Groundwater Monitoring Report
Fourth Quarter 2013

Roby's Station
Buena, Washington

for
Washington State Department of Ecology

June 18, 2014

GeoEngineers
Earth Science + Technology

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File No. 0504-060-02

June 18, 2014

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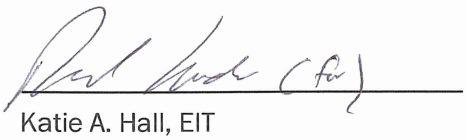

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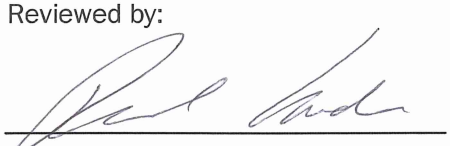

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1.0 INTRODUCTION

This report describes groundwater monitoring activities conducted in December 2013 at the Roby's Station site located at the intersection of Buena Road and Burr Street in Buena, Washington (herein referred to as "site"). The site is located approximately as shown in the attached Vicinity Map, Figure 1.

Environmental activities at the site currently are managed by the Washington State Department of Ecology (Ecology). This report describes field activities, observations and chemical analytical results associated with groundwater samples collected at the site, and provides recommendations for further remediation and monitoring. The purpose of the monitoring activities described herein was to evaluate shallow groundwater conditions including the extent of remnant contamination, following completion of interim remedial action cleanup activities conducted at the site in November 2012.

2.0 SITE DESCRIPTION AND BACKGROUND

2.1. Property Description

The site is located on the west corner of the intersection of Buena Road and Burr Street in Buena, Washington. The site is currently a vacant lot and is generally level with a slight depression near the southern property boundary. Buena Road and Burr Street bound the property to the north and east, respectively. The adjacent property to the south is occupied by a fire station. The adjacent property to the west is occupied by the Buena post office. The general location of the site and the general site layout is depicted on Site Plan, Figure 2. Note that the most recent aerial imagery available for use is from early 2011, before demolition of the service station at the site.

2.2. Site History

Historically, Roby's site operated as a service station, though the exact dates of operation are unknown. Site features included the gas station structure, fueling USTs, associated product piping and dispensers located near the north portions of the property. A mobile home also was located south of the service station. Other site features located near the service station included a domestic production well, an approximately 300-gallon waste-oil UST, a drywell, and a hydraulic lift (located inside the service station).

Petroleum contamination was identified in 1993 at several sites within the town of Buena, including the Roby's site during the installation of underground sewer lines. Ecology conducted site assessment activities in Buena between 1997 and 1999, including installing 12 monitoring wells (MW-1 through MW-12) throughout the town. Four of these monitoring wells (MW-5 through MW-8) are still located near Roby's site.

Former fuel USTs were reportedly closed in place in 1996 at the Roby's site. Petroleum contaminated soil was again identified on Roby's site during the removal of five USTs and associated product lines and fuel dispensers in 2001. Results of chemical analytical testing indicated soil located near the USTs was contaminated with gasoline-range petroleum hydrocarbons (GRPH), diesel-range petroleum hydrocarbons (DRPH), and benzene, toluene, ethylbenzene and xylene (BTEX) compounds greater than Model Toxics Control Act (MTCA) Method A soil cleanup levels for unrestricted land use. The contaminated soil was placed back within the excavation following removal of the USTs.

GeoEngineers conducted characterization activities at the site in 2010, including installing a groundwater monitoring well (MW-15) near Roby's property.

The gasoline station structure on Roby's property was demolished in October 2011. Removal of concrete floor slabs during demolition revealed stained soil. The domestic water well serving the property was abandoned during demolition and a drywell and hydraulic lift also were removed as part of the building demolition activities. Ecology previously removed the contents of the drywell; however, the drywell refilled with apparent petroleum-contaminated water and debris after each cleaning attempt. During the building demolition activities, the contents of the waste oil tank were removed from the site and disposed. Chemical analysis of the waste oil tank contents by Ecology indicated the tank contained polychlorinated biphenyls (PCBs) and leachable lead. Qualitative field screening conducted by Ecology also indicated the waste oil tank contents contained chlorinated compounds. The site has remained vacant since demolition. The County auctioned the property to a new owner in 2013.

GeoEngineers conducted additional site investigation activities in November 2011, including groundwater sampling and advancing 18 direct-push soil borings on Roby's site. The supplemental investigation was conducted to assess the area surrounding the waste oil tank and former structure footprint, further delineate the extent of soil contamination near the former USTs and fuel dispenser locations, and investigate areas downgradient of the source area on Roby's property to define the extent of the petroleum contaminated plume. A total of 22 soil samples were collected and submitted for analytical testing from this investigation. GRPH, DRPH, ORPH, benzene, ethylbenzene, naphthalene and lead were detected in soil samples at concentrations greater than their MTCA Method A unrestricted land use cleanup levels.

