa | 850566 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.83 TON |
| 10/9/2019 | 114473wa | 850569 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.77 TON |
| 10/9/2019 | 114473wa | 850570 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.54 TON |
| 10/9/2019 | 114473wa | 850572 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.09 TON |
| 10/9/2019 | 114473wa | 850575 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.08 TON |
| 10/9/2019 | 114473wa | 850579 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.77 TON |
| 10/9/2019 | 114473wa | 850581 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.1 TON |
| 10/9/2019 | 114473wa | 850582 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.79 TON |
| 10/9/2019 | 114473wa | 850587 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.3 TON |
| 10/9/2019 | 114473wa | 850597 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.63 TON |
| 10/9/2019 | 114473wa | 850600 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.96 TON |
| 10/9/2019 | 114473wa | 850601 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.39 TON |
| 10/9/2019 | 114473wa | 850603 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.61 TON |
| 10/9/2019 | 114473wa | 850606 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.35 TON |
| 10/9/2019 | 114473wa | 850617 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.45 TON |
| 10/9/2019 | 114473wa | 850618 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.89 TON |
| 10/9/2019 | 114473wa | 850621 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.19 TON |
| 10/9/2019 | 114473wa | 850623 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.74 TON |
| 10/9/2019 | 114473wa | 850626 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.8 TON |
| 10/9/2019 | 114473wa | 850637 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.37 TON |
| 10/9/2019 | 114473wa | 850639 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.52 TON |
| 10/9/2019 | 114473wa | 850640 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.68 TON |
| 10/9/2019 | 114473wa | 850641 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.55 TON |
| 10/9/2019 | 114473wa | 850642 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.91 TON |
| 10/9/2019 | 114473wa | 850648 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.52 TON |
| 10/9/2019 | 114473wa | 850651 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.51 TON |
| 10/9/2019 | 114473wa | 850653 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.18 TON |
| 10/9/2019 | 114473wa | 850654 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18 TON |
| 10/9/2019 | 114473wa | 850657 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.96 TON |
| 10/10/2019 | 114473wa | 850663 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.88 TON |
| 10/10/2019 | 114473wa | 850670 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.91 TON |
| 10/10/2019 | 114473wa | 850672 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.39 TON |
| 10/10/2019 | 114473wa | 850673 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.92 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/10/2019 | 114473wa | 850674 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.32 TON |
| 10/10/2019 | 114473wa | 850677 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.05 TON |
| 10/10/2019 | 114473wa | 850682 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.36 TON |
| 10/10/2019 | 114473wa | 850684 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.98 TON |
| 10/10/2019 | 114473wa | 850686 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.01 TON |
| 10/10/2019 | 114473wa | 850687 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.09 TON |
| 10/10/2019 | 114473wa | 850689 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.45 TON |
| 10/10/2019 | 114473wa | 850690 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.09 TON |
| 10/10/2019 | 114473wa | 850694 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.31 TON |
| 10/10/2019 | 114473wa | 850697 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.6 TON |
| 10/10/2019 | 114473wa | 850703 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.11 TON |
| 10/10/2019 | 114473wa | 850706 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.03 TON |
| 10/10/2019 | 114473wa | 850707 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.44 TON |
| 10/10/2019 | 114473wa | 850711 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.96 TON |
| 10/10/2019 | 114473wa | 850713 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.78 TON |
| 10/10/2019 | 114473wa | 850721 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.23 TON |
| 10/10/2019 | 114473wa | 850723 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.61 TON |
| 10/10/2019 | 114473wa | 850729 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.69 TON |
| 10/10/2019 | 114473wa | 850733 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.31 TON |
| 10/10/2019 | 114473wa | 850738 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.66 TON |
| 10/10/2019 | 114473wa | 850742 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.79 TON |
| 10/10/2019 | 114473wa | 850745 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18 TON |
| 10/10/2019 | 114473wa | 850748 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.8 TON |
| 10/10/2019 | 114473wa | 850750 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.24 TON |
| 10/10/2019 | 114473wa | 850756 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.95 TON |
| 10/10/2019 | 114473wa | 850759 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.24 TON |
| 10/10/2019 | 114473wa | 850760 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.44 TON |
| 10/10/2019 | 114473wa | 850765 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.48 TON |
| 10/10/2019 | 114473wa | 850768 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.24 TON |
| 10/10/2019 | 114473wa | 850772 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.67 TON |
| 10/10/2019 | 114473wa | 850774 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.86 TON |
| 10/10/2019 | 114473wa | 850775 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.33 TON |
| 10/10/2019 | 114473wa | 850783 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.7 TON |
| 10/10/2019 | 114473wa | 850785 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.05 TON |
| 10/10/2019 | 114473wa | 850787 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.88 TON |
| 10/10/2019 | 114473wa | 850790 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.64 TON |
| 10/10/2019 | 114473wa | 850791 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.23 TON |
| 10/10/2019 | 114473wa | 850800 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.17 TON |
| 10/10/2019 | 114473wa | 850804 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.14 TON |
| 10/10/2019 | 114473wa | 850807 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.58 TON |
| 10/10/2019 | 114473wa | 850808 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.35 TON |
| 10/10/2019 | 114473wa | 850809 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.85 TON |
| 10/15/2019 | 114473wa | 851069 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.65 TON |
| 10/15/2019 | 114473wa | 851070 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.73 TON |
| 10/15/2019 | 114473wa | 851071 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.02 TON |
| 10/15/2019 | 114473wa | 851073 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.13 TON |
| 10/15/2019 | 114473wa | 851074 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.78 TON |
| 10/15/2019 | 114473wa | 851079 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.77 TON |
| 10/15/2019 | 114473wa | 851080 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.01 TON |
| 10/15/2019 | 114473wa | 851081 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.9 TON |
| 10/15/2019 | 114473wa | 851085 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.97 TON |
| 10/15/2019 | 114473wa | 851087 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.75 TON |
| 10/15/2019 | 114473wa | 851094 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.55 TON |
| 10/15/2019 | 114473wa | 851095 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.48 TON |
| 10/15/2019 | 114473wa | 851097 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.12 TON |
| 10/15/2019 | 114473wa | 851105 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.48 TON |
| 10/15/2019 | 114473wa | 851109 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.66 TON |
| 10/15/2019 | 114473wa | 851117 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.36 TON |
| 10/15/2019 | 114473wa | 851118 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.36 TON |
| 10/15/2019 | 114473wa | 851122 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.95 TON |
| 10/15/2019 | 114473wa | 851126 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.63 TON |
| 10/15/2019 | 114473wa | 851128 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.97 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/15/2019 | 114473wa | 851132 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.82 TON |
| 10/15/2019 | 114473wa | 851134 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.72 TON |
| 10/15/2019 | 114473wa | 851135 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.29 TON |
| 10/15/2019 | 114473wa | 851138 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.98 TON |
| 10/15/2019 | 114473wa | 851141 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.5 TON |
| 10/15/2019 | 114473wa | 851151 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.5 TON |
| 10/15/2019 | 114473wa | 851152 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.83 TON |
| 10/15/2019 | 114473wa | 851153 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.03 TON |
| 10/15/2019 | 114473wa | 851155 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.65 TON |
| 10/15/2019 | 114473wa | 851159 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.32 TON |
| 10/15/2019 | 114473wa | 851167 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12 TON |
| 10/15/2019 | 114473wa | 851168 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.93 TON |
| 10/15/2019 | 114473wa | 851169 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.73 TON |
| 10/15/2019 | 114473wa | 851172 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.58 TON |
| 10/15/2019 | 114473wa | 851174 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.54 TON |
| 10/15/2019 | 114473wa | 851184 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.42 TON |
| 10/15/2019 | 114473wa | 851185 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.29 TON |
| 10/15/2019 | 114473wa | 851188 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.69 TON |
| 10/15/2019 | 114473wa | 851189 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.56 TON |
| 10/15/2019 | 114473wa | 851191 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.05 TON |
| 10/15/2019 | 114473wa | 851195 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.63 TON |
| 10/15/2019 | 114473wa | 851197 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.38 TON |
| 10/15/2019 | 114473wa | 851205 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.33 TON |
| 10/15/2019 | 114473wa | 851206 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.41 TON |
| 10/15/2019 | 114473wa | 851210 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.27 TON |
| 10/15/2019 | 114473wa | 851217 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.39 TON |
| 10/15/2019 | 114473wa | 851219 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.52 TON |
| 10/16/2019 | 114473wa | 851227 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.34 TON |
| 10/16/2019 | 114473wa | 851229 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.57 TON |
| 10/16/2019 | 114473wa | 851235 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.53 TON |
| 10/16/2019 | 114473wa | 851236 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.75 TON |
| 10/16/2019 | 114473wa | 851240 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.53 TON |
| 10/16/2019 | 114473wa | 851246 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.81 TON |
| 10/16/2019 | 114473wa | 851247 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.74 TON |
| 10/16/2019 | 114473wa | 851252 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.47 TON |
| 10/16/2019 | 114473wa | 851253 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.41 TON |
| 10/16/2019 | 114473wa | 851256 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.62 TON |
| 10/16/2019 | 114473wa | 851259 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.35 TON |
| 10/16/2019 | 114473wa | 851262 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.5 TON |
| 10/16/2019 | 114473wa | 851270 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.7 TON |
| 10/16/2019 | 114473wa | 851274 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.96 TON |
| 10/16/2019 | 114473wa | 851275 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.21 TON |
| 10/16/2019 | 114473wa | 851279 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.73 TON |
| 10/16/2019 | 114473wa | 851283 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.34 TON |
| 10/16/2019 | 114473wa | 851288 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.48 TON |
| 10/16/2019 | 114473wa | 851289 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.03 TON |
| 10/16/2019 | 114473wa | 851292 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13 TON |
| 10/16/2019 | 114473wa | 851295 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.65 TON |
| 10/16/2019 | 114473wa | 851300 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.11 TON |
| 10/16/2019 | 114473wa | 851303 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.86 TON |
| 10/16/2019 | 114473wa | 851307 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.75 TON |
| 10/16/2019 | 114473wa | 851309 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.83 TON |
| 10/16/2019 | 114473wa | 851310 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.89 TON |
| 10/16/2019 | 114473wa | 851316 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.39 TON |
| 10/16/2019 | 114473wa | 851330 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.67 TON |
| 10/16/2019 | 114473wa | 851331 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.36 TON |
| 10/16/2019 | 114473wa | 851332 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.5 TON |
| 10/16/2019 | 114473wa | 851333 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.91 TON |
| 10/16/2019 | 114473wa | 851336 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.9 TON |
| 10/16/2019 | 114473wa | 851351 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.5 TON |
| 10/16/2019 | 114473wa | 851352 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.61 TON |
| 10/16/2019 | 114473wa | 851356 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.13 TON |

| | | | | |
|---|---|---|---|---|
| 10/16/2019 | 114473wa | 851358 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.02 TON |
| 10/16/2019 | 114473wa | 851359 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.21 TON |
| 10/16/2019 | 114473wa | 851368 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.94 TON |
| 10/16/2019 | 114473wa | 851369 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.44 TON |
| 10/16/2019 | 114473wa | 851373 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.82 TON |
| 10/16/2019 | 114473wa | 851374 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.78 TON |
| 10/16/2019 | 114473wa | 851375 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.13 TON |
| 10/17/2019 | 114473wa | 851442 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.86 TON |
| 10/17/2019 | 114473wa | 851447 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.18 TON |
| 10/17/2019 | 114473wa | 851448 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.02 TON |
| 10/17/2019 | 114473wa | 851462 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.42 TON |
| 10/17/2019 | 114473wa | 851466 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.11 TON |
| 10/17/2019 | 114473wa | 851472 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.13 TON |
| 10/17/2019 | 114473wa | 851474 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.25 TON |
| 10/17/2019 | 114473wa | 851485 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.63 TON |
| 10/17/2019 | 114473wa | 851487 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.51 TON |
| 10/17/2019 | 114473wa | 851494 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.36 TON |
| 10/17/2019 | 114473wa | 851496 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.66 TON |
| 10/17/2019 | 114473wa | 851500 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.04 TON |
| 10/17/2019 | 114473wa | 851501 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.87 TON |
| 10/17/2019 | 114473wa | 851504 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.81 TON |
| 10/17/2019 | 114473wa | 851505 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.38 TON |
| 10/17/2019 | 114473wa | 851513 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.31 TON |
| 10/17/2019 | 114473wa | 851514 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.4 TON |
| 10/17/2019 | 114473wa | 851522 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.82 TON |
| 10/17/2019 | 114473wa | 851521 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.32 TON |
| 10/17/2019 | 114473wa | 851528 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.14 TON |
| 10/17/2019 | 114473wa | 851530 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.33 TON |
| 10/17/2019 | 114473wa | 851537 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.96 TON |
| 10/17/2019 | 114473wa | 851539 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.16 TON |
| 10/18/2019 | 114473wa | 851548 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.52 TON |
| 10/18/2019 | 114473wa | 851550 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.38 TON |
| 10/18/2019 | 114473wa | 851551 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.32 TON |
| 10/18/2019 | 114473wa | 851553 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.94 TON |
| 10/18/2019 | 114473wa | 851558 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.81 TON |
| 10/18/2019 | 114473wa | 851561 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.76 TON |
| 10/18/2019 | 114473wa | 851564 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.81 TON |
| 10/18/2019 | 114473wa | 851568 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.24 TON |
| 10/18/2019 | 114473wa | 851572 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.62 TON |
| 10/18/2019 | 114473wa | 851574 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.43 TON |
| 10/18/2019 | 114473wa | 851582 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.81 TON |
| 10/18/2019 | 114473wa | 851587 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.21 TON |
| 10/18/2019 | 114473wa | 851591 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.16 TON |
| 10/18/2019 | 114473wa | 851593 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.66 TON |
| 10/18/2019 | 114473wa | 851599 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.64 TON |
| 10/18/2019 | 114473wa | 851601 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.76 TON |
| 10/18/2019 | 114473wa | 851610 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.01 TON |
| 10/18/2019 | 114473wa | 851614 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.92 TON |
| 10/18/2019 | 114473wa | 851620 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.34 TON |
| 10/18/2019 | 114473wa | 851622 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.27 TON |
| 10/18/2019 | 114473wa | 851627 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.18 TON |
| 10/18/2019 | 114473wa | 851630 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.51 TON |
| 10/18/2019 | 114473wa | 851633 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.15 TON |
| 10/18/2019 | 114473wa | 851637 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.69 TON |
| 10/18/2019 | 114473wa | 851644 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.68 TON |
| 10/18/2019 | 114473wa | 851645 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.77 TON |
| 10/18/2019 | 114473WA | 851647 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.02 TON |
| 10/18/2019 | 114473WA | 851652 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.84 TON |
| 10/18/2019 | 114473WA | 851655 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.77 TON |
| 10/18/2019 | 114473WA | 851657 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.66 TON |
| 10/18/2019 | 114473WA | 851661 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.79 TON |
| 10/18/2019 | 114473WA | 851667 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.49 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/18/2019 | 114473wa | 851676 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.76 TON |
| 10/18/2019 | 114473wa | 851677 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.01 TON |
| 10/18/2019 | 114473wa | 851683 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.59 TON |
| 10/18/2019 | 114473wa | 851688 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.49 TON |
| 10/22/2019 | 114473wa | 851810 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.28 TON |
| 10/22/2019 | 114473wa | 851813 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.32 TON |
| 10/22/2019 | 114473wa | 851814 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.12 TON |
| 10/22/2019 | 114473wa | 851818 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.8 TON |
| 10/22/2019 | 114473wa | 851819 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.55 TON |
| 10/22/2019 | 114473wa | 851822 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.36 TON |
| 10/22/2019 | 114473wa | 851828 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.26 TON |
| 10/22/2019 | 114473wa | 851829 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.47 TON |
| 10/22/2019 | 114473wa | 851832 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.54 TON |
| 10/22/2019 | 114473wa | 851836 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.24 TON |
| 10/22/2019 | 114473wa | 851837 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.41 TON |
| 10/22/2019 | 114473wa | 851840 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.96 TON |
| 10/22/2019 | 114473wa | 851844 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.08 TON |
| 10/22/2019 | 114473WA | 851846 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.28 TON |
| 10/22/2019 | 114473WA | 851847 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.21 TON |
| 10/22/2019 | 114473wa | 851853 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.66 TON |
| 10/22/2019 | 114473wa | 851855 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.68 TON |
| 10/22/2019 | 114473wa | 851858 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.27 TON |
| 10/22/2019 | 114473wa | 851864 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.87 TON |
| 10/22/2019 | 114473wa | 851865 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.95 TON |
| 10/22/2019 | 114473wa | 851869 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.67 TON |
| 10/22/2019 | 114473wa | 851874 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.03 TON |
| 10/22/2019 | 114473wa | 851876 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.69 TON |
| 10/22/2019 | 114473wa | 851878 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.46 TON |
| 10/22/2019 | 114473wa | 851879 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.28 TON |
| 10/22/2019 | 114473wa | 851886 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.24 TON |
| 10/22/2019 | 114473wa | 851889 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.22 TON |
| 10/22/2019 | 114473wa | 851898 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.84 TON |
| 10/22/2019 | 114473wa | 851899 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.88 TON |
| 10/22/2019 | 114473wa | 851901 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.44 TON |
| 10/22/2019 | 114473wa | 851902 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.26 TON |
| 10/22/2019 | 114473wa | 851904 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.43 TON |
| 10/22/2019 | 114473wa | 851907 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.55 TON |
| 10/22/2019 | 114473wa | 851911 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.49 TON |
| 10/22/2019 | 114473wa | 851912 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.09 TON |
| 10/22/2019 | 114473wa | 851915 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.34 TON |
| 10/22/2019 | 114473wa | 851916 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.7 TON |
| 10/22/2019 | 114473wa | 851918 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.38 TON |
| 10/22/2019 | 114473wa | 851919 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.82 TON |
| 10/22/2019 | 114473wa | 851929 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.3 TON |
| 10/22/2019 | 114473wa | 851930 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.72 TON |
| 10/22/2019 | 114473wa | 851937 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.52 TON |
| 10/22/2019 | 114473wa | 851938 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.1 TON |
| 10/22/2019 | 114473wa | 851944 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.71 TON |
| 10/22/2019 | 114473wa | 851945 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.78 TON |
| 10/22/2019 | 114473wa | 851948 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.22 TON |
| 10/22/2019 | 114473wa | 851949 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.55 TON |
| 10/22/2019 | 114473wa | 851950 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.44 TON |
| 10/22/2019 | 114473wa | 851951 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.91 TON |
| 10/23/2019 | 114473wa | 851962 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.13 TON |
| 10/23/2019 | 114473wa | 851964 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.77 TON |
| 10/23/2019 | 114473wa | 851965 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.03 TON |
| 10/23/2019 | 114473wa | 851967 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.24 TON |
| 10/23/2019 | 114473wa | 851968 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.59 TON |
| 10/23/2019 | 114473 | 851970 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.14 TON |
| 10/23/2019 | 114473wa | 851972 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.3 TON |
| 10/23/2019 | 114473wa | 851975 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.59 TON |
| 10/23/2019 | 114473wa | 851977 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.54 TON |