Remedial interim action activities were conducted at the Roby's site and neighboring Monte De Sion Church site (located east of Roby's, southeast of the intersection of Buena Road and Burr Street) between about November 1 through November 16, 2012. Three Kings Environmental performed remedial excavation work. The remedial action was conducted to reduce the potential risk to human health and environment caused by contaminated vadose-zone soil at both the Roby's and Church sites and to initiate treatment of saturated soil and groundwater at Roby's site by application of an oxygen releasing compound to enhance biological degradation of contaminants. Approximately 2,817.31 tons of debris and material containing contaminants of concern (COCs) were excavated from the Roby's and Church sites and disposed off-site at Anderson Landfill in Yakima, Washington. This includes approximately 2,568.15 tons of soil and 122.51 tons of debris from Roby's site and 126.65 tons of soil from the Church site. Approximately 2,500 pounds of proprietary oxidant compound supplied by BioRemediation Specialists, LLC was applied to the open remedial excavation at Roby's before placement of imported backfill material. At the time of oxidant application, the bottom of the remedial excavation generally was about 4 feet below surrounding site grades, and was at least several inches below groundwater.

Representative confirmation soil sample analytical results from Roby's site indicate soil with COC concentrations less than MTCA Method A cleanup levels was reached on all sides of the excavation except the southeast side, where the extent of the excavation was limited by trees and site utilities. The remedial excavation was backfilled with imported structural fill, and the site was graded with a slight slope towards the center of the site to limit runoff. Oxidant injection galleries were constructed

approximately perpendicular to the estimated groundwater flow direction to allow future oxidant application to further remediate groundwater and soil within the smear zone.

Confirmation soil sample analytical results from the Church site indicate soil with COC concentrations less than MTCA Method A cleanup levels was reached on all sides and base of the excavation except the west side, where the extent of the excavation was limited by the church building and site utilities. The remedial excavation was backfilled with imported structural fill and the site was graded to match the approximate site conditions before excavation began.

2.3. Geologic and Soil Conditions

The Washington Department of Natural Resources, "Geologic Map of the East Half of the Toppenish 1:100,000 Quadrangle, Washington" indicates that three geologic units are mapped near the site including: Quaternary Age Alluvium (Qa), Quaternary Age Terrace deposits (Qt) and Quaternary Age Outburst flood deposits, silt and sand (Qfs). Alluvium and Terrace deposits consist of silt, sand and gravel, deposited directly by the Yakima River. Alluvium is mapped in valley bottoms, while Terrace deposits are mapped along the margins of the valley bottom, extending about 15 to 30 feet above the current Yakima River flood plain. Outburst flood deposits consist of rhythmically bedded and graded slackwater (low-energy) deposits of silt, minor sand and gravel, deposited during outburst floods from glacial Lake Missoula.

Review of available water well reports on the Washington State Department of Ecology on-line database indicates that deposits of gravel, sand, silt and clay with cobbles extend to depths of at least 40 to 90 feet below ground surface (bgs) near the site. Several well reports indicate that sandstone is underlies overburden soil deposits at depths in the of about 50 to 90 feet bgs.

Soil boring logs from the installation of monitoring wells MW-1 through MW-25 located near and on the site indicate that gravel with sand and silt extend from ground surface to approximately 15 feet bgs. Some interbedded silt and/or clay was also observed in the borings.

2.4. Groundwater Conditions

Based on review of available water well reports and our explorations, a shallow aquifer is present below the site. Consistent with hydraulic conditions within the Yakima River Basin Aquifer System, the overall direction of groundwater flow near the site appears to be south-southeast. However, local variations in groundwater gradients and flow direction, presumably as a result of local recharge/discharge conditions, and possibly due to artificial recharge, also have been observed. Depth to the shallow aquifer beneath the site has ranged from about 2 to 7 feet below ground surface. Based on visual observations during remedial excavation activities, and groundwater elevation data, it appears that an existing irrigation pipe could be contributing to artificial recharge within the adjacent remedial excavation backfill.

3.0 SCOPE OF SERVICES

The quarterly groundwater monitoring event was performed on December 17 and 18, 2013, during which the following scope of services was performed by GeoEngineers:

- Measured headspace vapor concentrations and depth to water in site groundwater monitoring wells (MW-5 through MW-7, MW-9, MW-15, and MW-22 through MW-25). MW-8 could not be located during this event.
- Collected groundwater samples from monitoring wells MW-5 through MW-7, MW-9, and MW-22 through MW-25 using low-flow/low-stress sampling techniques. During well purging, water quality parameters (pH, conductivity, temperature, dissolved oxygen [DO] and reduction-oxidation potential [ORP]) were monitored and recorded.
- Submitted groundwater samples to TestAmerica Laboratories, Inc. (TestAmerica) in Spokane Valley, Washington for chemical analysis. Samples were analyzed for:
    - GRPH using NWTPH-Gx;
    - DRPH and ORPH using method NWTPH-Dx;
    - Volatile organic compounds (VOCs) using Environmental Protection Agency (EPA) Method 8260C;
    - Arsenic, chromium, and lead using EPA 200 Series methods;
    - Dissolved iron and manganese using EPA Method 200.7;
    - Total alkalinity using Method SM 2320B; and
    - Nitrate and Sulfate using EPA Method 300.0.

4.0 FIELD ACTIVITIES

4.1. Groundwater Elevations and Monitoring Well Headspace Vapor

Depths to groundwater in site monitoring wells were measured relative to the top of the north side of the well casing. MW-8 could not be located during this event, so depth to groundwater and headspace vapor information were not collected from that well. Depth to groundwater measurements were used to calculate groundwater elevations and interpreted groundwater flow direction for the December 2013 event.

Depth to groundwater in site monitoring wells was measured on December 17 and 18, 2013 and ranged from 2.62 feet in MW-24 to 3.92 feet in MW-7. Groundwater elevations ranged from about 787.14 feet in MW-9 to 791.19 feet in MW-22, and decreased, on average 0.35 feet since the May 2013 sampling event. Groundwater elevation contours, presented in Groundwater Elevation and Interpreted Flow Direction, December 17 and 18, 2013, Figure 3, were estimated using the computer program Surfer and suggest groundwater flow in the unconfined aquifer beneath the site during this event generally is toward the south-southeast, with localized flow to the northeast near MW-7 and MW-15, and to the northwest in the northern part of the site. The groundwater elevation distribution suggests a complex flow regime exists at the site, characterized by a groundwater mound located generally within the area of the remedial excavation. The calculated elevation contours also suggest a groundwater depression is located near monitoring well MW-7. These complexities suggest that the groundwater elevation distribution at the site is influenced by local discharge and recharge.

During initial remedial excavation activities at Roby's in November 2012, water was observed to be flowing into the north side of the excavation at an elevation above the groundwater table. Further excavation revealed a concrete irrigation pipe, oriented parallel to Buena Road. At the time of excavation

activities, the pipe was leaking and discharging water into the excavation. Yakima County was notified and county personnel repaired observable leaks within the exposed portion of the pipe. However, it is possible that other unknown leaks could transmit water along the pipe backfill, which could then collect within the more permeable gravel backfill within the remedial excavation, creating a groundwater mound within the remedial excavation. While a uniform gradient is presented between monitoring well MW-24 and MW-7 in Figure 3, it is possible there is a steeper hydraulic gradient at the boundary of the remedial excavation, and that the hydraulic gradient between the wells within undisturbed portions of the shallow aquifer more closely resembles natural conditions.

Evidence also suggests that the groundwater at well MW-15 could be mounded by artificial recharge. Results of a video inspection of the sewer line by Yakima County indicate that drilling activities during the installation of well MW-15 could have damaged the line. Ecology and Yakima County currently are developing plans to decommission well MW-15 and repair the sewer line.

Monitoring well headspace vapors were measured during the December 2013 event using a photoionization detector (PID). Headspace measurements were collected by inserting the PID probe into the well casing immediately after removing the well cap and recording the maximum observed concentration. Headspace vapor concentrations were measured at 8.0 parts per million (ppm) in MW-15, and 0.0 ppm in the remaining site wells.

Groundwater depths and elevations are presented in Summary of Groundwater Level Measurements, Table 1. Groundwater elevation data, approximate groundwater elevation contours, and interpreted flow direction for the December 2013 monitoring event are presented in Figure 3. Field methods are described in Appendix A.

4.2. Groundwater Quality Monitoring

Monitoring wells were purged and sampled during the December 2013 event using standard low-flow sampling methodology. A peristaltic pump and dedicated tubing were used to purge and sample each well. Groundwater water quality parameters generally were measured at 3-minute intervals during well purging. Groundwater samples were collected when each water quality parameter had stabilized in conformance with the criteria presented in Appendix A. Monitoring wells MW-5 through MW-7, MW-9, and MW-22 through MW-25 were sampled during the December 2013 event. Groundwater samples were submitted to TestAmerica for analysis using the methods described in "Section 3.0," chemical analytical results are discussed in "Section 5.0."

Purge water generated during groundwater sampling was drummed, labeled and stored on the east side of the site pending analytical results for profiling and disposal.

5.0 CHEMICAL ANALYTICAL RESULTS

Groundwater samples were collected on December 17 and 18, 2013 from monitoring wells MW-5 through MW-7, MW-9, and MW-22 through MW-25. Groundwater samples were submitted to TestAmerica for the chemical analyses described in "Section 3.0." TestAmerica's laboratory report is included in Appendix B. Chemical analytical results are tabulated and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results – Groundwater, Table 2.

Groundwater analytical results for the December 2013 monitoring event are summarized by the following:

5.1. Chemical Analytical Results

- DRPH and ORPH were not detected in samples collected from any site monitoring wells.
- GRPH was detected in the sample from MW-7 at a concentration less than the MTCA Method A cleanup level. GRPH was not detected in groundwater samples collected from the site monitoring wells.
- VOCs were not detected in the groundwater samples collected from MW-5, MW-6, MW-9, MW-22, MW-23 and MW-25.
- Benzene was detected in the duplicate sample (MW-24) at a concentration less than the MTCA Method A cleanup level; and ethylbenzene was detected in the sample from MW-24 and the duplicate sample at concentrations less than the MTCA Method A cleanup level.
- 1,2,4-trimethylbenzene was detected in the sample from MW-24 and the duplicate sample at concentrations of 5.27 and 5.59 micrograms per liter (µg/L), respectively. This VOC does not have an established MTCA Method A cleanup level.
- Total arsenic was detected in the samples from MW-5, MW-6, MW-7, MW-22 and MW-23 at concentrations less than the MTCA Method A cleanup level.
- Total lead was detected in the sample from MW-25 at a concentration less than the MTCA Method A cleanup level.
- Total chromium was not detected in the groundwater samples.