| | | | | |
|---|---|---|---|---|
| 10/23/2019 | 114473wa | 851980 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.23 TON |
| 10/23/2019 | 114473wa | 851982 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.63 TON |
| 10/23/2019 | 114473wa | 851984 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.04 TON |
| 10/23/2019 | 114473wa | 851991 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.74 TON |
| 10/23/2019 | 114473wa | 851995 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.99 TON |
| 10/23/2019 | 114473wa | 851996 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.91 TON |
| 10/23/2019 | 114473wa | 852001 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.06 TON |
| 10/23/2019 | 114473wa | 852006 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.96 TON |
| 10/23/2019 | 114473wa | 852011 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.11 TON |
| 10/23/2019 | 114473wa | 852015 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.66 TON |
| 10/23/2019 | 114473wa | 852016 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.65 TON |
| 10/23/2019 | 114473wa | 852017 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.43 TON |
| 10/23/2019 | 114473wa | 852020 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.04 TON |
| 10/23/2019 | 114473wa | 852023 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.33 TON |
| 10/23/2019 | 114473wa | 852024 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.35 TON |
| 10/23/2019 | 114473wa | 852028 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.28 TON |
| 10/23/2019 | 114473wa | 852035 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.19 TON |
| 10/23/2019 | 114473wa | 852037 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.02 TON |
| 10/23/2019 | 114473wa | 852045 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.33 TON |
| 10/23/2019 | 114473wa | 852047 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.97 TON |
| 10/23/2019 | 114473wa | 852049 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.6 TON |
| 10/23/2019 | 114473wa | 852050 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.47 TON |
| 10/23/2019 | 114473wa | 852056 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.68 TON |
| 10/23/2019 | 114473wa | 852057 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.99 TON |
| 10/23/2019 | 114473wa | 852061 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.75 TON |
| 10/23/2019 | 114473wa | 852062 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.04 TON |
| 10/23/2019 | 114473wa | 852063 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.23 TON |
| 10/23/2019 | 114473wa | 852068 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.77 TON |
| 10/23/2019 | 114473wa | 852070 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.03 TON |
| 10/23/2019 | 114473wa | 852076 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.33 TON |
| 10/23/2019 | 114473wa | 852079 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.21 TON |
| 10/23/2019 | 114473wa | 852080 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.48 TON |
| 10/23/2019 | 114473wa | 852083 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.62 TON |
| 10/23/2019 | 114473wa | 852085 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.74 TON |
| 10/23/2019 | 114473wa | 852088 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.21 TON |
| 10/23/2019 | 114473wa | 852096 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.05 TON |
| 10/23/2019 | 114473wa | 852098 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.74 TON |
| 10/23/2019 | 114473wa | 852106 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.44 TON |
| 10/23/2019 | 114473wa | 852108 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.36 TON |
| 10/23/2019 | 114473wa | 852110 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.5 TON |
| 10/23/2019 | 114473wa | 852115 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.5 TON |
| 10/24/2019 | 114473wa | 852122 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.93 TON |
| 10/24/2019 | 114473wa | 852124 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.61 TON |
| 10/24/2019 | 114473wa | 852129 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.6 TON |
| 10/24/2019 | 114473wa | 852130 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.67 TON |
| 10/24/2019 | 114473wa | 852132 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.43 TON |
| 10/24/2019 | 114473wa | 852133 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.63 TON |
| 10/24/2019 | 114473wa | 852136 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.89 TON |
| 10/24/2019 | 114473wa | 852135 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.57 TON |
| 10/24/2019 | 114473wa | 852142 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.07 TON |
| 10/24/2019 | 114473wa | 852145 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.1 TON |
| 10/24/2019 | 114473wa | 852146 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.89 TON |
| 10/24/2019 | 114473wa | 852149 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.52 TON |
| 10/24/2019 | 114473wa | 852150 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.99 TON |
| 10/24/2019 | 114473wa | 852152 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.36 TON |
| 10/24/2019 | 114473wa | 852156 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.56 TON |
| 10/24/2019 | 114473wa | 852157 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.15 TON |
| 10/24/2019 | 114473wa | 852160 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.94 TON |
| 10/24/2019 | 114473wa | 852163 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.97 TON |
| 10/24/2019 | 114473wa | 852166 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.81 TON |
| 10/24/2019 | 114473wa | 852169 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.48 TON |
| 10/24/2019 | 114473wa | 852171 Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.42 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/24/2019 | 114473wa | 852174 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.82 TON |
| 10/24/2019 | 114473wa | 852175 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.7 TON |
| 10/24/2019 | 114473wa | 852176 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.59 TON |
| 10/24/2019 | 114473wa | 852177 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 10.57 TON |
| 10/24/2019 | 114473wa | 852180 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 3.47 TON |
| 10/24/2019 | 114473wa | 852183 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.29 TON |
| 10/24/2019 | 114473wa | 852188 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.52 TON |
| 10/24/2019 | 114473wa | 852189 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.54 TON |
| 10/24/2019 | 114473wa | 852190 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.76 TON |
| 10/24/2019 | 114473wa | 852191 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.56 TON |
| 10/24/2019 | 114473wa | 852196 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.22 TON |
| 10/24/2019 | 114473wa | 852204 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.88 TON |
| 10/24/2019 | 114473wa | 852207 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.05 TON |
| 10/24/2019 | 114473wa | 852211 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.17 TON |
| 10/24/2019 | 114473wa | 852212 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.78 TON |
| 10/24/2019 | 114473wa | 852216 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.38 TON |
| 10/24/2019 | 114473wa | 852217 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.02 TON |
| 10/24/2019 | 114473wa | 852221 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.81 TON |
| 10/24/2019 | 114473wa | 852222 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.8 TON |
| 10/24/2019 | 114473wa | 852226 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.13 TON |
| 10/24/2019 | 114473wa | 852227 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.46 TON |
| 10/24/2019 | 114473wa | 852232 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.48 TON |
| 10/24/2019 | 114473wa | 852235 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.45 TON |
| 10/24/2019 | 114473wa | 852239 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.78 TON |
| 10/24/2019 | 114473wa | 852242 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.18 TON |
| 10/24/2019 | 114473wa | 852243 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.36 TON |
| 10/24/2019 | 114473wa | 852245 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.51 TON |
| 10/24/2019 | 114473wa | 852249 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 19.72 TON |
| 10/24/2019 | 114473wa | 852252 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.7 TON |
| 10/24/2019 | 114473wa | 852255 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.73 TON |
| 10/24/2019 | 114473wa | 852256 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.76 TON |
| 10/24/2019 | 114473wa | 852262 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.82 TON |
| 10/24/2019 | 114473wa | 852264 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.27 TON |
| 10/24/2019 | 114473wa | 852267 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 19.25 TON |
| 10/24/2019 | 114473wa | 852270 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.3 TON |
| 10/24/2019 | 114473wa | 852274 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.65 TON |
| 10/24/2019 | 114473wa | 852275 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.64 TON |
| 10/24/2019 | 114473wa | 852279 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.69 TON |
| 10/24/2019 | 114473wa | 852281 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.64 TON |
| 10/24/2019 | 114473wa | 852284 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.67 TON |
| 10/24/2019 | 114473wa | 852289 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 8.77 TON |
| 10/25/2019 | 114473wa | 852292 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.34 TON |
| 10/25/2019 | 114473wa | 852297 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.76 TON |
| 10/25/2019 | 114473wa | 852302 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.52 TON |
| 10/25/2019 | 114473wa | 852303 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.8 TON |
| 10/25/2019 | 114473wa | 852304 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.4 TON |
| 10/25/2019 | 114473wa | 852305 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.95 TON |
| 10/25/2019 | 114473wa | 852306 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.98 TON |
| 10/25/2019 | 114473wa | 852312 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.79 TON |
| 10/25/2019 | 114473wa | 852313 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.54 TON |
| 10/25/2019 | 114473wa | 852317 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.74 TON |
| 10/25/2019 | 114473wa | 852320 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.3 TON |
| 10/25/2019 | 114473wa | 852322 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.64 TON |
| 10/25/2019 | 114473wa | 852324 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.01 TON |
| 10/25/2019 | 114473wa | 852328 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.07 TON |
| 10/25/2019 | 114473wa | 852329 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.46 TON |
| 10/25/2019 | 114473wa | 852333 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.66 TON |
| 10/25/2019 | 114473wa | 852334 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.25 TON |
| 10/25/2019 | 114473wa | 852336 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.31 TON |
| 10/25/2019 | 114473wa | 852339 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.29 TON |
| 10/25/2019 | 114473wa | 852344 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.51 TON |
| 10/25/2019 | 114473wa | 852345 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.12 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/25/2019 | 114473wa | 852348 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.51 TON |
| 10/25/2019 | 114473wa | 852349 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.72 TON |
| 10/25/2019 | 114473wa | 852351 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.42 TON |
| 10/25/2019 | 114473wa | 852357 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.22 TON |
| 10/25/2019 | 114473wa | 852359 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.14 TON |
| 10/25/2019 | 114473wa | 852360 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.85 TON |
| 10/25/2019 | 114473wa | 852365 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.58 TON |
| 10/25/2019 | 114473wa | 852366 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.2 TON |
| 10/25/2019 | 114473wa | 852371 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.38 TON |
| 10/25/2019 | 114473wa | 852382 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.09 TON |
| 10/25/2019 | 114473wa | 852383 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.87 TON |
| 10/25/2019 | 114473wa | 852384 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.15 TON |
| 10/25/2019 | 114473wa | 852385 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.38 TON |
| 10/25/2019 | 114473wa | 852387 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 9.11 TON |
| 10/25/2019 | 114473wa | 852389 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.69 TON |
| 10/25/2019 | 114473wa | 852392 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.55 TON |
| 10/25/2019 | 114473wa | 852393 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.38 TON |
| 10/25/2019 | 114473wa | 852395 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.52 TON |
| 10/25/2019 | 114473wa | 852398 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.35 TON |
| 10/25/2019 | 114473wa | 852401 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 11.9 TON |
| 10/25/2019 | 114473wa | 852404 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.75 TON |
| 10/25/2019 | 114473wa | 852413 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.62 TON |
| 10/25/2019 | 114473wa | 852415 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.81 TON |
| 10/25/2019 | 114473wa | 852416 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.78 TON |
| 10/25/2019 | 114473wa | 852417 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.61 TON |
| 10/25/2019 | 114473wa | 852421 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.52 TON |
| 10/25/2019 | 114473wa | 852423 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.33 TON |
| 10/25/2019 | 114473wa | 852431 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.68 TON |
| 10/25/2019 | 114473wa | 852432 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.17 TON |
| 10/25/2019 | 114473wa | 852435 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.31 TON |
| 10/28/2019 | 114473wa | 852443 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.23 TON |
| 10/28/2019 | 114473wa | 852444 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.41 TON |
| 10/28/2019 | 114473wa | 852445 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18 TON |
| 10/28/2019 | 114473wa | 852449 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.28 TON |
| 10/28/2019 | 114473wa | 852450 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.8 TON |
| 10/28/2019 | 114473wa | 852457 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.36 TON |

| | | | | | |
|---|---|---|---|---|---|
| 10/28/2019 | 114473wa | 852461 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.89 TON |
| 10/28/2019 | 114473wa | 852462 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.3 TON |
| 10/28/2019 | 114473wa | 852463 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.04 TON |
| 10/28/2019 | 114473wa | 852466 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.9 TON |
| 10/28/2019 | 114473wa | 852469 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.75 TON |
| 10/28/2019 | 114473wa | 852477 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.91 TON |
| 10/28/2019 | 114473wa | 852481 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.53 TON |
| 10/28/2019 | 114473wa | 852484 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.92 TON |
| 10/28/2019 | 114473wa | 852486 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.06 TON |
| 10/28/2019 | 114473wa | 852488 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.71 TON |
| 10/28/2019 | 114473wa | 852490 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.91 TON |
| 10/28/2019 | 114473wa | 852499 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.31 TON |
| 10/28/2019 | 114473wa | 852502 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.93 TON |
| 10/28/2019 | 114473wa | 852504 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.33 TON |
| 10/28/2019 | 114473wa | 852506 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.64 TON |
| 10/28/2019 | 114473wa | 852507 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.83 TON |
| 10/28/2019 | 114473wa | 852513 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.19 TON |
| 10/28/2019 | 114473wa | 852518 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.55 TON |
| 10/28/2019 | 114473wa | 852519 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.89 TON |
| 10/28/2019 | 114473wa | 852521 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.02 TON |
| 10/28/2019 | 114473wa | 852523 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.75 TON |
| 10/28/2019 | 114473wa | 852528 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.11 TON |
| 10/28/2019 | 114473wa | 852532 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.21 TON |
| 10/28/2019 | 114473wa | 852536 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.31 TON |
| 10/28/2019 | 114473wa | 852537 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.05 TON |
| 10/28/2019 | 114473wa | 852538 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.24 TON |
| 10/28/2019 | 114473wa | 852540 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.76 TON |
| 10/28/2019 | 114473wa | 852543 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.77 TON |
| 10/28/2019 | 114473wa | 852547 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.68 TON |
| 10/28/2019 | 114473wa | 852554 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.63 TON |
| 10/28/2019 | 114473wa | 852556 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.25 TON |
| 10/28/2019 | 114473wa | 852558 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.44 TON |
| 10/28/2019 | 114473wa | 852559 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.37 TON |
| 10/28/2019 | 114473wa | 852562 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.14 TON |
| 10/28/2019 | 114473wa | 852563 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.88 TON |
| 10/28/2019 | 114473wa | 852568 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.71 TON |
| 10/28/2019 | 114473WA | 852569 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.39 TON |
| 10/28/2019 | 114473wa | 852571 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.7 TON |
| 10/28/2019 | 114473wa | 852574 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.52 TON |
| 10/28/2019 | 114473wa | 852576 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.25 TON |
| 10/28/2019 | 114473wa | 852577 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.3 TON |
| 10/28/2019 | 114473wa | 852583 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 18.12 TON |
| 10/28/2019 | 114473wa | 852585 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.8 TON |
| 10/28/2019 | 114473wa | 852587 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.5 TON |
| 10/28/2019 | 114473wa | 852589 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.75 TON |
| 10/28/2019 | 114473wa | 852593 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.42 TON |
| 10/28/2019 | 114473wa | 852596 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.45 TON |
| 10/28/2019 | 11443wa | 852604 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.23 TON |
| 10/28/2019 | 114473wa | 852606 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.97 TON |
| 10/28/2019 | 114473wa | 852607 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 12.58 TON |
| 10/28/2019 | 114473wa | 852609 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 13.53 TON |
| 10/28/2019 | 114473wa | 852611 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.55 TON |
| 10/28/2019 | 114473wa | 852612 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.04 TON |
| 10/29/2019 | 114473wa | 852633 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 17.05 TON |
| 10/29/2019 | 114473wa | 852680 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.67 TON |
| 10/29/2019 | 114473wa | 852682 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 14.95 TON |
| 10/29/2019 | 114473wa | 852692 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 15.5 TON |
| 10/29/2019 | 114473wa | 852695 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.56 TON |
| 10/29/2019 | 114473wa | 852703 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 16.71 TON |
| 11/6/2019 | 114473wa | 853434 | Cont. Soil - Petroleum, PMT is RGC | Greater Wenatchee Regional LF | 2.03 TON |
| | | | | | 11901.14 |

# APPENDIX E
## Site Restoration Materials Documentation

Profile®

Solutions for your Environment™

January 14, 2016

Re: Certificate of Compliance, Conwed Fibers® Hydro Mulch® 1000 with TriFlo™

To Whom It May Concern:

This letter is to certify that Profile Products, LLC manufactures the Green Design Engineering™ product marketed as Conwed Fibers® Hydro Mulch® 1000 with TriFlo™. Conwed Fibers Hydro Mulch 1000 with TriFlo is made in the U.S.A and has been subjected to Profile Product's Quality Assurance and Quality Control program and is manufactured to meet or exceed all technical and packaging requirements listed on the attached product datasheet. If you have any questions regarding this product please contact Profile Products.

Sincerely,

Matt Welch, CESSWI
Technical Manager
Profile Products

Profile®

Solutions for your Environment™

January 14, 2016

Re: Certificate of Compliance, ProMatrix™ Engineered Fiber Matrix™ (EFM™)

To Whom It May Concern:

This letter is to certify that Profile Products, LLC manufactures the Green Design Engineering™ product marketed as ProMatrix™ Engineered Fiber Matrix™ (EFM™). ProMatrix EFM is made in the U.S.A and has been subjected to Profile Product's Quality Assurance and Quality Control program and is manufactured to meet or exceed all technical and packaging requirements listed on the attached product datasheet. If you have any questions regarding this product please contact Profile Products.

Sincerely,

Matt Welch, CESSWI
Technical Manager
Profile Products

# Certificate of Compliance

## (For Seed Mixes, Blends and Straight seed supplied by WRI)

Issue Date: 10-24-2019

Issued To: Washington Green Hydro-seeding

Re: Certificate of Compliance – Saddle Rock Ph 1 Interim Removal Action

Western Reclamation, Inc. hereby Certifies that the seed that it has provided to the contractor for the stated job, meets all seed specifications as required: including Purity, germination/tz, maximum weed and crop tolerances and inert matter as tested by an AOSCA certified lab chosen by Western Reclamation, Inc. In addition, the analysis tag issued to and affixed on the seed lot bags represents the seed quality contained herein with Western Reclamation's warranty of fitness, arbitration, conciliation and mediation statement on the back, which governs our relationships with our customers.

Furthermore, Western Reclamation, Inc. certifies that the seed complies with the specifications required by this contract as relates to the seeds genetic origin and its location of production and/or native harvest.

Western Reclamation may be contacted for information regarding this mix or blend at our office 509-297-4500, or by email at wri@westernreclamation.com

Sincerely,

Todd N. Harris, President

Western Reclamation, Inc.

P.O.Box 210

Eltopia, WA 99330

Phone: 509-297-4500, Fax: 509-297-4505

# MycoApply® Endo/Ecto

## Product Specifications & Application Instructions

**Index:**


| | | | |
|---|---|---|---|
| 1.0 | Overview | 5.0 | Physical Properties |
| 2.0 | Application Instructions | 6.0 | Storage & Handling |
| 3.0 | Guaranteed Analysis | 7.0 | Warranty & Disclaimer |
| 4.0 | First Aid | | |


**Quick Facts:**

**Product Name:**
MycoApply® Endo/Ecto

**Formulation:**
Granular
Endomycorrhizal and
Ectomycorrhizal Fungi

**Concentration:**
60,000 Endo & 110 million
Ecto Propagules per lb.
(132.4 Endo &
242,509 Ecto
Propagules per gram)

**Packaging Options:**
40 lb. Bags
120 lb. Bulk Barrels
300 lb. Bulk Barrels
1,000 lb. Bulk Tote Bags

**Applications & Uses:**
Horticulture, Landscaping, Propagation, Arbor Care, Turf, Forestry, Restoration, and Erosion Control

For Orga

## 1.0 Overview:

MycoApply® Endo/Ecto is a granular mycorrhizal inoculum consisting of 4 species of endomycorrhizal fungi and 7 species of ectomycorrhizal fungi. About 95% of the world's plant species form symbiotic relationships with at least one of these types of symbiotic soil fungus. These beneficial fungi greatly increase the effective rooting area of plants, thereby enhancing plant growth, vigor, and tolerance of environmental extremes. MycoApply® Endo/Ecto is a granular material containing mycorrhizal propagules, which colonize roots and extend into the surrounding soil forming an essential link between plants and soil resources. Increasing the rooting area allows improved access to water and nutrients, promoting plant quality and crop performance.

## 2.0 Application Instructions:

MycoApply® Endo/Ecto is a granular mycorrhizal inoculant that can be banded under seed, worked into seedbeds, placed under cuttings, blended into potting media, or sprinkled on roots at time of transplant. Use higher rates for propagation or high-stress circumstances.

**The goal is to create physical contact between the inoculant and the growing roots.**

| | |
|---|---|
| Restoration | Inoculum can be hydromulched or banded in rows with seed during planting at a rate of **15 to 22 lb/a** (**16.81 to 24.66 kg/ha**).<br>Use **40 to 60 lb/a** (**44.83 to 67.25 kg/ha**) to broadcast or rototill before planting. |
| Turf | Apply during installation or aerification.<br>Rate is **0.1 to 0.25 lb/1,000 ft²** (**0.49 - 1.22 kg/1,000 m²**). |
| Nurseries and Greenhouses | Inoculum can be mixed into planting soil/media before/during filling cavities, pots, or trays. May be mixed with mechanical equipment that allows the passage of a #8 screen (2.5 mm or smaller particles). Mix at a rate of **1 to 2 lb/yd³** (**0.59 to 1.19 kg/m³**) (use higher rate for propagation trays or other small cells). |
| Plantings | Apply in furrow at a rate of **0.17 oz/ft** (**15.8 g/m**) of row.<br>Apply to cuttings at a rate of **0.085 oz** (**2.4 g**) under each cutting.<br>Apply to potted plants/transplants at a rate of **0.5 to 1 oz/gal** (**3.74 - 7.49 g/L**) size pot. Apply to Balled and Burlapped trees and shrubs at a rate of **0.5 to 1.5 oz/in** (**5.58 to 16.74 g/cm**) of stem caliper. |

## Key Benefits:

### Root System Growth

- Mycorrhizal fungi support faster plant establishment
- Mycorrhizal hyphae access water and nutrients beyond the root zone and deliver them to the plant's vascular network
- Increases root absorption area
- Increases overall root biomass

### Nutrient Efficiency

- Mycorrhizal hyphae absorb and actively deliver nutrients directly to the roots
- Improves utilization of soil nutrients including:
  - Nitrogen
  - Phosphorus
  - Potassium
  - Micronutrients

### Water Absorption

- Mycorrhizal hyphae absorb and transport soil moisture from beyond the root zone to the plant's roots
- The mycorrhizal symbiosis increases the plant's effective water utilization capability:
  - Improved tolerance to stress
  - Greater resistance to drought

## 3.0 Guaranteed Analysis:

**CONTAINS NON-PLANT FOOD INGREDIENTS**
**Soil Amending Guaranteed Analysis**
**Total Active Ingredients:**.....0.06%
Endomycorrhizal fungi: (60,000 Propagules per lb. Total)
*Glomus intraradices, G. mosseae, G. aggregatum, G. etunicatum (33.1 prop/g each)*
Ectomycorrhizal fungi: (110,000,000 Propagules per lb. Total)
*Rhizopogon villosulus, R. luteolus, R. amylopogon, R. fulvigleba (2,750 prop/g each)*
*Pisolithus tinctorius (220,509 prop/g)*
*Scleroderma cepa, S. citrinum (5,500 prop/g each)*
**Total Inert Ingredients:**.....99.94%
Clay (as carrier)

"This Product is not a Plant Food"
Information regarding the contents and levels of metals in this product is available on the internet at: http://www.aapfco.org/metals.html

## 4.0 First Aid:

**Danger:** Do not handle until all safety precautions have been read and understood. Do not breathe dust. If exposed or concerned get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/ international regulations.

| First Aid Measures | |
|---|---|
| If on Skin: | Wash with soap and water. Then apply hand lotion. Exposure to skin may cause mild irritation and dry skin. |
| If in Eyes: | Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. |
| If Swallowed: | If used material is ingested, get medical attention. If large amount of unused material is swallowed, get immediate medical attention. |
| If Inhaled: | Supply fresh air. If irritation or other symptoms occur, get medical attention. |

## 5.0 Physical Properties:

- **5.1** **State:** Granular
- **5.2** **Appearance:** Tan to Dark Brown
- **5.3** **Odor:** Mild

## 6.0 Storage & Handling:

- **6.1** **Storage:** Store in a dry, cool, well ventilated area. Keep sealed in a properly labeled container. Do not expose to temperatures in excess of 140°F or 60°C.
- **6.2** **Handling:** Minimize dust generation and accumulation. Use outdoors, or ensure good ventilation/exhaustion when used indoors.
- **6.3** **Disposal:** Dispose of all waste in accordance with local, state, and federal regulations.

## 7.0 Warranty & Disclaimer:

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness, or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risk of use, storage, or handling not in strict accordance with accompanying directions.

Washington State
Department of Transportation

# Qualified Product List

**Product Information**

## Manufacturer : Profile Products LLC, Buffalo Grove - IL

## Product Name : EcoMatrix Engineered Fiber Matrix (EFM) - ProMatrix Engineered Fiber Matrix (EFM)

**Standard Spec :** 9-14.4(2)A, Erosion Control - Mulch and Amendments - Long Term Mulch

**Product Description :** Long term Mulch
**Product Restriction :**

**Acceptance Code :** 3101
**Code Description :** Visually verify the product delivered to the job site is the product that was originally submitted by the Contractor and approved from the QPL. Note 'Restrictions' when present.

**Last Updated :** Apr 18, 2019

**Contractors with WSDOT Click here for** Contractor Product Info Page

# Conwed Fibers® Hydro Mulch® 1000

**Hydraulic Mulch — Wood**

Solutions for your Environment™

GREEN DESIGN ENGINEERING™
EARTH-FRIENDLY SOLUTIONS FOR SUSTAINABLE RESULTS™

## Description

Conwed Fibers® Hydro Mulch® 1000 is a fully biodegradable, Hydraulic Mulch (HM) composed of 100% recycled Thermally Refined™ virgin wood fibers derived from whole wood chips. The HM is phytosanitized, free from plastic netting, and upon application forms an intimate bond with the soil surface to create a porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

## Recommended Applications

- Erosion control and revegetation for moderate slopes (≤2H:1V)
- Rough graded slopes
- Enhancement of vegetation establishment

## Technical Data

| Physical Properties* | Test Method | Units | Tested Value |
|---|---|---|---|
| Mass/Unit Area | ASTM D6566 | $g/m^2$ ($oz/yd^2$) | ≥ 336 (9.9) |
| Water Holding Capacity | ASTM D7367 | % | ≥ 1,100 |
| Material Color | Observed | n/a | Green |
| **Performance Properties*** | **Test Method** | **Units** | **Tested Value** |
| Cover Factor[1] | Large Scale[2] | n/a | ≤ 0.30 |
| Percent Effectiveness[3] | Large Scale[2] | % | ≥ 70 |
| Functional Longevity[4] | ASTM D5338 | months | ≤ 3 |
| **Environmental Properties*** | **Test Method** | **Units** | **Tested Value** |
| Ecotoxicity | EPA 2021.0 | % | 48-hr $LC_{50}$ > 100% |
| Biodegradability | ASTM D5338 | n/a | Yes |
| **Product Composition** | | | **Typical Value** |
| Thermally Refined Wood Fibers[5] | | | 100% |

* When uniformly applied at a rate of 3000 pounds per acre (3400 kilograms/hectare) under laboratory conditions. 1. Cover Factor is calculated as soil loss ratio of treated surface versus an untreated control surface. 2. Large scale testing conducted at Utah Water Research Laboratory. For specific testing information please contact a Profile technical service representative at 800-508-8681 or +1-847-215-3464. 3. % Effectiveness = One minus Cover Factor multiplied by 100%. 4. Functional Longevity is the estimated time period, based upon ASTM D5338 testing and field observations, that a material can be anticipated to provide erosion control and agronomic benefits as influenced by composition, as well as site-specific conditions, including; but not limited to – temperature, moisture, light conditions, soils, biological activity, vegetative establishment and other environmental factors. 5. Heated within a pressurized vessel to a temperature greater than 380 degrees Fahrenheit (193 degrees Celsius) for 5 minutes at a pressure greater than 50 psi (345 kPa) in order to be Thermally Refined™/Processed and to achieve phyto-sanitization.

## Packaging Data

| Properties | Test Method | Units | Nominal Value |
|---|---|---|---|
| Bag Weight | Scale | kg (lb) | 22.7 (50) |
| Bags per Pallet | Observed | # | 40 |

UV and weather-resistant plastic bags. Pallets are weather-proof stretch wrapped with UV resistant pallet cover.

**Profile Products**
750 Lake Cook Road, Ste. 440
Buffalo Grove, IL 60089
800-508-8681 or +1-847-215-3464
www.profileproducts.com

To the best of our knowledge, the information contained herein is accurate. However, Profile Products cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use and whether the suggested use infringes any patents is the sole responsibility of the user.
Profile Products 2018©

*Quality Polymers from* RANTEC

*25 Years of Innovation!*

**RANTEC CORPORATION**
PO Box 729
Ranchester, WY 82839

Phone: (307) 655-9565
Fax: (307) 655-9528
www.ranteccorp.com
e-mail: rantec@ranteccorp.com

# EARTH TACK

## ANIONIC POLYACRYLAMIDE

### PRODUCT DESCRIPTION

**Earth Tack** is a premium polyacrylamide designed for hydromulching, hydroseeding, and dust control applications.
**Earth Tack** increases soil porosity and reduces sediment runoff through soil agglomeration and flocculating suspended sediment.
**Earth Tack** provides optimal slurry viscosity for ease of application.
**Earth Tack** provides for temporary erosion control during vegetative establishment.

### SPECIFICATIONS

| | |
|---|---|
| Active Ingredient: | Linear Co-Polymer of acrylamide and sodium acrylate |
| Minimum Active Ingredient: | 90% |
| Ionic Charge: | Anionic |
| Molecular Weight: | 16,000,000 – 20,000,000 |
| Environmental Certifications: | ANSI/NSF Standard 60, contains less than 0.05% residual acrylamide |

### APPLICATION RATE

For temporary erosion control, it is recommended that **Earth Tack** be applied at 6 to 8 lbs per 1000 gallons of water. The use of mulch at 150 to 300 lbs may be added as a marker.

| **SLOPE** | FLAT | 3:1 | 2:1 | 1:1 |
|---|---|---|---|---|
| **LB/ACRE** | 3-5 | 5-10 | 10-20 | 20-30 |

### PACKAGING

55 lb Bag
3 lb and 6 lb Plastic Jug
3 lb LDPE Bag
3 lb Water Soluble Bag

**NEW WATER SOLUBLE BAGS!**

Revised November 2009 © Rantec Corporation

Profile
Solutions for your Environment

# ProMatrix™
## Engineered Fiber Matrix

GREEN DESIGN ENGINEERING™
EARTH-FRIENDLY SOLUTIONS FOR SUSTAINABLE RESULTS™

## Description

ProMatrix™ Engineered Fiber Matrix™ (EFM™) is 100% biodegradable, made in the United States and is composed of 100% recycled, thermally refined (within a pressurized vessel) virgin wood fibers, crimped interlocking biodegradable fibers, mineral activators and wetting agents (including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents). The EFM is phytosanitized, free from plastic netting, and when cured forms an intimate bond with the soil surface to create a continuous, porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth. The EFM performs as a Bonded Fiber Matrix (BFM) product and may require a 4-24 hour curing period to achieve maximum performance.

## Recommended Applications

- Erosion control for slopes ranging from mild to extreme (≤1H:1V)
- Meets or exceeds performance of bonded fiber matrix (BFM)
- Equivalent performance to most erosion controlled blankets
- Rough graded slopes
- Enhancement of vegetation establishment

## Technical Data

| Physical Properties* | Test Method | Units | Tested Value |
|---|---|---|---|
| Mass/Unit Area | ASTM D6566[1] | g/m$^2$ (oz/yd$^2$) | ≥ 390 (11.6) |
| Thickness | ASTM D6525[1] | mm (in) | ≥ 4 (0.16) |
| Ground Cover | ASTM D6567[1] | % | ≥ 98 |
| Water Holding Capacity | ASTM D7367[1] | % | ≥ 1,400 |
| Material Color | Observed | n/a | Green |
| **Performance Properties*** | **Test Method** | **Units** | **Tested Value** |
| Cover Factor[2] | Large Scale[4] | n/a | ≤ 0.05 |
| Percent Effectiveness[3] | Large Scale[4] | % | ≥ 95 |
| Cure Time | Observed | hours | 4-24 |
| Vegetation Establishment | ASTM D7322[1] | % | ≥ 600 |
| Functional Longevity[5] | ASTM D5338 | months | ≤ 12 |
| **Environmental Properties*** | **Test Method** | **Units** | **Tested Value** |
| Ecotoxicity | EPA 2021.0 | % | 48-hr $LC_{50}$ > 100% |
| Biodegradability | ASTM D5338 | n/a | Yes |
| **Product Composition** | | | **Typical Value** |
| Thermally Processed Wood Fibers[6] | | | 77 % |
| Wetting Agents - including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents | | | 18 % |
| Crimped, Biodegradable Interlocking Fibers derived from plant sugars | | | 2.5 % |
| Micro-Pore Granules | | | 2.5 % |

* When uniformly applied at a rate of 3500 pounds per acre (3900 kilograms/hectare) under laboratory conditions. 1. ASTM test methods developed for Rolled Erosion Control Products that have been modified to accommodate Hydraulic Erosion Control Products. 2. Cover Factor is calculated as soil loss ratio of treated surface versus an untreated control surface. 3. % Effectiveness = One minus Cover Factor multiplied by 100%. 4. Large scale testing conducted at Utah Water Research Laboratory and Texas Transportation Institute. For specific testing information please contact a Profile technical service representative at 800-508-8681 or +1-847-215-1144. 5. Functional Longevity is the estimated time period, based upon field observations, that a material can be anticipated to provide erosion control and agronomic benefits as influenced by composition, as well as site-specific conditions, including; but not limited to temperature, moisture, light conditions, soils, biological activity, vegetative establishment and other environmental factors. 6. Heated to a temperature greater than 380 degrees Fahrenheit (193 degrees Celsius) for 5 minutes at a pressure greater than 50 psi (345 kPa) in order to be Thermally Refined™/Processed and to achieve phytosanitization.

## Packaging Data

| Properties | Test Method | Units | Value |
|---|---|---|---|
| Bag Weight | Scale | kg (lb) | 22.7 (50) |
| Bags per Pallet | Observed | # | 40 |

UV and weather-resistant plastic bags. Pallets are weather-proof stretch wrapped with UV resistant pallet cover.

**Profile Products LLC**
750 Lake Cook Road, Ste. 440
Buffalo Grove, IL 60089
800-508-8681 or +1-847-215-1144
www.profileproducts.com

To the best of our knowledge, the information contained herein is accurate. However, Profile Products cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use and whether the suggested use infringes any patents is the sole responsibility of the user.
Profile Products 2017©

OMRI Listed

# RICHLAWN FERTILIZER 7-2-1

Richlawn 7-2-1 is a natural, organic fertilizer containing a slow release Nitrogen and organic Phosphorus that restores depleted soils by adding essential nutrients to build a sustainable environment in which to establish vegetation quickly.