5.2. Natural Attenuation Parameters

In addition to the contaminants of concern, groundwater samples from the December 2013 event were analyzed for natural attenuation parameters. Concentrations of the following natural attenuation parameters were analyzed in the laboratory by TestAmerica for: nitrate, sulfate and total alkalinity. Laboratory results are provided in Table 2.

DO, temperature, specific conductivity, pH and ORP were measured in the field using a calibrated Troll 9500 multi-parameter meter equipped with a flow-through cell. Field measurement results are provided in Summary of Field-Measured Natural Attenuation Parameters, Table 3. Reported field parameters reflect stabilized conditions at the conclusion of well purging during low-flow sampling.

Field and laboratory analytical results for natural attenuation parameters are summarized by the following:

- DO ranged from 0.04 milligrams per liter (mg/L) in MW-23 to 0.85 mg/L in MW-22.
- Temperature ranged from 6.43 degrees Celsius in MW-22 to 14.02 degrees Celsius in MW-7. Variations in temperature could be attributed to depth to groundwater at each of the well locations, and associated heat transfer between ambient air and subsurface soil. In general, groundwater temperatures increased with increasing depth to top of groundwater below ground surface. Additionally, the lowest groundwater temperatures were measured in wells MW-22 and MW-24. These wells are located within the remedial excavation, which was backfilled with permeable gravel.

This material likely has lower thermal resistance/insulation properties than the natural soil deposits at the site.

- Specific conductivity ranged from 0.2979 milliSeimens per centimeter (mS/cm) in MW-24 to 0.5351 mS/cm in MW-23.
- pH ranged from 6.85 in MW-23 to 7.15 in MW-6.
- ORP ranged from -130 millivolts (mV) in MW-15 to 98 mV in MW-22.
- Nitrate-Nitrogen was detected in monitoring wells MW-6, MW-7, MW-9, MW-22, MW-23, MW-24 and the duplicate sample at concentrations ranging from 0.200 to 1.45 mg/L.
- Dissolved iron was detected in the samples from MW-5, MW-7 and MW-23 at concentrations of 0.101, 0.106, and 0.125 mg/L, respectively. This metal does not have an established MTCA Method A cleanup level.
- Dissolved manganese was detected in the samples from MW-5, MW-6, MW-7, MW-9, MW-22, MW-23, MW-24, MW-25 and the duplicate sample at concentrations of 0.594, 1.33, 1.21, 0.354, 0.256, 0.404, 0.238, 1.39 and 0.241 mg/L, respectively. This metal does not have an established MTCA Method A cleanup level.
- Sulfate was detected in monitoring wells MW-5 through MW-7, MW-9, MW-22 through MW-25, and the duplicate sample at concentrations ranging from 6.10 to 62.8 mg/L.
- Total alkalinity was detected in monitoring wells MW-5 through MW-7, MW-9, MW-22 through MW-25, and the duplicate sample at concentrations ranging from 180 to 335 mg/L.
- Field-measured ferrous iron (Fe^{+2}) was detected at concentrations in the range of 0 to 2.25 mg/L.

6.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. Quarterly Groundwater Assessment

The quarterly groundwater monitoring event was conducted at the site on December 17 and 18, 2013. Depths to groundwater during the December 2013 event ranged from 2.62 feet in MW-24 to 3.92 feet in MW-7 and groundwater elevations ranged from about 787.14 feet in MW-9 to 791.19 feet in MW-22. Relative to the May 2013 event, groundwater decreased on average about 0.35 feet. The observed decrease in site groundwater elevations is interpreted to reflect a decrease in precipitation typical of late summer through early winter in south central Washington, and to the end of the irrigation season.

6.2. Chemical Analytical Results and Contaminant Distribution

During the December 2013 quarterly groundwater monitoring event:

- GRPH was detected in the sample from MW-7 at a concentration less than the MTCA Method A cleanup level.
- Benzene was detected in the duplicate sample at a concentration less than the MTCA Method A cleanup level.
- Ethylbenzene was detected in the sample from MW-24 and the duplicate sample at concentrations less than the MTCA Method A cleanup level.

- Isopropylbenzene was detected in the sample from MW-7; this VOC does not have an established MTCA Method A cleanup level.
- 1,2,4-Trimethylbenzene was detected in the sample from MW-24 and the duplicate sample; this VOC does not have an established MTCA Method A cleanup level.
- Total arsenic was detected in the samples from MW-5, MW-6, MW-7, MW-22 and MW-23 at concentrations less than the MTCA Method A cleanup level.
- Total lead was detected in the sample from MW-25 at a concentration less than the MTCA Method A cleanup level.
- Other contaminants of concern either were not detected or were detected at concentrations less than MTCA Method A cleanup levels in the remaining groundwater samples.
- The reporting limits for methylene chloride and 1,2-dibromoethane (EDB) were greater than the applicable MTCA Method A cleanup levels. These analytes have not been detected during previous sampling events.