**Comparable to Biosol 7-2-1**

## Guaranteed Analysis

| | |
|---|---|
| Total Nitrogen(N) | 7.0% |
| 6.07% Water Insoluble Nitrogen* | |
| 0.93% Water Soluble Organic Nitrogen | |
| Available Phosphate ($P_2O_5$) | 2.0% |
| Soluble Potash ($K_2O$) | 1.0% |
| Calcium (Ca) | 6.0% |

**Plant Nutrient Sources**: Dried Poultry Manure and Feather Meal.

*6.07% Slowly Available Nitrogen from Poultry Manure and Feather Meal.

**NET WEIGHT 50 LBS**

Manufactured by Richlawn Turf Food, LLC
15121 WCR 32, Platteville, CO 80651
Net Weight 50 Lbs (22.68 Kg.)

## The Benefits of Richlawn 7-2-1

- Increases the nutrient and water holding capacity of the existing soil.
- Increases soil porosity which promotes superior root establishment.
- Extended release nutrients allow for fertilization over longer timescales.

**DISTRIBUTED BY:**
**ACF West Environmental**
**4390 N. Yellowstone Highway**
**Idaho Falls, ID 83401**
**208-881-5070**

# WESTERN RECLAMATION MIX SHEET

**Lot #:** WRI-19-0137 **Customer:** WGH:SaddleRockMix, Wenatchee **Pounds:** 48.6

## Blend Components

| % OF MIX | VARIETY/KIND | LOT NO. | PURE SEED | INERT | WEED | OTHER CROP | GERM/TZ | PLS % | TEST DATE | ORIGIN |
|---|---|---|---|---|---|---|---|---|---|---|
| 47.00% | HorseHeaven, Bluebunch Wheatgrass | NBS-LH18-HHB-1 | 98.38% | 1.57% | 0.00% | 0.05% | 95.00% | 93.46% | 19-Mar | WA |
| 13.00% | Reliable, Sandberg's Bluegrass | NBS-CF18-REL-1 | 97.15% | 2.53% | 0.08% | 0.24% | 95.00% | 92.29% | 19-Mar | WA |
| 11.00% | Winchester, Idaho Fescue | U21-14-35008-1 | 97.93% | 1.21% | 0.10% | 0.00% | 95.00% | 93.03% | 19-Apr | OR |
| 6.00% | Pleasant Valley, Bottlebrush Squirreltail | NBS-BP18-PV-2 | 99.27% | 0.60% | 0.07% | 0.06% | 88.00% | 87.36% | 19-Jan | WA |
| 5.00% | Silky Lupine | SIS5461 | 99.28% | 0.65% | 0.04% | 0.03% | 98.00% | 97.29% | 19-Sep | ID |
| 6.00% | Arrowleaf Balsamroot | BASA-A | 98.69% | 1.22% | 0.00% | 0.09% | 92.00% | 90.79% | 19-Jun | ID |
| 3.00% | Snow Buckwheat | ERNI14-079 | 87.96% | 11.43% | 0.61% | 0.00% | 71.00% | 62.45% | 19-Oct | ID |
| 3.00% | Sulfur Buckwheat | 0763 | 98.76% | 1.24% | 0.00% | 0.00% | 77.00% | 76.05% | 19-Sep | UT |
| 4.00% | Nineleaf Biscuitroot, Lomatium sp. | LOTR-CA | 97.79% | 2.21% | 0.00% | 0.00% | 96.00% | 93.88% | 19-Jul | CA |
| 2.00% | Western Yarrow | NBS-LH18-GNY-2 | 90.87% | 9.08% | 0.05% | 0.00% | 89.00% | 80.87% | 19-Jun | WA |
| | | | | | | | | 0.00% | | |
| | **Blend Tag** | **WRI-19-0137** | **97.81%** | **1.99%** | **0.05%** | **0.07%** | **93.21%** | | | |

## BLEND RECEIPE

| VARIETY/KIND | LOT NO. | GROSS LBS | PURE SEED % |
|---|---|---|---|
| HorseHeaven, Bluebunch Wheatgrass | NBS-LH18-HHB-1 | 22.8 | 46.24% |
| Reliable, Sandberg's Bluegrass | NBS-CF18-REL-1 | 6.3 | 12.63% |
| Winchester, Idaho Fescue | U21-14-35008-1 | 5.3 | 10.77% |
| Pleasant Valley, Bottlebrush Squirreltail | NBS-BP18-PV-2 | 2.9 | 5.96% |
| Silky Lupine | SIS5461 | 2.4 | 4.96% |
| Arrowleaf Balsamroot | BASA-A | 2.9 | 5.92% |
| Snow Buckwheat | ERNI14-079 | 1.5 | 2.64% |
| Sulfur Buckwheat | 763 | 1.5 | 2.96% |
| Nineleaf Biscuitroot, Lomatium sp. | LOTR-CA | 1.9 | 3.91% |
| Western Yarrow | NBS-LH18-GNY-2 | 1.0 | 1.82% |
| 0 | 0 | 0.0 | 0.00% |
| **TOTAL GROSS LBS:** | | 48.6 | 97.81% |

**Western Reclamation**

P.O. Box 210
Eltopia, WA 99330

**Lot # :** WRI-19-0137 **Customer:** WGH:SaddleRockMix, Wenatchee

| Variety/Kind | Pure Seed | Germ | Test Date | Origin |
|---|---|---|---|---|
| HorseHeaven, Bluebunch Wheatgrass | 46.24% | 95.00% | 19-Mar | WA |
| Reliable, Sandberg's Bluegrass | 12.63% | 95.00% | 19-Mar | WA |
| Winchester, Idaho Fescue | 10.77% | 95.00% | 19-Apr | OR |
| Pleasant Valley, Bottlebrush Squirreltail | 5.96% | 88.00% | 19-Jan | WA |
| Silky Lupine | 4.96% | 98.00% | 19-Sep | ID |
| Arrowleaf Balsamroot | 5.92% | 92.00% | 19-Jun | ID |
| Snow Buckwheat | 2.64% | 71.00% | 19-Oct | ID |
| Sulfur Buckwheat | 2.96% | 77.00% | 19-Sep | UT |
| Nineleaf Biscuitroot, Lomatium sp. | 3.91% | 96.00% | 19-Jul | CA |
| Western Yarrow | 1.82% | 89.00% | 19-Jun | WA |
| 0 | 0.00% | 0.00% | 0-Jan | 0 |

| | |
|---|---|
| **Inert:** | 1.99% |
| **Weed:** | 0.05% |
| **Crop:** | 0.07% |
| **Noxious:** | None Found |
| **Net WT.** | |

# Qualified Product List

## Product Information

**Manufacturer :** Western Reclamation, Mesa - WA

**Product Name : Native and Reclamation Seed**

**Standard Spec :** 9-14.2, Erosion Control - Seed

**Product Description :** Washington State Department of Agriculture approved grass seed supplier
**Product Restriction :**

**Acceptance Code :** 2245
**Code Description :** Acceptance is by field verification of an acceptable Certificate of Compliance stating the seed meets the contract requirements. The Certificate of Compliance is required with each delivery of seed to the project. The label/tag shall show the formula as found in the Special Provisions and include the information specified in Standard Specification. At least one label/tag will be retained for each pay period.

**Last Updated :** Sep 13, 2010

**Contractors with WSDOT Click here for** Contractor Product Info Page

Copyright WSDOT © 2003 

Date: 10-24-19

To: City of Wenatchee, WGH, DW Excavating

From: Todd Harris, Western Reclamation, Inc.

Re: Saddle Rock Mix for the city of Wenatchee

WRI understands that mix, WRI-19-0137 does not meet the specifications as relayed in the contract section 32 75 00, Landscaping and Planting. There are several issues that are problematic with this type of specification.

First, you require the seed be purchased from specific vendors. Usually that is reserved for a SBA type, minority status vendor, not an open market, competitive bid. Are these vendors of minority status or sole source vendors that fit a certain criteria as relates to the requirements of such a vendor? If the city of Wenatchee wants seed purchased from a specific vendor then it would probably be better if the city purchased the seed and then competed the hydroseeding portion of the job. In an open market, competitive bid, it is highly unusual that a hydroseeding contractor is required to use specific vendors.

Are you sure your seed is eastern WA sourced? How do you ensure that? At WRI we run into a bid like this 3-5 times a year and they are all very small in acreage. The real issue is that they usually cost 2-3 times the price of competitively sourced seed from other areas. If you are not issuing a request for the source identified or selected class seed tags and a copy of the field harvest inspection from WSDA where the seed was sourced, you might not be getting the seed you think you are. WRI has found that local sourced seed is not a settled science. Local seed is no better than non local. If a vendor desires to pay 2-3 times the price we look for and rarely find the seed they request. We find that seed of the same species, when harvested in similar environmental parameters, soil type and precipitation zones, work just fine. We use seed from OR, ID, UT and NV because the areas harvested on most low precipitation type species are similar to Eastern WA. I think it would be hard to justify local source seed price against a competitive sourced seed. Why is it better?

In most cases the specification for these bids are written up to two years before the project. When you get to the time of needing the seed will the native seed for the mix be harvested that year? Not all native seed species make seed every year and in Eastern WA, most native seed makes very poor quality seed. It is inevitable that a substitution will be required in many native mixes, at least that is what we have found. The substitutions, for the most part are the same species they just come from a better location to harvest the seed, often out of state. This keeps the seed competitively priced and often results in better quality seed for our mixes. When the local seed is unavailable from these two vendors, who proposes the substitutes and where does the substituted seed come from? I think that is important to ask every time to ensure the customer is getting as close to what they want when it comes to the seed.

WRI strongly urges you to buy the seed yourself when you require a specific vendor because it is really not a competitive bid in that case. If you want to pay extra for the seed, can you justify it with proof that the local seed is better? At WRI, we don't think so.

If you have any questions regarding our comments please call. These discussions help us to educate one another and to learn about the expectations of our customers . Thank you.

Western Reclamation, Inc. PO BOX 210 Eltopia, WA 99330 Office 509-297-4500 cell 509-531-1702

# APPENDIX F
## Department of Ecology Correspondence

**From:** Winslow, Frank (ECY)
**To:** Charlotte Mitchell
**Cc:** Nick Rohrbach
**Subject:** RE: Saddle Rock Phase 1 IRA Construction - SR03 and SR08 confirmation soil results
**Date:** Monday, October 14, 2019 10:34:05 AM
**Attachments:** image001.png
Confirmatory Lab Data.xlsx

---

[EXTERNAL]

Hi Charlotte,

Ecology has reviewed the confirmatory XRF and laboratory data from SR-03 and SR-08 as well as photographs from these areas.

Ecology has no objection to proceeding with hydro-mulch seeding within these areas with the following considerations/clarifications.

- In the SR-03 area, the final grade in the northern part of former waste rock pile has a swale running to the north (see attached photo IMG_1141.jpg). There is some potential for runoff within this swale causing erosion in the future, especially in the period before vegetation has had a chance to recover. Therefore, installation of some erosion prevention feature(s) such as straw wattles, and/or coir or jute netting or matting may be warranted within this swale.

- In the SR-08 area, surface grading is evidently not complete in the vicinity of the adit, which will be plugged (see IMG_8730.jpg). This may mean more than one application of hydro-mulch seeding in the SR-08 area after the grade has been smoothed in the vicinity of the adit. IMG2.jpg suggests that some additional grade smoothing below the adit may be needed. We are assuming that the final grade next to the adit will be adjusted by dragging down some of the soil surrounding the adit.

I talked with my boss regarding the confirmatory data and she has requested the following: One close-in background sample is requested at each waste rock pile area to be analyzed for the eight metals. The locations should be one of the background sampling locations from the June 26, 2019 Technical Memorandum with higher arsenic concentrations. The following are suggested sampling locations and depths:

| Area | Sample |
|---|---|
| SR-01 | SR-01-US-03-2-4” |
| SR-02 | SR-02-US-01-0-2” |
| SR-03 | SR-03-US-05-4-6” |
| SR-04 | SR-04-US-03-4-6” |
| SR-05 | SR-05-US-04-4-6” |
| SR-08 | SR-08-US-04-2-4” |

The purpose for these close-in background samples is to demonstrate that metals concentrations in excess of MTCA cleanup levels or Terrestrial Ecological Evaluation (TEE) criteria in confirmatory

samples are associated with natural mineralization. While Ecology believes this to be the case, these close-in background samples are anticipated to provide a more "bullet-proof" case. Arsenic has been successfully used as an "Indicator Hazardous Material" to guide and direct the cleanup, but Ecology still has to be able to justify what remains at the site.

We also request resampling of one confirmatory location (SR03-CS-04-02) because this location had anomalously high results for mercury and suspect results for manganese. There is no hurry for the collection of these additional data.

I will be unavailable for further discussion until Friday of this week due to other project demands.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

---

**From:** Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Sent:** Friday, October 11, 2019 11:27 AM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Cc:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Subject:** FW: Saddle Rock Phase 1 IRA Construction - SR03 and SR08 confirmation soil results
**Importance:** High

Frank,

See below for good news from GeoEngineering.

Happy Friday,

**Charlotte Mitchell, PE**
**Capital Project Manager**
**Parks, Recreation and Cultural Services**

1350 McKittrick St • Wenatchee, WA 98801

Telephone: (509) 888-3662• Fax: (509) 888-3201
Email: cmitchell@wenatcheewa.gov Web: www.wenatcheewa.gov

NOTICE OF PUBLIC DISCLOSURE: This e-mail account is public domain. Any correspondence from or to this e-mail account may be a public record. Accordingly, this e-mail, in whole or in part, may be subject to disclosure pursuant to RCW 42.56, regardless of any claim of confidentiality or privilege asserted by an external party.

---

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Friday, October 11, 2019 11:17 AM
**To:** Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Cc:** Dustin G. Wasley <dwasley@geoengineers.com>
**Subject:** Saddle Rock Phase 1 IRA Construction - SR03 and SR08 confirmation soil results
**Importance:** High

**CAUTION:** This email originated from outside of the City of Wenatchee. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Charlotte,

We received the lab confirmation results for SR-03 and SR-08. These data indicate we are in general compliance with the sampling plan, plans/specs and revised technical memorandum we completed for the Phase 1 IRA. Good news!

We also compared the attached lab confirmation data to the XRF shots taken in the field and we are tracking good there. Our XRF data compared to these lab data are within the expected range of variability/precision, meaning the data continues to be comparable and the level of confidence of data is strong. This was a similar situation with the data we collected last April, where we looking for comparable to be within 20% of each other (I believe we are within 10% with this data!).

Regarding the other metals analyzed per sampling plan requirements, the hazardous analytes (lead and mercury) were either not detected or detected less than Ecology's MTCA Method A criteria, within one exception. Sample ID SR03-CS-04-02 was detected with a mercury concentration of 2.4 mg/kg (criteria for cleanup is 2.0) slightly above Ecology's criteria. Even with this slight detection, the concentration of Mercury is within the range of naturally occurring background concentrations (the mineral 'cinnabar' was noted within the park area and mercury sulfide is typically associated with cinnabar) collected by GeoEngineers and Hart Crowser (previously). The intent of this excavation work is also focused on arsenic, the primary chemical of concern. **Therefore, the need to remove the area around the mercury detection is not necessary in our opinion.**

Based on this info, DWE does not need to remove any further waste rock/soil and can proceed with site restoration activities SR-03 and SR-08.

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

---

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or

figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

## Teresa Hughbanks

**From:** Nick Rohrbach
**Sent:** Monday, November 11, 2019 3:05 PM
**To:** Justin D. Orr
**Subject:** FW: Gold Knob Cleanup Status as of October 25, 2019

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Tuesday, October 29, 2019 7:46 AM
**To:** Nick Rohrbach <nrohrbach@geoengineers.com>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Hi Nick and Charlotte,

Based on review of the XRF data, and previously mentioned field observations, Ecology concurs that SR02 cleanup is complete. Revegetation of the SR02 area can proceed when you are ready.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Tuesday, October 29, 2019 7:34 AM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Thanks for the confirmation of cleanup work at SR-03 and -08, Frank!

FYI: the confirmation XRF shots at SR-02 are complete, please take a review. We took a couple extra shots to fill in some of the gaps to the sides. We should be receiving the lab soil sample results very soon and we'll forward those for your use also.

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

---

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Monday, October 28, 2019 9:28 AM
**To:** Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>; Nick Rohrbach <nrohrbach@geoengineers.com>
**Subject:** Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Hi Charlotte and Nick,

Thank you for meeting onsite last Friday.

As previously discussed, Ecology concurs that cleanup at SR03 and SR08 is complete, and we understand that re-seeding will take place this week.

Cleanup at SR02 appears to be complete, and the available confirmatory XRF data are also consistent with this conclusions. Please let me know when the remainder of XRF confirmatory data from SR02 have been uploaded so that we can memorialize cleanup completion at SR02.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

## Teresa Hughbanks

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Friday, November 1, 2019 2:38 PM
**To:** Nick Rohrbach; Charlotte Mitchell
**Cc:** Justin D. Orr
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Hi Nick,

Thank you for your reply and clarifications. Ecology concurs with the conclusion that cleanup at SR01 is complete. With excavation in this last area complete, the Phase 1 field program is also complete, pending completion of revegetation and roadwork efforts.

Ecology does not need to observe these final activities, though please include photographs of the final remedial areas (after revegetation material application) within your Remedial Action Completion report.

Congratulations, and thanks for the excellent work!

Regards, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

---

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Friday, November 1, 2019 2:25 PM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Cc:** Justin D. Orr <jorr@geoengineers.com>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Frank,

My understanding is that the contractor has not quite started to de-mobilized yet. They have completed hydroseeding/BFM of SR-03 and -08, but have yet to complete the restoration work at Sr-02 and -01, and other disturbed areas. The contractor is awaiting final word from City that the SR-01 limits are complete at this time. The contractor still needs to close the adit at SR-01, which is planned for early next week. I believe the contractor is planning to install the water bars, as you indicated below, during their final restoration activities next week, per our plan sheets.