6.3. Natural Attenuation Processes

A qualitative assessment of the potential for biodegradation of contaminants at a site can be completed by evaluating certain geochemical parameters of groundwater samples collected from monitoring wells located within a source area, and comparing those results with the results of similar analyses from groundwater samples collected from upgradient and downgradient wells. At this site, upgradient wells (relative to previously identified petroleum contamination on Roby's property and the extent of the remedial excavation) include MW-5, MW-6 and MW-8. However, as noted previously, groundwater monitoring events following remedial excavation work suggest that a groundwater mound is present within the limits of the remedial excavation, and that wells MW-5, MW-6 and MW-8 currently are slightly downgradient of the source area. Monitoring wells located within the source area include wells MW-22 and MW-24. Downgradient monitoring wells include wells MW-7 and MW-23. Well MW-7 is located approximately 75 feet south of the south portions of the remedial excavation. Well MW-23 is located adjacent to the west edge of the remedial excavation. Because of the presence of contaminants detected in monitoring well MW-15 which have not been detected in other site wells, the results of groundwater elevation measurements and results of other laboratory analyses, well MW-15 was not considered as a representative downgradient well.

The natural attenuation data available at this date suggests that most of the area underlying the town of Buena is in a reducing (anaerobic) zone. This conclusion is based on the low DO and negative ORP values observed in wells located throughout the town.

A summary of selected natural attenuation parameters measured during the December 2013 monitoring event are presented in Table 4.

TABLE 4. NATURAL ATTENUATION SUMMARY - DECEMBER 2013 MONITORING EVENT

Well Location	Well Number	Field-Measured ORP (mV)	Calculated ORP[1] (mV)	DO (mg/L)	Nitrates (mg/L)	Dissolved Manganese (mg/L)	Dissolved Iron (mg/L)	Sulfates (mg/L)	Field-Measured Fe^{+2} (mg/L)
Upgradient	MW-5	-130	75	0.20	0.330	0.594	0.101	6.10	2.25
	MW-6	-36	170	0.08	1.45	1.33	ND	39.0	0
	MW-8	NM	NM	NM	NM	NM	NM	NM	NM
Source Area	MW-22	98	308	0.85	0.460	0.256	ND	27.8	0
	MW-24	-51	158	0.08	0.580	0.238	ND	23.8	0
Downgradient	MW-7	-99	105	0.05	0.200	1.21	0.0106	44.5	2.1
	MW-23	-101	103	0.04	1.08	0.404	0.125	19.5	1.0

Notes:

[1]ORP calculated using the following equation provided by the manufacturer: $ORP_{SHE} = ORP_{observed} + \{215.81 - T_C * [0.77942 + T_C * 0.001934]\}$, where ORP_{SHE} is the sample potential relative to the standard hydrogen electrode, $ORP_{observed}$ is the sample potential relative to the In-Situ reference electrode, and T_C is the sample temperature in °C.

ND = non-detected

NM = not measured

Results from field measurements during the February, May and December 2013 events indicate that application of oxidant to the remedial excavation at Roby's in November 2012 generally increased ORP, DO and nitrates and decreased manganese concentrations in groundwater relative to those measured in upgradient and downgradient wells. DO levels measured at wells MW-22 and MW-24 generally have decreased after following application of the oxidant. However, they are still generally greater than those measured in upgradient and downgradient wells. These results indicate that there is residual oxygen available within the remedial excavation for at least a limited amount of time for aerobic biodegradation of petroleum contaminants in groundwater within the source area at Roby's.

GRPH was measured in the groundwater from well MW-7 for the first time since application of oxidant. DO concentration increased slightly in MW-7 during this monitoring event, and nitrate concentrations have increased and dissolved manganese concentrations have decreased in MW-7 during each monitoring event since application of oxidant. ORP and nitrate concentrations also has increased in MW-23 since application of the oxidant, and DO was measured in the groundwater sample collected during this monitoring event for the first time.

Results of analytical testing for iron and manganese during the November 2012 and May 2013 monitoring events and previous monitoring events completed by GeoEngineers and Ecology in 2010 and 2011 indicate that concentrations of manganese in groundwater samples collected from downgradient well MW-7 were higher than manganese concentrations collected in groundwater samples from upgradient wells MW-5, MW-6 and MW-8. Results of the December 2013 monitoring event indicate that the concentration of manganese in the groundwater sample from MW-7 is similar to the concentration in the groundwater sample from MW-6 and greater than the concentration in the groundwater sample from MW-5. A pattern with regard to concentrations of dissolved iron relative to downgradient and upgradient wells was not present. Ferrous iron concentrations were generally lower within the source area than within upgradient or downgradient wells.

These results suggest that the effects of the oxidant have reached MW-7 and MW-23. Sulfate concentrations suggest that anaerobic biodegradation mechanisms may be utilizing sulfates, including near well MW-7, where sulfate concentrations have decreased in during each post-oxidant application. These results also suggest that prior to application of oxidant within the source area, anaerobic biodegradation mechanisms had progressed to utilization of manganese as an electron receptor, and that the effects of the oxidant injection may be decreasing over time.

6.4. Interpretation

Results of the groundwater samples indicate that petroleum contamination remains at the Roby's site. However, results from the December 2013 monitoring event continue to suggest that remedial activities have reduced the concentration of petroleum contaminants in groundwater within the area of the remedial excavation to below cleanup levels.

Results of soil and groundwater samples collected from well MW-25, located downgradient of the remedial excavation at the adjacent Church property, indicate that petroleum-contaminated groundwater is not present at the Church property, downgradient of the remedial excavation completed on the Church property.