We understand the data question in SR01 pertaining to the final remedial action objective: “distribution of data”. The SR01 confirmatory data has a different data distribution than the SR01 background as well as Phase 1 background as a whole. Per our response email (within this email string) earlier this week, we believe this data distribution of confirmation XRD data is tied to your Hypothesis #1 (also below).

To answer your 2 additional questions described below, here are the responses regarding the question including descriptions of SR01 waste rock versus native soil:

- Waste rock at SR-01 was visually different to the identified native soil, with gravel-like consistency with occasional larger clasts/cobbles, vastly different from the native soil elevation with majority fine grained soils and near zero percentages of gravel or larger cobbles. There were obvious visible differences in what was removed versus what remained, with the color of the waste rock contained in lighter brown to dark brown soils.

- You are correct that the lower portion and south side of SR-01 generally consisted of brown silty sand/sandy silt. In all the final XRF shots, this material tested below the screening level of 95 mg/kg.

- XRF1 at SR-01 tested at 180 ppm, and was taken on the sidewall of the excavation near the adit. We determined that this was native soil based on the observation that the soil (dark brown silt) matched the soils on the sidewalls above the waste rock on both sides of the adit. Additionally, we took several XRF test shots on both side walls and had results of 120 ppm to 180 ppm, that represent native soil.

- Our final grade on the north side of the slope consisted of light grey sandy silt and fine silty sand. We determined that this was native soil based on the root system of well-established stumps uncovered during excavation activities, the fact that our final grade matched the estimated final grade of the site, and because this soil type was observed north and east of the adit and was previously determined to be native soil. XRF shots taken in this soil outside the excavation limits were 100 ppm to 150 ppm.

- XRF6, XRF7, XRF11 and XRF19 tested between 121 ppm and 160 ppm. All of these samples were in light grey sandy silt and fine silty sand on the north side of the slope. Additionally, these samples were near the large native rock outcrop on the northeast side of SR-01, or near XRF8, XRF13 or XRF14, which were identified as native rock.

***We also received the confirmation soil sample Lab data. It says we are in compliance with the sampling plans, except for 2 samples with elevated arsenic concentrations.

- Sample SR01-CS-02-02 was collected within native soil where elevated arsenic concentrations were in seen with XRF sample ‘XRF6” location.
- Sample SR01-CS-06-02 was collected at the toe of the waste rock pile and the results are anomalous, since the sample was collected in the native soil observed, as described in the bullet above. Justin indicated we did a DUP XRF shot at SR01-CS-06-02 and it was 59ppm both times. He also took a shot of the bag used to homogenize the soil sample and it as around 55ppm.

Please let us know if this information has satisfied Ecology’s determination for the completion of SR-01. Otherwise, have a good weekend!

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

---

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Friday, November 1, 2019 9:26 AM
**To:** Nick Rohrbach <nrohrbach@geoengineers.com>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Cc:** Justin D. Orr <jorr@geoengineers.com>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

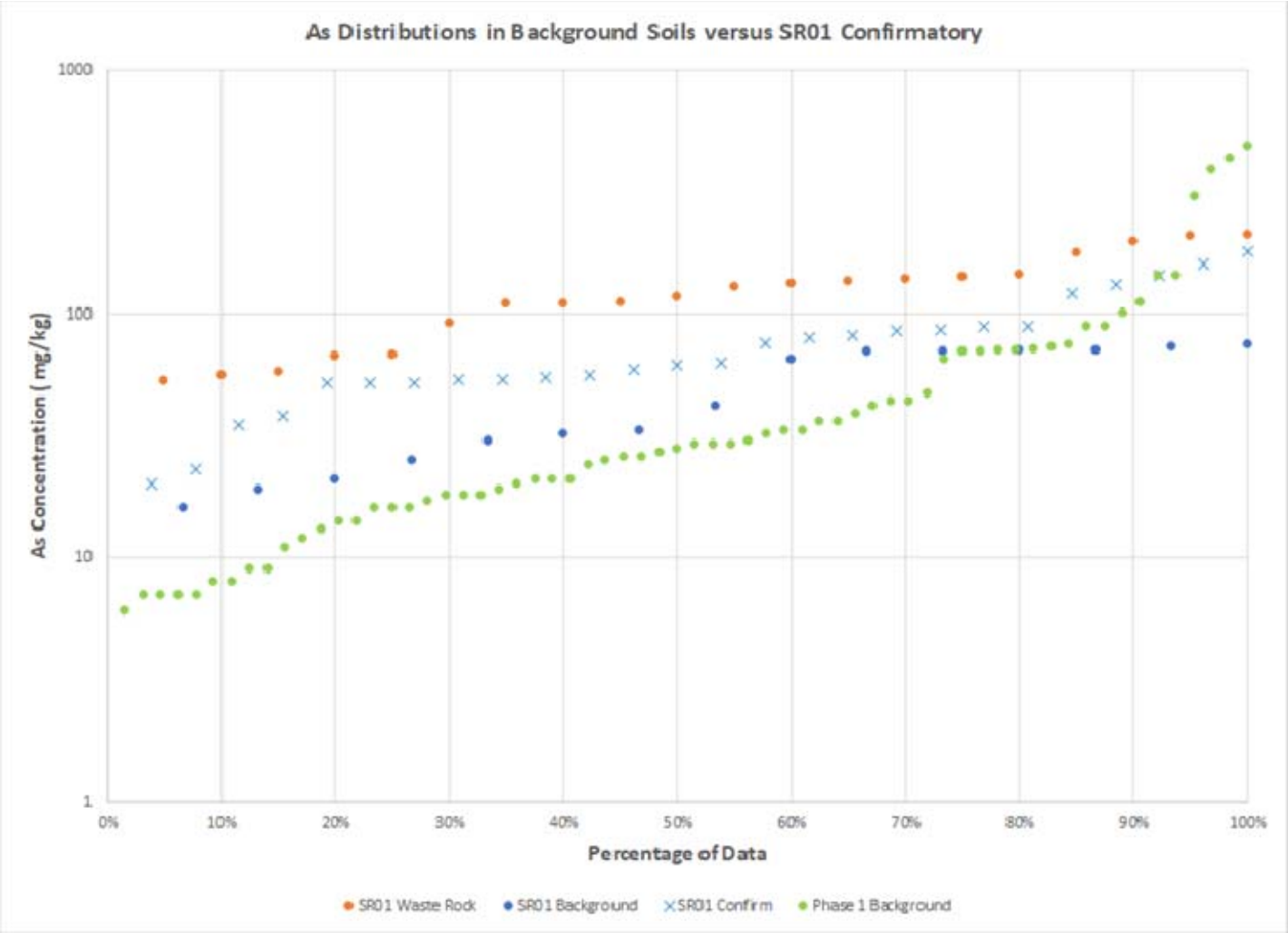
[EXTERNAL]

Hi Nick and Charlotte,

I anticipate that the contractor has either de-mobilized or is in the process thereof.

If not, one thought on the main Phase 1 trail – are some water bars needed to prevent long term erosion? I think we might have briefly discussed that during a site visit. Water bars certainly make the road rougher, but may make a big difference in the long term viability of the road.

To clarify my October 29, 2019 email, the data question in SR01 pertained to the final remedial action objective: "distribution of data". The SR01 confirmatory data definitely have a different data distribution than the SR01 background as well as Phase 1 background as a whole:




The good news is that SR01 confirmatory data are better than SR01 waste rock. That shows that there was value added by the SR01 waste rock removal. The bad news is that the confirmatory are worse than the SR01 background that was previously defined.

There are two hypothesis that could account for this difference; Hypothesis #1: the area of the waste rock in SR01 is naturally enriched with background arsenic more than surrounding areas. This is the hypothesis that Ecology and GeoEngineers think is likely. An alternative hypothesis (Hypothesis #2) is that some waste rock remains in this area or the area has seen some leaching effects from the waste rock. The arguments against Hypothesis #2 are that the we are now below previous grade (as evidenced by topography and trees), no visible waste rock remains, and no leaching effects were observed at the other Phase 1 waste rock areas. I also like the argument of proximity to rock outcrop with elevated concentrations by all of the highest confirmatory soil results. I think this argument probably gives the strongest basis to support Hypothesis #1 and also gives the strongest rationale for no additional confirmatory sampling.

The part I am not so clear on is the “no visible waste rock remains”. During my site visit, the lower end of SR01 that was being excavated looked more like brown soil than the waste rock observed at SR02, SR03, and SR08. However, I did not look so closely. Can you please clarify what, if any, visual observations clearly differentiated waste rock in SR01 from native soils? Were there always visible differences in the materials that were removed versus the materials that remained? Please provide detailed discussion on this question including descriptions of SR01 waste rock versus native soil. After receipt of that response; I anticipated Ecology will provide our final concurrence on completion of excavation at SR01.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

---

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Wednesday, October 30, 2019 10:17 AM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Cc:** Justin D. Orr <jorr@geoengineers.com>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Morning Frank,

Thanks for sending over the comparison chart of the data collected to date, including the SR-01 confirmation sampling data. While we have some confirmation samples at SR-01 that exceeded the background samples collected at SR-01, this can be attributed to reaching the preexisting surface elevation (that would represent conditions prior to waste rock placement) and naturally occurring mineralized area(s).

Utilizing our project cleanup criteria and the following facts, we believe the SR-01 excavation is complete:

1) The overall XRF mean arsenic concentrations at SR-01 (excluding rock samples) is below the 95 mg/kg cleanup level, even with 5 samples greater than 100 mg/kg. The mean concentration is approximately 73 mg/kg.
2) That visible waste rock was removed on all areas of SR-01,
3) The majority of the confirmation XRF samples are less than 95 mg/kg,
4) The final topography is consistent with the estimated native topography,
5) Excavation of SR-01 was completed approximately 6-12 inches further than waste rock was observed, consistent with other waste rock pile excavations, in an effort to be conservative of final vertical limits,
6) The elevation at which the 'higher' XRF sample locations (at or above 95 mg/kg) were located near rock outcrops where natural mineralization likely exist (similar to the exposed bedrock locations at SR-02 and -03),
7) The elevation at which excavation was completed, was the same elevation of at least 2 old/well established pine tree stumps that existed before waste rock placement.

Therefore, we do not feel that additional exploration and sampling is necessary and we have fulfilled the goals of the interim action cleanup at SR-01.

A few additional pics for your reference:

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

---

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

---

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Tuesday, October 29, 2019 3:59 PM
**To:** Nick Rohrbach <nrohrbach@geoengineers.com>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Cc:** Justin D. Orr <jorr@geoengineers.com>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Here is a chart I made to compare the SR01 confirmation results with Phase 1 background distributions. I excluded the rock samples.

The Phase 1 confirmatory data is less than the SR08 highest background, but generally higher than the Phase 1 background. This appears to be due to where we defined background relative to the mineralized strip at SR01. Note that none of the SR-01 background samples exceeded 100 mg/kg, and we have 19% of the 26 confirmatory samples exceeding 100 mg/kg.

I don't think it likely makes sense to excavate more, but I see one way that we might be able to prove that. If we dug (or hand auger) down at the five locations with As greater than 100 mg/kg and found that deeper soils are still greater than 100 mg/kg, that should help make the case that the remaining soils represent background conditions as opposed to waste materials. What do you think? It seems preferable to trying to dig more. Descriptions of the materials at these locations (if they appear to be soil rather than waste rock) could also help make that case. However, a lot of the material that was being removed looked like brown soil to me – not as visually clear as at the other piles. Do you have visual observations of changes in materials that might help make the case that all of the waste rock is gone?

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

---

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Tuesday, October 29, 2019 3:40 PM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Cc:** Justin D. Orr <jorr@geoengineers.com>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

OK Frank. Here's some pics of final grades at SR-01. The first pic is standing at the very bottom of the limits (toe of the slope) looking up, the second one down is the perspective looking north (roughly midway of the pile) and the last one is roughly the mid point of the pile area near the remaining 'bench' of soil (looking upwards).

If you would like, we can send over a few more near the upper portion of SR-01 and the adit tomorrow morning. Justin is already offsite for the day.

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

---

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

---

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Tuesday, October 29, 2019 3:24 PM
**To:** Nick Rohrbach <nrohrbach@geoengineers.com>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Hi Nick,

I'm looking at the data now. Any chance of some photos to see the final grade? We were getting close last Friday, but still good to see.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office

1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Tuesday, October 29, 2019 2:53 PM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Frank, late breaking news for you. We have finished the SR-01 XRF shots and have collected the soil confirmation samples. Can you please review the web map and let us know your thoughts on completion of SR-01?

FYI: there are a couple shots where the native soil elevation was still above our criteria, but we had met all other criteria for this project. The native soil observed at those elevations were not waste rock or anthropogenically related.

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Tuesday, October 29, 2019 7:46 AM
**To:** Nick Rohrbach <nrohrbach@geoengineers.com>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Hi Nick and Charlotte,

Based on review of the XRF data, and previously mentioned field observations, Ecology concurs that SR02 cleanup is complete. Revegetation of the SR02 area can proceed when you are ready.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office

1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

**From:** Nick Rohrbach <nrohrbach@geoengineers.com>
**Sent:** Tuesday, October 29, 2019 7:34 AM
**To:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>
**Subject:** RE: Gold Knob Cleanup Status as of October 25, 2019

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Thanks for the confirmation of cleanup work at SR-03 and -08, Frank!

FYI: the confirmation XRF shots at SR-02 are complete, please take a review. We took a couple extra shots to fill in some of the gaps to the sides. We should be receiving the lab soil sample results very soon and we'll forward those for your use also.

**Nick Rohrbach**
**Senior Environmental Scientist 2 | GeoEngineers, Inc.**
**Mobile:** 509.899.9389
**Email:** nrohrbach@geoengineers.com

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

**From:** Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
**Sent:** Monday, October 28, 2019 9:28 AM
**To:** Charlotte Mitchell <CMitchell@WenatcheeWA.Gov>; Nick Rohrbach <nrohrbach@geoengineers.com>
**Subject:** Gold Knob Cleanup Status as of October 25, 2019

[EXTERNAL]

Hi Charlotte and Nick,

Thank you for meeting onsite last Friday.

As previously discussed, Ecology concurs that cleanup at SR03 and SR08 is complete, and we understand that re-seeding will take place this week.

Cleanup at SR02 appears to be complete, and the available confirmatory XRF data are also consistent with this conclusions. Please let me know when the remainder of XRF confirmatory data from SR02 have been uploaded so that we can memorialize cleanup completion at SR02.

Thanks, Frank

**Frank P. Winslow**
Toxics Cleanup Program
Department of Ecology – Central Regional Office
1250 W. Alder Street, Union Gap, WA 98903
(509) 454-7835
Frank.Winslow@ecy.wa.gov

Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.
Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.
Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.
Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.
Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

# APPENDIX G
## Decommissioning Documentation

# HOLT SERVICES, INC.

## Phone: (253) 604-4878

Contract Saddle Rock Trailhead Date 11-13-19

| NAMES OF MEN | HOURS | FORMATION | DEPTH |
|---|---|---|---|
| Rocky | 3.75 | 6:30 To 10:15 Travel To Site | |
| | 2 | 10:15 To 12:15 on site Take Cement out of Well To The South Video depth 8'8" Move To Well To The North Video Casing Stops at 4'4", open Hole To 3½' 8" | |
| | 1.50 | 12:15 To 1:45 Travel | |
| | .50 | 1:45 To 2:15 ½ hr Break | |
| | 2 | 2:15 To 4:15 Finish Travel To Shop | |
| | .25 | 4:15 To 4:30 Shop | |
| | | | |
| | | | |
| | | | |
| | | | |

Size Hole: _____ Drilling: _____ Size Casing: _____

Remarks: Well Casings are Cut OFF 1½ Feet below ground

Driller: Robert O Chipman

5

DEPARTMENT OF ECOLOGY
State of Washington

# Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

☐ Construction
☒ Decommission ⇨ Original NOI No. N/A

Ecology Well ID Tag No. _____

Site Well Name Saddle Rock 5

Consulting Firm Geo Engineers

Was a variance approved for this well/boring? ☐ Yes ☐ No

If yes, what was the variance for? No variance

Unknown driller / NO log correspondance w/ Frank Wilson

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) Ramlo Mike

Driller/Engineer/Trainee Signature _____

License No. 1199

Company Name Holt Services

If trainee box is checked, sponsor's license number: _____

Sponsor's signature _____

Notice of Intent No. AE S8044

Type of Well:

☐ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☒ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner City of Wenatchee

Well Street Address 1200 circle St

City Wenatchee County Chelan

Tax Parcel No. 57419

Location (see instructions): WWM ☐ or EWM ☐

SE ¼-¼ NW ¼, Section 16 Town 22N Range 20E

Latitude (Example: 47.12345) 47.398103

Longitude (Example: -120.12345) -120.332495

*(WGS 84 Coordinate System)*

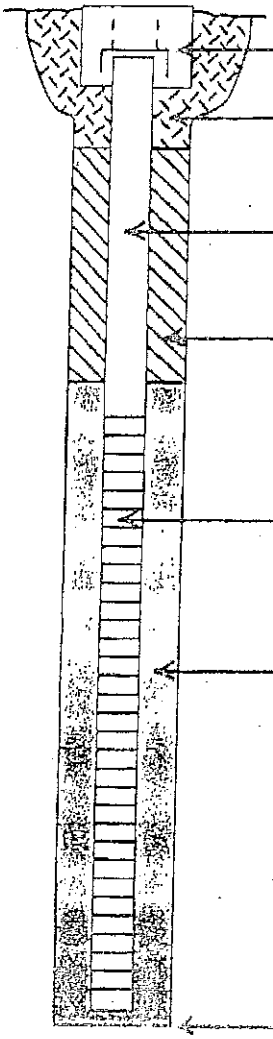
Borehole diameter 6 inches Casing diameter N/A inches

Static water level N/A ft below top of casing Date _____

☒ Above-ground completion with bollards ☐ Flush monument

Stick-up of top of well casing _____ ft above ground surface

Start Date _____ Completed Date _____

| Construction/Design | Well Data | Formation Description |
|---|---|---|
|  | MONUMENT TYPE: None<br>CONCRETE SURFACE SEAL: None ft.<br>PVC BLANK: N/A "x<br>BACKFILL: 0 – 10 ft.<br>TYPE: Bentonite<br>3 bags 3/8" Hydrated<br>PVC SCREEN: "x<br>SLOT SIZE: N/A<br>TYPE:<br>GRAVEL PACK: ft.<br>MATERIAL: NA<br>WELL DEPTH: 10' | 0 - 10 ft. open hole Rock back filled w/ Bentonite chips native on top 3"<br>- ft.<br>- ft.<br>- ft.<br>- ft. |

REMARKS Unknown driller / date we just vide recon and decommissioned unresisteed soil Bors

North

Decommission of mystery borings

DEPARTMENT OF ECOLOGY
State of Washington

# Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Notice of Intent No. AE 58044

Type of Work:

☐ Construction
☒ Decommission ⇨ Original NOI No. N/A

Ecology Well ID Tag No. N/A

Site Well Name Saddle Rock N boring

Consulting Firm GeoEngineers

Was a variance approved for this well/boring? ☐ Yes ☒ No

If yes, what was the variance for?

E-mail correspondance with Ecology Frank winslow

Type of Well:

☐ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☒ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other

↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner City of Wenatchee

Well Street Address 1200 circle st

City Wenatchee County Chelan

Tax Parcel No. 57419

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) Ranlo, Mike

Driller/Engineer/Trainee Signature

License No. 1199

Company Name Holt Services

If trainee box is checked, sponsor's license number:

Sponsor's signature

Location (see instructions): WWM ☐ or EWM ☐

SE ¼-¼ NW ¼, Section 16 Town 22N Range 20E

Latitude (Example: 47.12345) 47.398344

Longitude (Example: -120.12345) -120.33200

*(WGS 84 Coordinate System)*

Borehole diameter 6 inches Casing diameter ____ inches

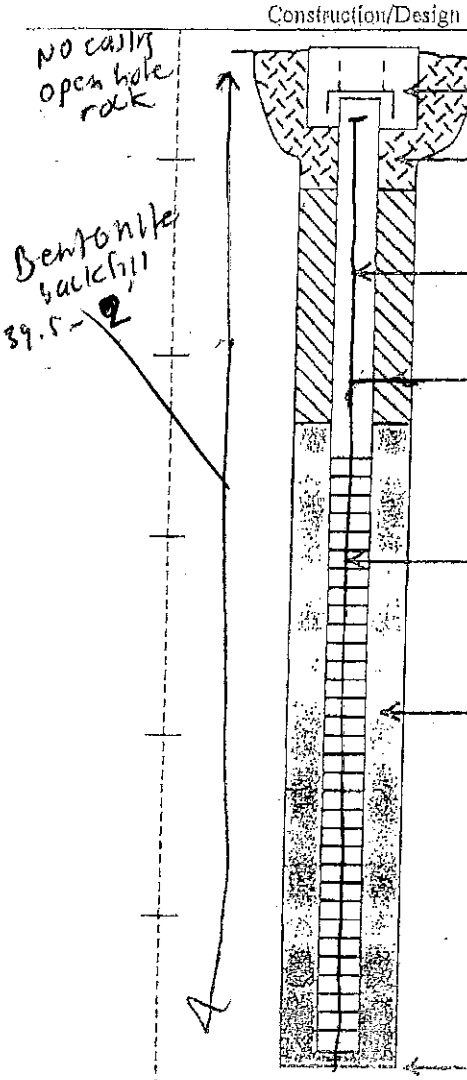
Static water level N/A ft below top of casing Date ____

☐ Above-ground completion with bollards ☐ Flush monument

↳ Stick-up of top of well casing ____ ft above ground surface

Start Date ____ Completed Date ____

## Construction/Design




## Well Data

## Formation Description

0-2' Native on top of Bent.

2 - 40.5 ft. Bentonite filled

- ft. open hole rock based off video Rem

- ft.

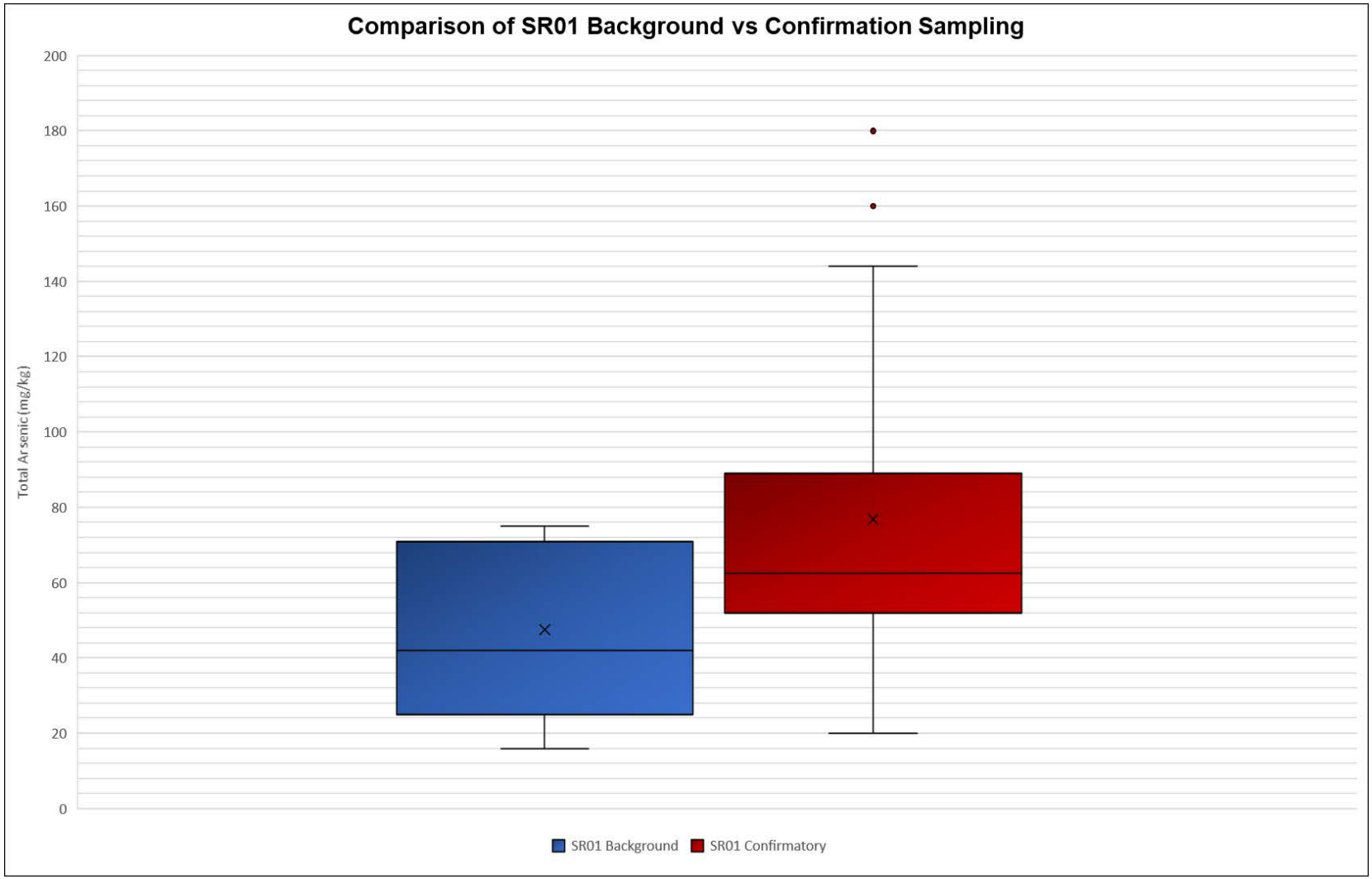
- ft.

- ft.

REMARKS Nobody know who drilled these Holt did video recon and decommission the borings

# APPENDIX H
## Statistical Analysis

# H1. Box and Whisker Plots




Notes:

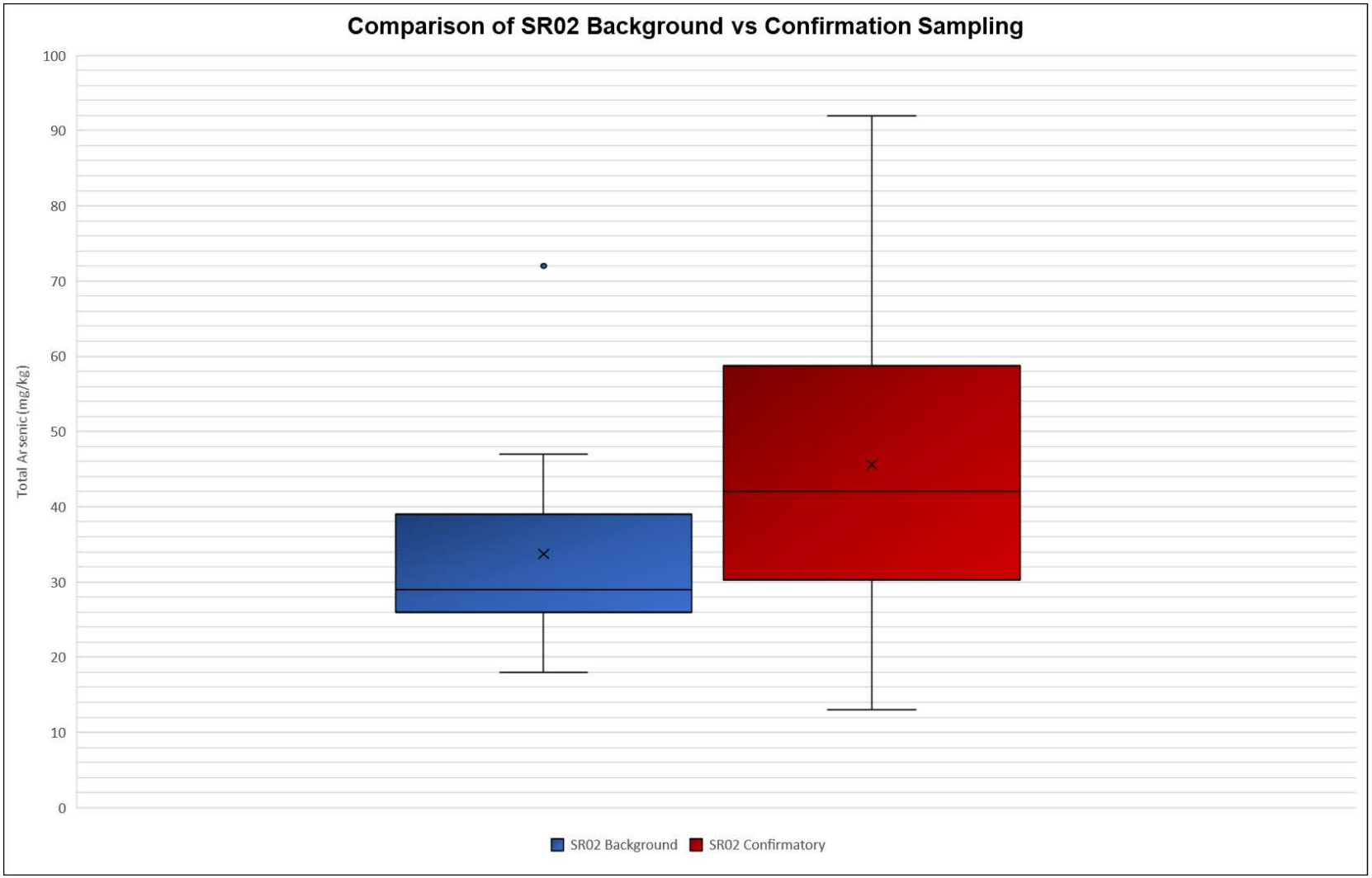
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

**Box and Whisker Plots**

Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

**Appendix H1**




**Box and Whisker Plots**

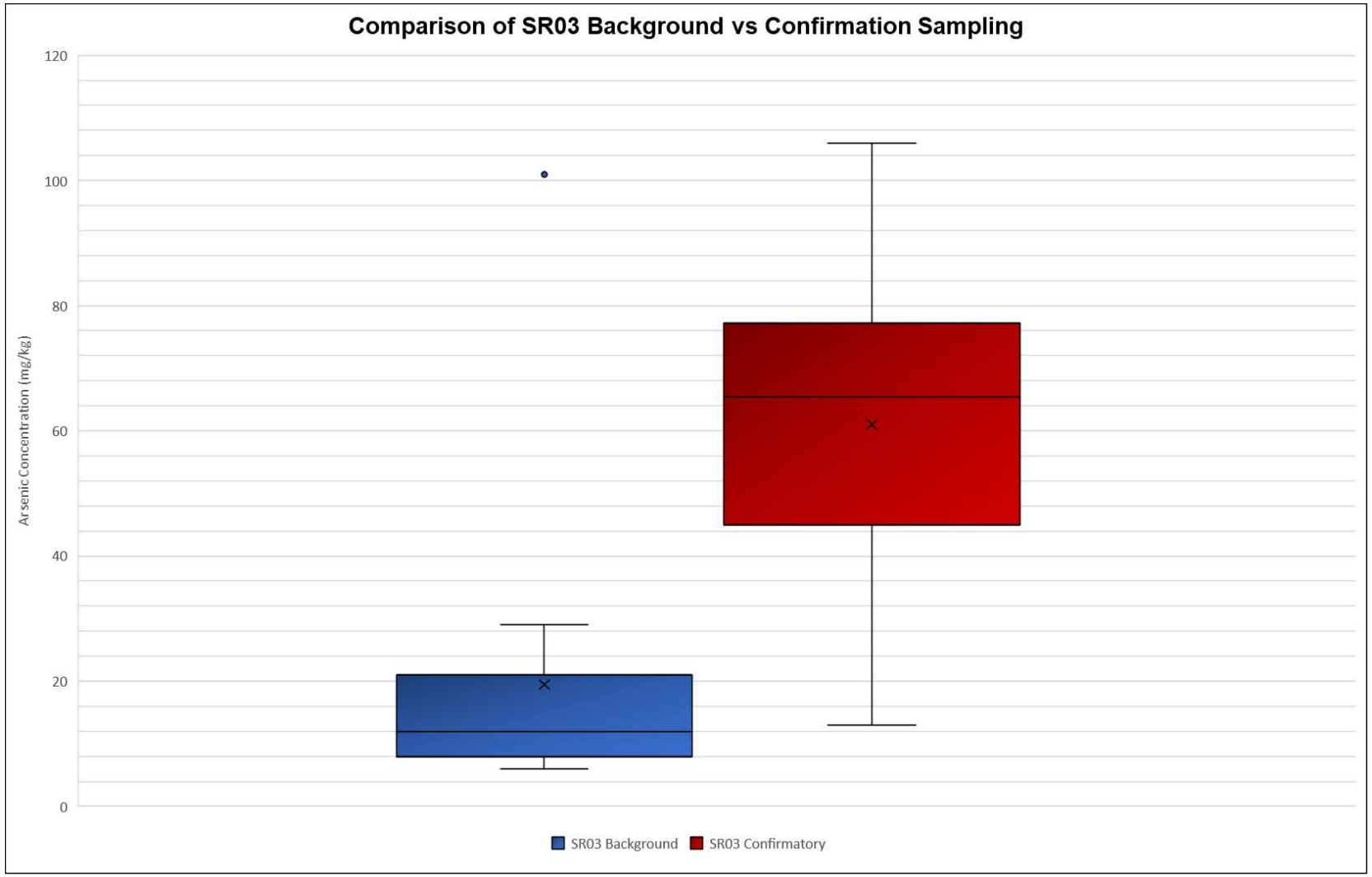
Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

**Appendix H1**

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.




**Box and Whisker Plots**

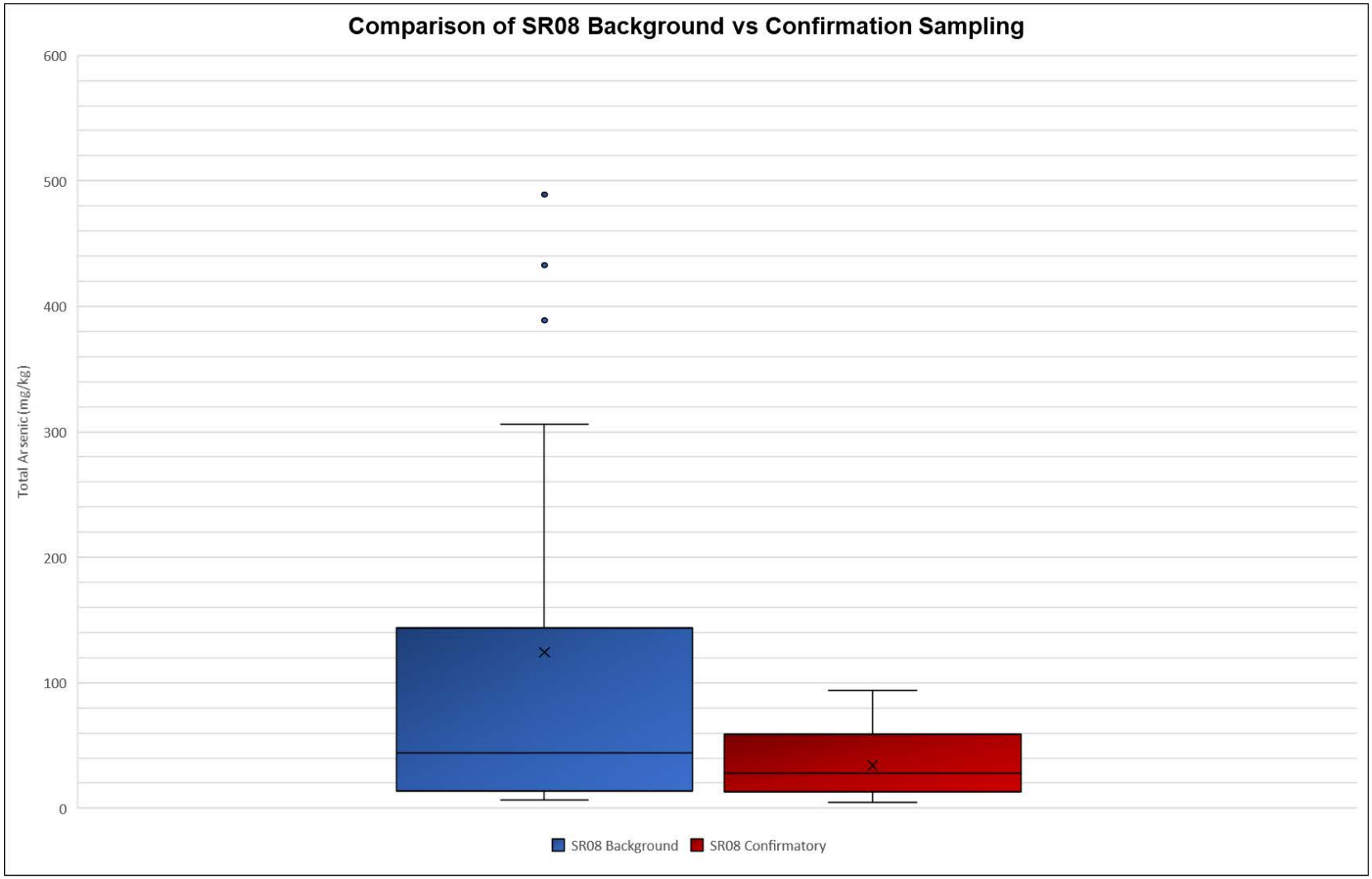
Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

**Appendix H1**

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.