Data collected from natural attenuation field measurements and analysis indicate the shallow aquifer beneath the site is in a reducing (anaerobic) zone. The introduction of oxidants to the remedial excavation results in aerobic conditions within the backfill which rapidly revert back to anaerobic conditions downgradient of the remedial excavation.

6.5. Recommendations

We recommend that additional groundwater sampling events be completed to evaluate the effectiveness of the oxidant injection and the "rebound," if any, of contaminant concentrations in groundwater following application of oxidant to the remedial excavation at Roby's. We also recommend continued analyses of natural attenuation parameters.

7.0 LIMITATIONS

We have prepared this report for the exclusive use of Ecology and their authorized agents.

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. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty or other conditions, express or implied, should be understood.

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

Please refer to "Report Limitations and Guidelines for Use," Appendix C for additional information pertaining to use of this report.

8.0 REFERENCES

GeoEngineers, Inc., "Work Plan, Interim Action (Data Gap Investigation)," Roby's Project, Buena, Washington. GEI File No. 0504-060-02. November 23, 2011.

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TABLES

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Table 1

Summary of Groundwater Level Measurements

Roby's Station

Buena, Washington

Well I.D.	Top of Casing Elevation[1] (feet)	Date Measured	Monitoring Well Headspace[2] (ppm)	Depth to Groundwater[3] (feet)	Groundwater Elevation[1] (feet)	Change in Groundwater Elevation (feet)[4]
MW-5	794.09	11/02/12	0.0	6.01	788.08	--
		02/25/13	0.0	3.44	790.65	2.57
		05/08/13	52.9	2.82	791.27	0.62
		12/17/13	0.0	3.22	790.87	-0.40
MW-6	794.38	11/02/12	0.0	6.33	788.05	--
		02/25/13	0.0	3.70	790.68	2.63
		05/08/13	210	3.10	791.28	0.60
		12/17/13	0.0	3.50	790.88	-0.40
MW-7	793.70	11/02/12	0.0	6.71	786.99	--
		02/25/13	0.0	4.17	789.53	2.54
		05/08/13	58.1	3.58	790.12	0.59
		12/17/13	0.0	3.92	789.78	-0.34
MW-8	794.26	11/02/12	0.0	6.26	788.00	--
		02/25/13	0.0	3.68	790.58	2.58
		05/08/13[5]	NA	NA	NA	NA
		12/17/13[5]	NA	NA	NA	NA
MW-9	789.89	02/25/13	0.0	3.00	786.89	--
		05/08/13	8.9	2.60	787.29	0.40
		12/17/13	NA	2.75	787.14	-0.15
MW-15	792.86	11/02/12	0.0	5.70	787.16	--
		02/25/13	13.7	2.90	789.96	2.80
		05/08/13	15.3	2.50	790.36	0.40
		12/18/13	8.0	2.76	790.10	-0.26
MW-22	794.19	02/25/13	19.8	3.28	790.91	--
		05/08/13	3.4	2.48	791.71	0.80
		12/17/13	0.00	3.00	791.19	-0.52

Well I.D.	Top of Casing Elevation[1] (feet)	Date Measured	Monitoring Well Headspace[2] (ppm)	Depth to Groundwater[3] (feet)	Groundwater Elevation[1] (feet)	Change in Groundwater Elevation (feet)[4]
MW-23	794.69	02/25/13	0.0	4.30	790.39	--
		05/08/13	2.2	3.51	791.18	0.79
		12/17/13	0.0	3.90	790.79	-0.39
MW-24	793.79	02/25/13	0.0	2.90	790.89	--
		05/08/13	1.3	2.10	791.69	0.80
		12/17/13	0.0	2.62	791.17	-0.52
MW-25	792.39	02/25/13	0.0	3.01	789.38	--
		05/08/13	1.8	2.60	789.79	0.41
		12/18/13	0.0	2.78	789.61	-0.18

Notes:

[1]Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88). Wells were surveyed by Thomas Dean and Hoskins (TD&H) in February 2013.

[2]Well headspace measurements were obtained using a photoionization detector immediately upon removal of the well's compression cap.

[3]Depth to water measurements obtained from north side of top of PVC well casing.

[4]Change in groundwater elevation since previous monitoring event.

[5]Unable to find MW-8. Well buried by crushed rock base course.

ppm = parts per million; NA = not accessible

Table 2

Summary of Chemical Analytical Results - Groundwater[1]