**Box and Whisker Plots**

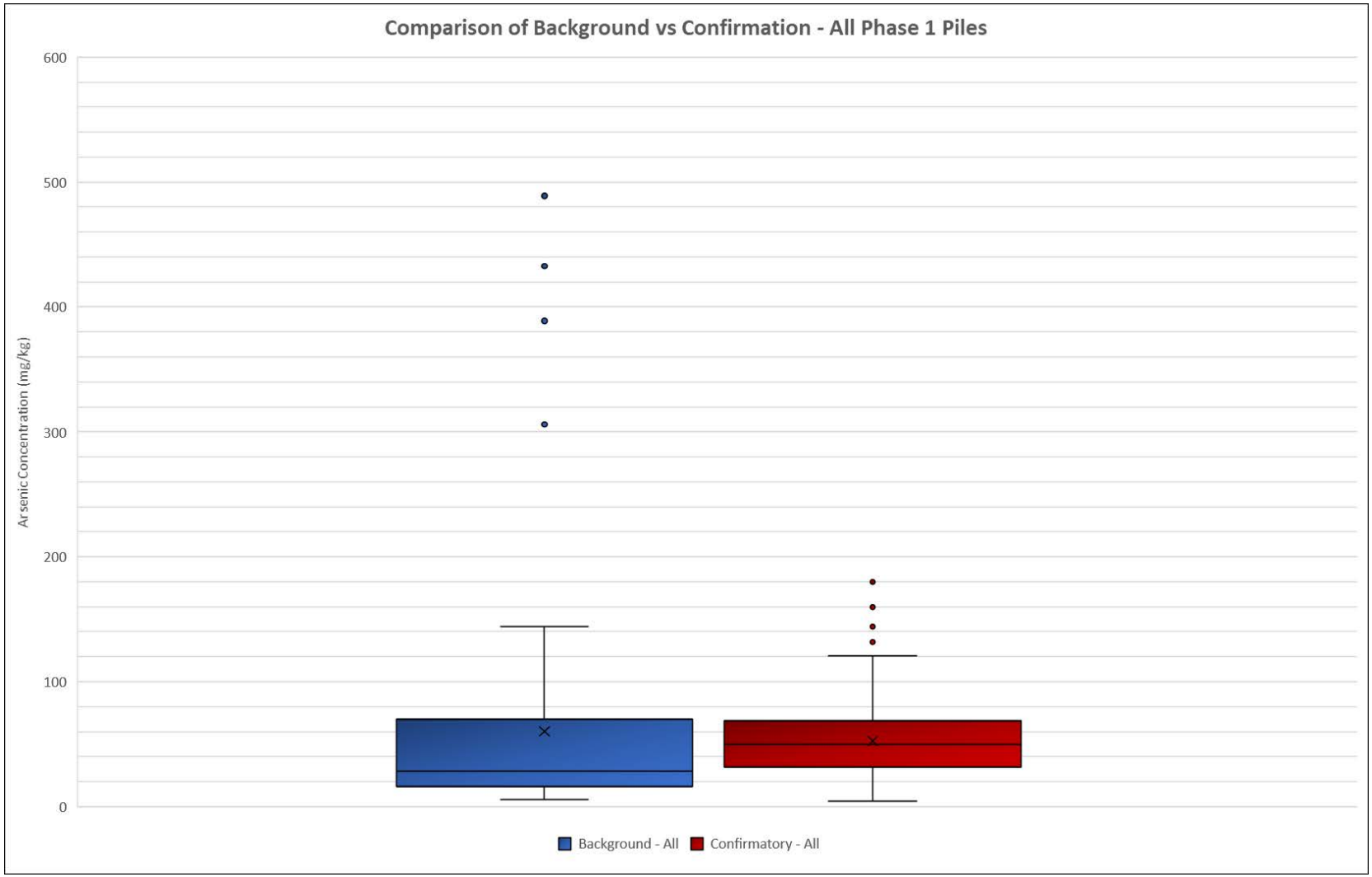
Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

**Appendix H1**

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.




**Box and Whisker Plots**

Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

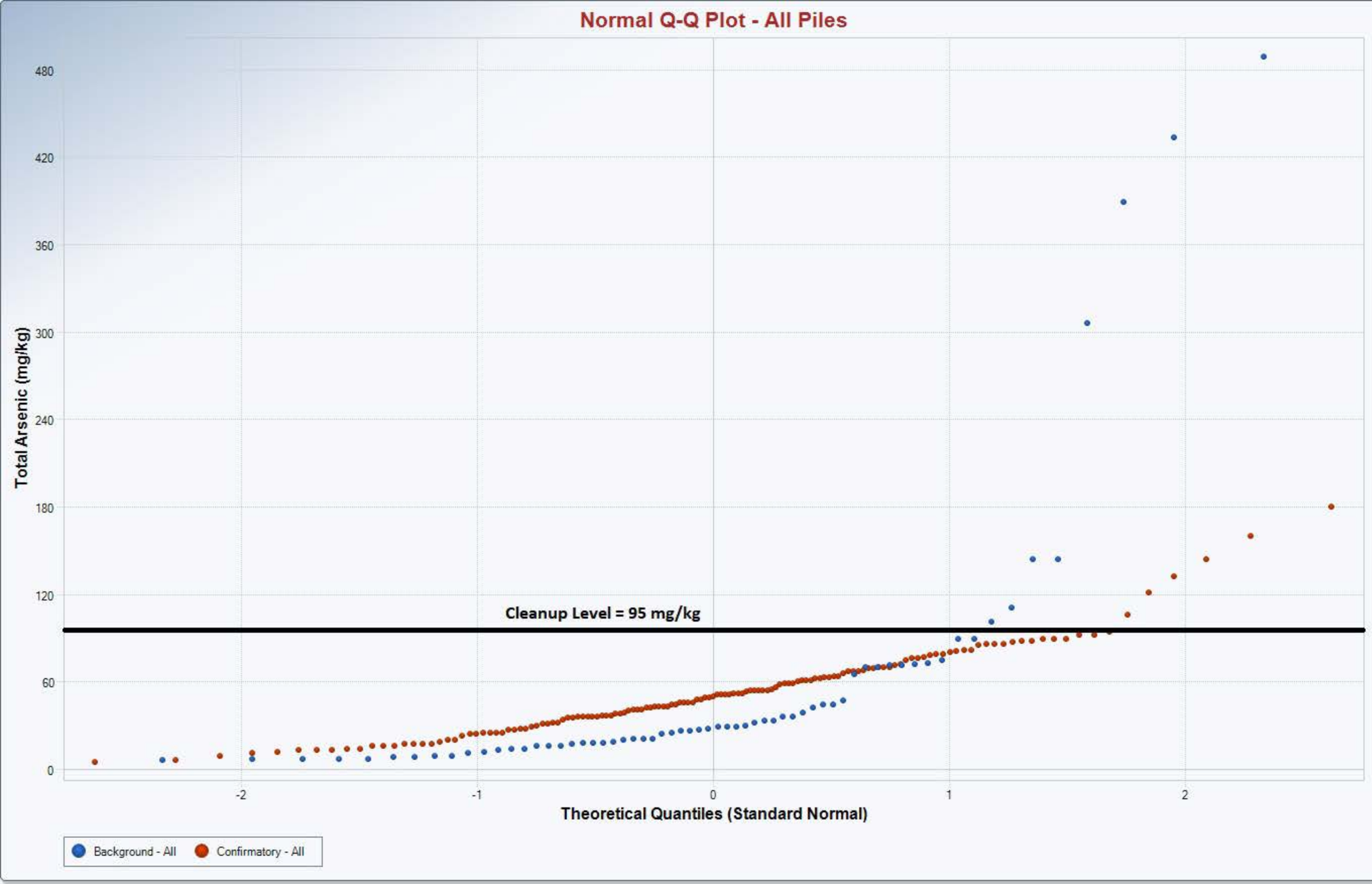
**Appendix H1**

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

## H2. Quantile-Quantile Plots

# Normal Q-Q Plot - All Piles




**Background - All**

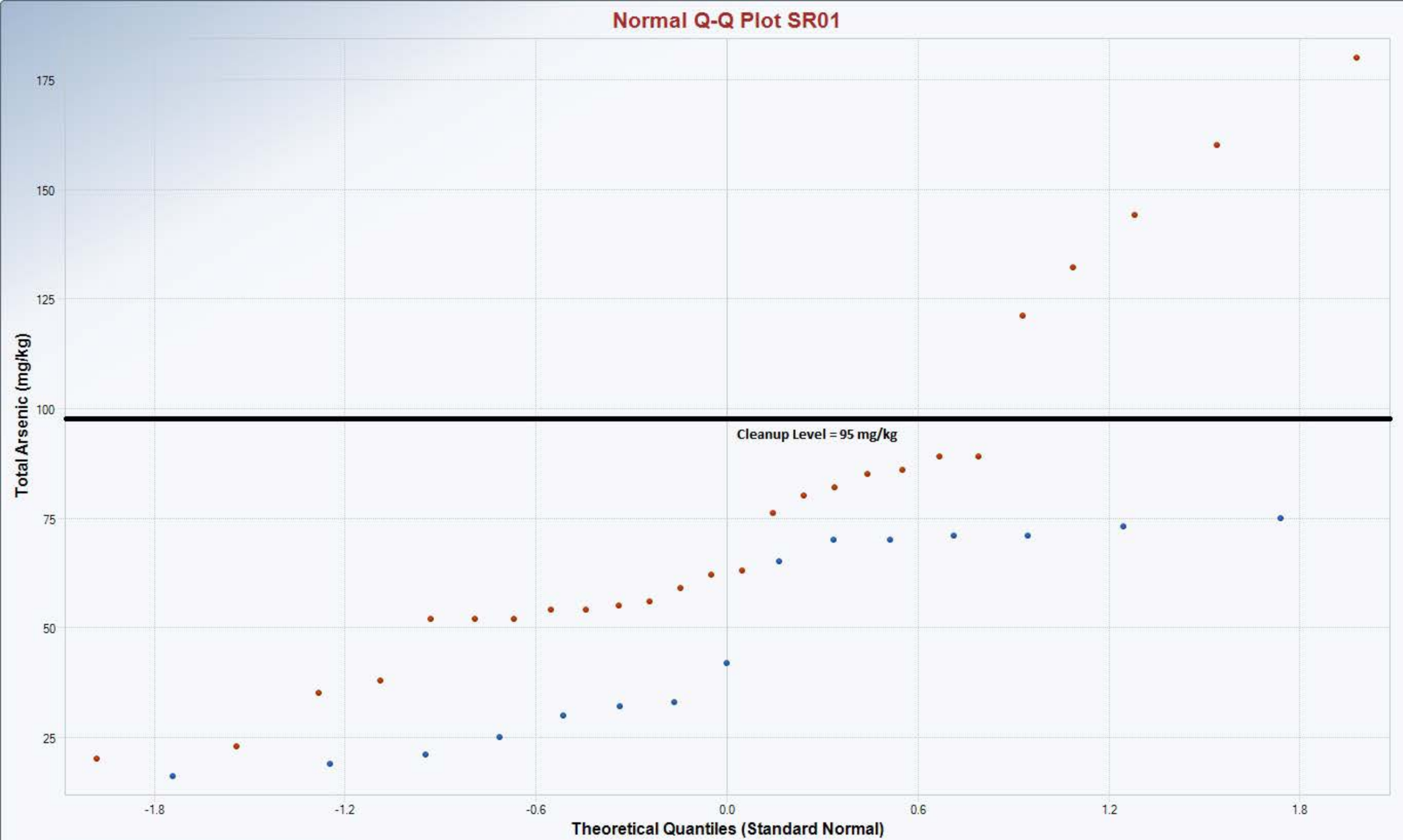
N = 64
Mean = 60.53
Sd = 96.38
Slope = 70.75
Intercept = 60.53
Correlation, R = 0.723

**Confirmatory - All**

N = 143
Mean = 52.66
Sd = 29.62
Slope = 28.73
Intercept = 52.66
Correlation, R = 0.962

☐ Best Fit Line

# Normal Q-Q Plot SR01




**SR01 Background**
- N = 15
- Mean = 47.53
- Sd = 23.34
- Slope = 22.6
- Intercept = 47.53
- Correlation, R = 0.925

**SR01 Confirmatory**
- N = 26
- Mean = 76.88
- Sd = 40.73
- Slope = 39.85
- Intercept = 76.88
- Correlation, R = 0.949

☐ Best Fit Line

# Normal Q-Q Plot SR02

Cleanup Level = 95 mg/kg

Total Arsenic (mg/kg)

80
60
40
20

-2.4 -1.8 -1.2 -0.6 0.0 0.6 1.2 1.8 2.4

Theoretical Quantiles (Standard Normal)

SR02 Background SR02 Confirmatory

**SR02 Background**
N = 15
Mean = 33.73
Sd = 13.51
Slope = 13.02
Intercept = 33.73
Correlation, R = 0.92

**SR02 Confirmatory**
N = 64
Mean = 45.58
Sd = 20.61
Slope = 20.39
Intercept = 45.58
Correlation, R = 0.974

☐ Best Fit Line

# Normal Q-Q Plot SR03

Cleanup Level = 95 mg/kg

Arsenic Concentration (mg/kg)

100
80
60
40
20

-1.8
-1.2
-0.6
0.0
0.6
1.2
1.8

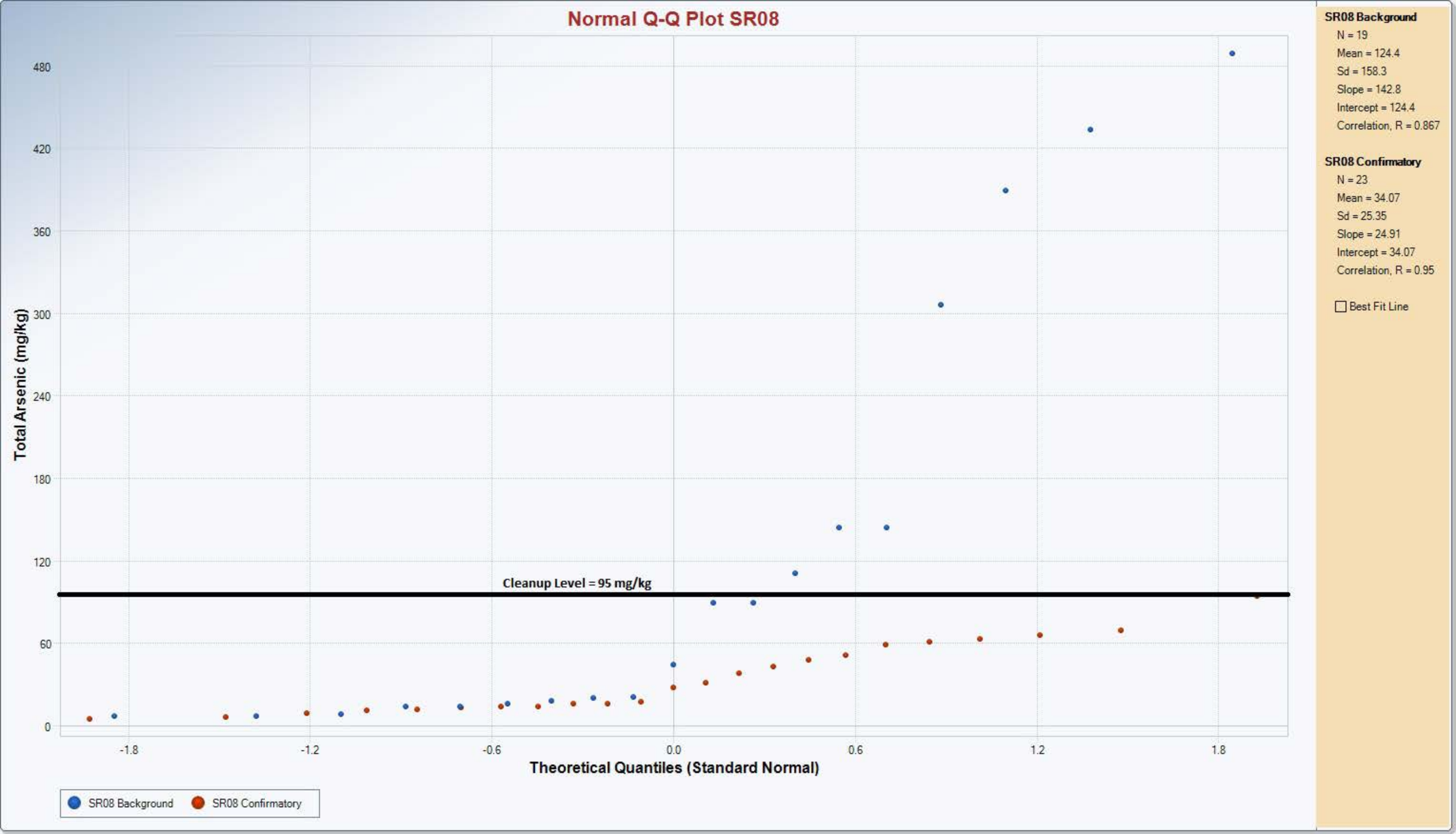
Theoretical Quantiles (Standard Normal)