Roby's Station
Buena, Washington

			Well Name	MW-5				MW-6				MW-7			
				Sample Name and Sample Date											
Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	MW-5-110212 11/02/12	MW-05-022513 02/25/13	MW-5-050713 05/07/13	MW-5-121713 12/17/13	MW-6-110212 11/02/12	MW-06-022513 02/25/13	MW-6-050713 05/07/13	MW-6-121713 12/17/13	MW-7-110212 11/02/12	MW-07-022513 02/25/13	MW-7-050713 05/07/13	MW-7-121713 12/17/13
TPH	Gasoline-range hydrocarbons[3]	µg/L	1,000/800	ND	ND	ND	ND	ND	ND	**251**	ND	ND	ND	ND	**235**
	Diesel-range hydrocarbons[4]	mg/L	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Diesel-range hydrocarbons[5]	mg/L	0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Heavy Oil-Range Hydrocarbons[4]	mg/L	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Heavy Oil-Range Hydrocarbons[5]	mg/L	0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Metals[6]	Arsenic	mg/L	5	ND	NT	NT	**0.0041**	ND	NT	NT	**0.0010**	ND	NT	NT	**0.0013**
	Chromium	mg/L	50	ND	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
	Iron	mg/L	NE	**3.71**	NT	**0.0889**	**0.101**	ND	NT	ND	ND	**3.90**	NT	**0.0837**	**0.106**
	Lead	mg/L	15	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND
	Manganese	mg/L	NE	**0.770**	NT	**0.568**	**0.594**	**1.34**	NT	**1.20**	**1.33**	**2.04**	NT	**1.43**	**1.21**
VOC[7]	Dichlorodifluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Vinyl chloride	µg/L	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichlolofluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon disulfide	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methylene chloride	µg/L	5	ND	ND	ND[13]	ND	ND	ND	ND[13]	ND	ND	ND	ND[13]	ND
	Acetone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methyl tert-butyl ether (MTBE)	µg/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2-Trichlorotrifluoroethane	µg/L	NE	NT	NT	NT	ND	NT	NT	NT	ND	NT	NT	NT	ND
	1,1-Dichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2,2-Dichloropropane	µg/L	NE	ND	ND	ND[12]	ND	ND	ND	ND[12]	ND	ND	ND	ND[12]	ND
	Bromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon tetrachloride	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1-Trichloroethane	µg/L	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Butanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Hexane	µg/L	NE	NT	NT	NT	ND	NT	NT	NT	ND	NT	NT	NT	ND
	1,1-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzene	µg/L	5	ND	ND	ND	ND	ND	ND	**4.27**	ND	ND	**0.380**	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date											
				MW-5-110212 11/02/12	MW-05-022513 02/25/13	MW-5-050713 05/07/13	MW-5-121713 12/17/13	MW-6-110212 11/02/12	MW-06-022513 02/25/13	MW-6-050713 05/07/13	MW-6-121713 12/17/13	MW-7-110212 11/02/12	MW-07-022513 02/25/13	MW-7-050713 05/07/13	MW-7-121713 12/17/13
VOC[7]	tert-Butanol	µg/L	NE	NT	NT	NT	ND	NT	NT	NT	ND	NT	NT	NT	ND
	1,2-Dichloroethane (EDC)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichloroethene (TCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dibromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dicloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromodichloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Toluene	µg/L	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4-Methyl-2-pentanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2-Trichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dibromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromoethane (EDB)	µg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Hexanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Ethylbenzene	µg/L	700	ND	ND	ND	ND	ND	ND	**16.3**	ND	ND	ND	ND	ND
	Chlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	m,p-Xylene	µg/L	1,000[11]	ND	ND	ND	ND	ND	ND	**2.63**	ND	ND	ND	ND	ND
	o-Xylene	µg/L	1,000[11]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Styrene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromoform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Isopropylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	**3.55**	ND	ND	ND	ND	**3.22**
	n-Propylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	**4.28**	ND	ND	ND	ND	ND
	1,1,2,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3,5-Trimethylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,3-Trichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,4-Dichloro-2-butene	µg/L	NE	NT	NT	NT	ND	NT	NT	NT	ND	NT	NT	NT	ND
	4-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	tert-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,4-Trimethylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	sec-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	p-Isopropyltoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,4-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date											
				MW-5-110212 11/02/12	MW-05-022513 02/25/13	MW-5-050713 05/07/13	MW-5-121713 12/17/13	MW-6-110212 11/02/12	MW-06-022513 02/25/13	MW-6-050713 05/07/13	MW-6-121713 12/17/13	MW-7-110212 11/02/12	MW-07-022513 02/25/13	MW-7-050713 05/07/13	MW-7-121713 12/17/13
VOC[7]	1,2-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromo-3-chloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Hexachlorobutadiene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,4-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Naphthalene	µg/L	160	ND	ND	ND	ND	ND	ND	**7.74**	ND	ND	ND	ND	ND
	1,2,3-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Xylenes (total	µg/L	1,000	ND	ND	ND	ND	ND	ND	**2.63**	ND	ND	ND	ND	ND
GC[8]	Total Organic Carbon	mg/L	NE	NT	**9.91 (J)**	**6.0**	NT	NT	**2.29 (J)**	**2.6**	NT	NT	**2.96 (J)**	**2.5**	NT
Anions[9]	Nitrate-Nitrogen	mg/L	NE	NT	**0.230**	**0.330**	ND	NT	**1.73**	**0.830**	**1.45**	NT	ND	ND	**0.200**
	Sulfate	mg/L	NE	NT	**24.2**	**16.2**	**6.10**	NT	**37.6**	**33.5**	**39.0**	NT	**136**	**88.4**	**44.5**
CC[10]	Total Alkalinity	mg/L	NE	NT	NT	NT	**200**	NT	NT	NT	**325**	NT	NT	NT	**250**