SR03 Background
SR03 Confirmatory

**SR03 Background**
N = 15
Mean = 19.47
Sd = 23.62
Slope = 17.75
Intercept = 19.47
Correlation, R = 0.718

**SR03 Confirmatory**
N = 30
Mean = 61.03
Sd = 21.75
Slope = 22.11
Intercept = 61.03
Correlation, R = 0.989

☐ Best Fit Line


Normal Q-Q Plot SR08
Total Arsenic (mg/kg)
480
420
360
300
240
180
120
60
0
Cleanup Level = 95 mg/kg
-1.8
-1.2
-0.6
0.0
0.6
1.2
1.8
Theoretical Quantiles (Standard Normal)
SR08 Background
SR08 Confirmatory
SR08 Background
N = 19
Mean = 124.4
Sd = 158.3
Slope = 142.8
Intercept = 124.4
Correlation, R = 0.867
SR08 Confirmatory
N = 23
Mean = 34.07
Sd = 25.35
Slope = 24.91
Intercept = 34.07
Correlation, R = 0.95
Best Fit Line

## H3. Goodness of Fit Plots

## Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

**User Selected Options**

| | |
|---|---|
| Date/Time of Computation | ProUCL 5.1 1/2/2019 9:39:29 AM |
| From File | WorkSheet.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**SR01 Background**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 15 |
| Number of Distinct Observations | 13 |
| Minimum | 16 |
| Maximum | 75 |
| Mean of Raw Data | 47.53 |
| Standard Deviation of Raw Data | 23.34 |
| Khat | 3.844 |
| Theta hat | 12.37 |
| Kstar | 3.119 |
| Theta star | 15.24 |
| Mean of Log Transformed Data | 3.726 |
| Standard Deviation of Log Transformed Data | 0.564 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.925 |
| Shapiro Wilk Test Statistic | 0.828 |
| Shapiro Wilk Critical (0.05) Value | 0.881 |
| Approximate Shapiro Wilk P Value | 0.0122 |
| Lilliefors Test Statistic | 0.239 |
| Lilliefors Critical (0.05) Value | 0.22 |

**Data not Normal at (0.05) Significance Level**

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.885 |
| A-D Test Statistic | 1.007 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.259 |
| K-S Critical(0.05) Value | 0.223 |

**Data not Gamma Distributed at (0.05) Significance Level**

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.937 |
| Shapiro Wilk Test Statistic | 0.856 |
| Shapiro Wilk Critical (0.05) Value | 0.881 |
| Approximate Shapiro Wilk P Value | 0.0293 |
| Lilliefors Test Statistic | 0.253 |
| Lilliefors Critical (0.05) Value | 0.22 |

Data not Lognormal at (0.05) Significance Level

Non-parametric GOF Test Results

Data do not follow a discernible distribution at (0.05) Level of Significanc

SR01 Confirmatory

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 26 |
| Number of Distinct Observations | 22 |
| Minimum | 20 |
| Maximum | 180 |
| Mean of Raw Data | 76.88 |
| Standard Deviation of Raw Data | 40.73 |
| Khat | 3.923 |
| Theta hat | 19.6 |
| Kstar | 3.496 |
| Theta star | 21.99 |
| Mean of Log Transformed Data | 4.209 |
| Standard Deviation of Log Transformed Data | 0.538 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.949 |
| Shapiro Wilk Test Statistic | 0.898 |
| Shapiro Wilk Critical (0.05) Value | 0.92 |
| Approximate Shapiro Wilk P Value | 0.0142 |
| Lilliefors Test Statistic | 0.191 |
| Lilliefors Critical (0.05) Value | 0.17 |

Data not Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.984 |
| A-D Test Statistic | 0.458 |
| A-D Critical (0.05) Value | 0.748 |
| K-S Test Statistic | 0.136 |
| K-S Critical(0.05) Value | 0.172 |

Data appear Gamma Distributed at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.981 |
| Shapiro Wilk Test Statistic | 0.961 |
| Shapiro Wilk Critical (0.05) Value | 0.92 |
| Approximate Shapiro Wilk P Value | 0.44 |
| Lilliefors Test Statistic | 0.162 |
| Lilliefors Critical (0.05) Value | 0.17 |

Data appear Lognormal at (0.05) Significance Level

## Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

**User Selected Options**

| | |
|---|---|
| Date/Time of Computation | ProUCL 5.1 1/2/2020 9:40:57 AM |
| From File | WorkSheet.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**SR02 Background**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 15 |
| Number of Distinct Observations | 12 |
| Minimum | 18 |
| Maximum | 72 |
| Mean of Raw Data | 33.73 |
| Standard Deviation of Raw Data | 13.51 |
| Khat | 7.978 |
| Theta hat | 4.228 |
| Kstar | 6.427 |
| Theta star | 5.249 |
| Mean of Log Transformed Data | 3.455 |
| Standard Deviation of Log Transformed Data | 0.361 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.92 |
| Shapiro Wilk Test Statistic | 0.861 |
| Shapiro Wilk Critical (0.05) Value | 0.881 |
| Approximate Shapiro Wilk P Value | 0.0206 |
| Lilliefors Test Statistic | 0.17 |
| Lilliefors Critical (0.05) Value | 0.22 |

Data appear Approximate Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.961 |
| A-D Test Statistic | 0.325 |
| A-D Critical (0.05) Value | 0.738 |
| K-S Test Statistic | 0.15 |
| K-S Critical(0.05) Value | 0.222 |

Data appear Gamma Distributed at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.978 |
| Shapiro Wilk Test Statistic | 0.961 |
| Shapiro Wilk Critical (0.05) Value | 0.881 |
| Approximate Shapiro Wilk P Value | 0.658 |
| Lilliefors Test Statistic | 0.129 |

| | |
|---|---|
| Lilliefors Critical (0.05) Value | 0.22 |

Data appear Lognormal at (0.05) Significance Level

SR02 Confirmatory

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 64 |
| Number of Distinct Observations | 41 |
| Minimum | 13 |
| Maximum | 92 |
| Mean of Raw Data | 45.58 |
| Standard Deviation of Raw Data | 20.61 |
| Khat | 4.979 |
| Theta hat | 9.154 |
| Kstar | 4.756 |
| Theta star | 9.583 |
| Mean of Log Transformed Data | 3.716 |
| Standard Deviation of Log Transformed Data | 0.47 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.974 |
| Approximate Shapiro Wilk Test Statistic | 0.929 |
| Approximate Shapiro Wilk P Value | 0.00123 |
| Lilliefors Test Statistic | 0.117 |
| Lilliefors Critical (0.05) Value | 0.111 |

Data not Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.988 |
| A-D Test Statistic | 0.267 |
| A-D Critical (0.05) Value | 0.754 |
| K-S Test Statistic | 0.0573 |
| K-S Critical(0.05) Value | 0.112 |

Data appear Gamma Distributed at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.993 |
| Approximate Shapiro Wilk Test Statistic | 0.969 |
| Approximate Shapiro Wilk P Value | 0.253 |
| Lilliefors Test Statistic | 0.0611 |
| Lilliefors Critical (0.05) Value | 0.111 |

Data appear Lognormal at (0.05) Significance Level

## Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

**User Selected Options**

| | |
|---|---|
| Date/Time of Computation | ProUCL 5.1 1/2/2020 9:41:32 AM |
| From File | WorkSheet.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**SR03 Background**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 15 |
| Number of Distinct Observations | 13 |
| Minimum | 6 |
| Maximum | 101 |
| Mean of Raw Data | 19.47 |
| Standard Deviation of Raw Data | 23.62 |
| Khat | 1.637 |
| Theta hat | 11.9 |
| Kstar | 1.354 |
| Theta star | 14.38 |
| Mean of Log Transformed Data | 2.633 |
| Standard Deviation of Log Transformed Data | 0.732 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.718 |
| Shapiro Wilk Test Statistic | 0.543 |
| Shapiro Wilk Critical (0.05) Value | 0.881 |
| Approximate Shapiro Wilk P Value | 2.0279E-6 |
| Lilliefors Test Statistic | 0.284 |
| Lilliefors Critical (0.05) Value | 0.22 |

Data not Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.872 |
| A-D Test Statistic | 1.092 |
| A-D Critical (0.05) Value | 0.752 |
| K-S Test Statistic | 0.195 |
| K-S Critical(0.05) Value | 0.225 |

Data follow Appr. Gamma Distribution at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.935 |
| Shapiro Wilk Test Statistic | 0.884 |
| Shapiro Wilk Critical (0.05) Value | 0.881 |
| Approximate Shapiro Wilk P Value | 0.0501 |
| Lilliefors Test Statistic | 0.137 |

| | |
|---|---|
| Lilliefors Critical (0.05) Value | 0.22 |

Data appear Lognormal at (0.05) Significance Level

SR03 Confirmatory

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 30 |
| Number of Distinct Observations | 26 |
| Minimum | 13 |
| Maximum | 106 |
| Mean of Raw Data | 61.03 |
| Standard Deviation of Raw Data | 21.75 |
| Khat | 5.972 |
| Theta hat | 10.22 |
| Kstar | 5.397 |
| Theta star | 11.31 |
| Mean of Log Transformed Data | 4.025 |
| Standard Deviation of Log Transformed Data | 0.471 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.989 |
| Shapiro Wilk Test Statistic | 0.976 |
| Shapiro Wilk Critical (0.05) Value | 0.927 |
| Approximate Shapiro Wilk P Value | 0.743 |
| Lilliefors Test Statistic | 0.108 |
| Lilliefors Critical (0.05) Value | 0.159 |

Data appear Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.957 |
| A-D Test Statistic | 0.863 |
| A-D Critical (0.05) Value | 0.746 |
| K-S Test Statistic | 0.143 |
| K-S Critical(0.05) Value | 0.16 |

Data follow Appr. Gamma Distribution at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.921 |
| Shapiro Wilk Test Statistic | 0.856 |
| Shapiro Wilk Critical (0.05) Value | 0.927 |
| Approximate Shapiro Wilk P Value | 6.4330E-4 |
| Lilliefors Test Statistic | 0.158 |
| Lilliefors Critical (0.05) Value | 0.159 |

Data appear Approximate_Lognormal at (0.05) Significance Level

## Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

**User Selected Options**

| | |
|---|---|
| Date/Time of Computation | ProUCL 5.1 1/2/2020 9:42:08 AM |
| From File | WorkSheet.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**SR08 Background**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 19 |
| Number of Distinct Observations | 15 |
| Minimum | 7 |
| Maximum | 489 |
| Mean of Raw Data | 124.4 |
| Standard Deviation of Raw Data | 158.3 |
| Khat | 0.667 |
| Theta hat | 186.4 |
| Kstar | 0.597 |
| Theta star | 208.4 |
| Mean of Log Transformed Data | 3.911 |
| Standard Deviation of Log Transformed Data | 1.475 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.867 |
| Shapiro Wilk Test Statistic | 0.745 |
| Shapiro Wilk Critical (0.05) Value | 0.901 |
| Approximate Shapiro Wilk P Value | 9.7415E-5 |
| Lilliefors Test Statistic | 0.24 |
| Lilliefors Critical (0.05) Value | 0.197 |

**Data not Normal at (0.05) Significance Level**

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.962 |
| A-D Test Statistic | 0.833 |
| A-D Critical (0.05) Value | 0.787 |
| K-S Test Statistic | 0.227 |
| K-S Critical(0.05) Value | 0.207 |

**Data not Gamma Distributed at (0.05) Significance Level**

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.965 |
| Shapiro Wilk Test Statistic | 0.91 |
| Shapiro Wilk Critical (0.05) Value | 0.901 |
| Approximate Shapiro Wilk P Value | 0.0935 |
| Lilliefors Test Statistic | 0.195 |

| | |
|---|---|
| Lilliefors Critical (0.05) Value | 0.197 |

Data appear Lognormal at (0.05) Significance Level

SR08 Confirmatory

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 23 |
| Number of Distinct Observations | 21 |
| Minimum | 4.5 |
| Maximum | 94 |
| Mean of Raw Data | 34.07 |
| Standard Deviation of Raw Data | 25.35 |
| Khat | 1.726 |
| Theta hat | 19.73 |
| Kstar | 1.53 |
| Theta star | 22.26 |
| Mean of Log Transformed Data | 3.211 |
| Standard Deviation of Log Transformed Data | 0.865 |

**Normal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.95 |
| Shapiro Wilk Test Statistic | 0.895 |
| Shapiro Wilk Critical (0.05) Value | 0.914 |
| Approximate Shapiro Wilk P Value | 0.0184 |
| Lilliefors Test Statistic | 0.228 |
| Lilliefors Critical (0.05) Value | 0.18 |

Data not Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.97 |
| A-D Test Statistic | 0.631 |
| A-D Critical (0.05) Value | 0.758 |
| K-S Test Statistic | 0.187 |
| K-S Critical(0.05) Value | 0.184 |

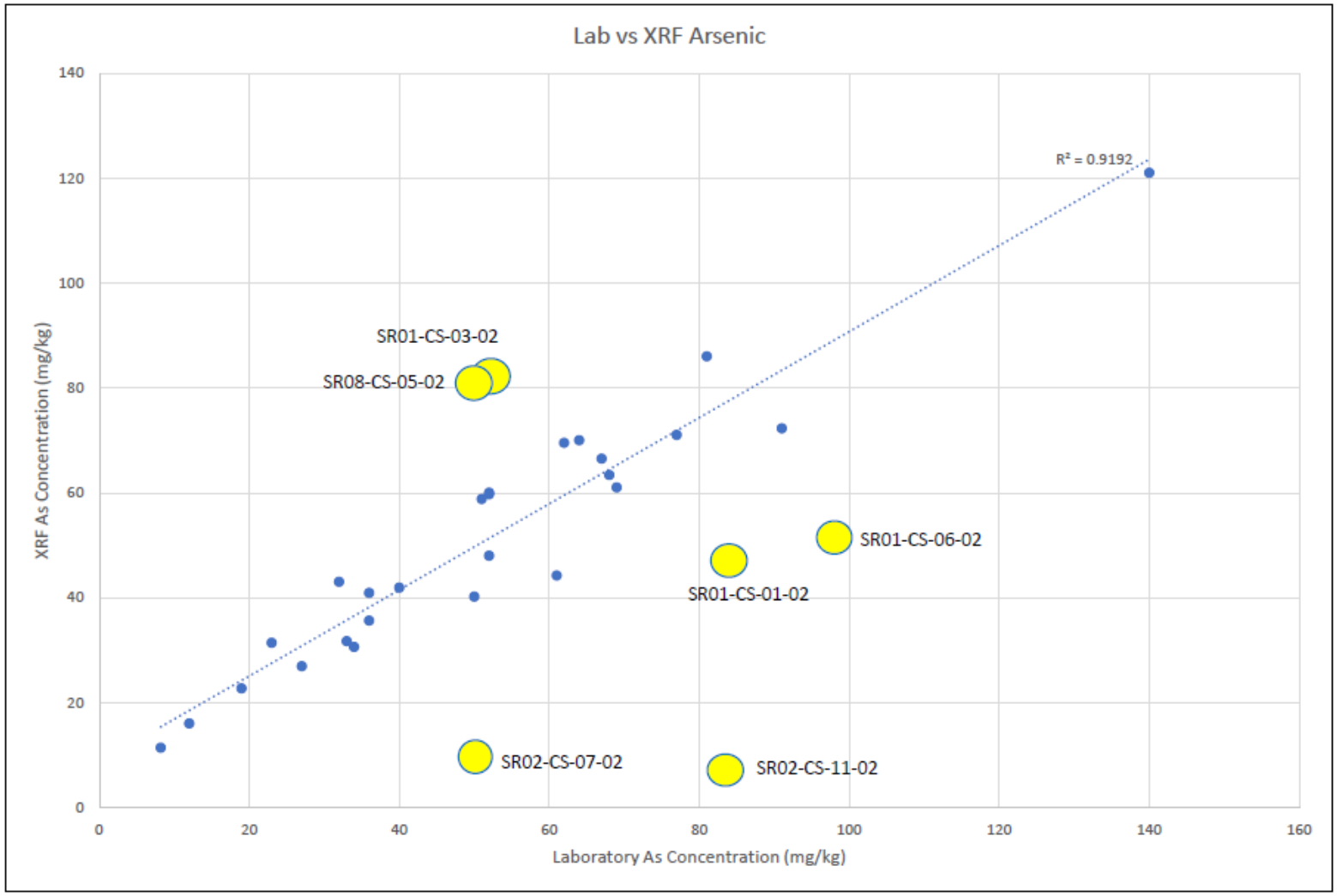
Data follow Appr. Gamma Distribution at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.975 |
| Shapiro Wilk Test Statistic | 0.941 |
| Shapiro Wilk Critical (0.05) Value | 0.914 |
| Approximate Shapiro Wilk P Value | 0.193 |
| Lilliefors Test Statistic | 0.147 |
| Lilliefors Critical (0.05) Value | 0.18 |

Data appear Lognormal at (0.05) Significance Level

## H4. Data Distribution Chart




Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

**Data Distribution Chart**

Saddle Rock Interim Remedial Action Project
Wenatchee, Washington

GeoEngineers

**Appendix H4**

GeoEngineers