			Well Name	MW-8		MW-9			MW-15			MW-22		
				Sample Name and Sample Date										
Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	MW-8-110212 11/02/12	MW-08-022513 02/25/13	MW-09-022513 02/25/13	MW-9-050713 05/07/13	MW-9-121713 12/17/13	MW-15-110212 11/02/12	MW-15-022513 02/25/13	MW-15-050713 05/07/13	MW-22-022513 02/25/13	MW-22-050713 05/07/13	MW-22-121713 12/17/13
TPH	Gasoline-range hydrocarbons[3]	µg/L	1,000/800	ND	ND	ND	ND	ND	ND	**105**	**141**	ND	ND	ND
	Diesel-range hydrocarbons[4]	mg/L	0.5	**2.42**	ND	ND	ND	ND	ND	**7.55**	**9.28**	ND	ND	ND
	Diesel-range hydrocarbons[5]	mg/L	0.5	NT	NT	NT	NT	NT	NT	**1.19**	NT	NT	NT	NT
	Heavy Oil-Range Hydrocarbons[4]	mg/L	0.5	**2.05**	ND	ND	ND	ND	ND	**7.88**	**12.3**	ND	ND	ND
	Heavy Oil-Range Hydrocarbons[5]	mg/L	0.5	NT	NT	NT	NT	NT	NT	**1.43**	NT	NT	NT	NT
Metals[6]	Arsenic	mg/L	5	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	**0.0011**
	Chromium	mg/L	50	ND	NT	NT	NT	ND	ND	NT	NT	NT	NT	ND
	Iron	mg/L	NE	ND	NT	NT	ND	ND	**0.339**	NT	**0.0340**	NT	**0.0827**	ND
	Lead	mg/L	15	NT	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND
	Manganese	mg/L	NE	**0.158**	NT	NT	**0.436**	**0.354**	**0.0581**	NT	**0.0278**	NT	ND	**0.256**
VOC[7]	Dichlorodifluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Vinyl chloride	µg/L	0.2	ND	ND	ND	ND	ND	**1.68**	ND	**3.58**	ND	ND	ND
	Bromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichlolofluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon disulfide	µg/L	NE	ND	ND	ND	ND	ND	**1.31**	**3.05**	ND	ND	ND	ND
	Methylene chloride	µg/L	5	ND	ND	ND	ND[13]	ND	ND	ND	ND[13]	ND	ND[13]	ND
	Acetone	µg/L	NE	ND	ND	ND	ND	ND	**33.4**	**51.3**	ND	ND	ND	ND
	trans-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methyl tert-butyl ether (MTBE)	µg/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2-Trichlorotrifluoroethane	µg/L	NE	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	ND
	1,1-Dichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2,2-Dichloropropane	µg/L	NE	ND	ND	ND	ND[12]	ND	ND	ND	ND[12]	ND	ND[12]	ND
	Bromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon tetrachloride	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1-Trichloroethane	µg/L	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Butanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Hexane	µg/L	NE	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	ND
	1,1-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzene	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date										
				MW-8-110212 11/02/12	MW-08-022513 02/25/13	MW-09-022513 02/25/13	MW-9-050713 05/07/13	MW-9-121713 12/17/13	MW-15-110212 11/02/12	MW-15-022513 02/25/13	MW-15-050713 05/07/13	MW-22-022513 02/25/13	MW-22-050713 05/07/13	MW-22-121713 12/17/13
	tert-Butanol	µg/L	NE	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	ND
	1,2-Dichloroethane (EDC)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichloroethene (TCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dibromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dicloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromodichloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Toluene	µg/L	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4-Methyl-2-pentanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND	ND	ND	**2.95**	**6.58**	**3.72**	ND	ND	ND
	1,1,2-Trichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dibromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromoethane (EDB)	µg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Hexanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Ethylbenzene	µg/L	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOC[7]	Chlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	m,p-Xylene	µg/L	1,000[11]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	o-Xylene	µg/L	1,000[11]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Styrene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromoform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Isopropylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Propylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3,5-Trimethylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,3-Trichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,4-Dichloro-2-butene	µg/L	NE	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	ND
	4-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	tert-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,4-Trimethylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	sec-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	p-Isopropyltoluene	µg/L	NE	ND	ND	ND	ND	ND	**26.8**	**25.9**	**17.2**	ND	ND	ND
	1,3-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,4-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date										
				MW-8-110212 11/02/12	MW-08-022513 02/25/13	MW-09-022513 02/25/13	MW-9-050713 05/07/13	MW-9-121713 12/17/13	MW-15-110212 11/02/12	MW-15-022513 02/25/13	MW-15-050713 05/07/13	MW-22-022513 02/25/13	MW-22-050713 05/07/13	MW-22-121713 12/17/13
VOC[7]	1,2-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromo-3-chloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Hexachlorobutadiene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,4-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Naphthalene	µg/L	160	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,3-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Xylenes (total	µg/L	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GC[8]	Total Organic Carbon	mg/L	NE	NT	**1.46 (J)**	**2.22 (J)**	**2.3**	NT	NT	**79.3 (J)**	**52**	**2.80 (J)**	**1.8**	NT
Anions[9]	Nitrate-Nitrogen	mg/L	NE	NT	**0.510**	**1.76**	**1.42**	**1.40**	NT	**0.210**	**0.400**	**2.05**	**0.700[14]**	**0.460**
	Sulfate	mg/L	NE	NT	**32.1**	**58.3**	**64.2**	**62.8**	NT	**3.77**	**5.18**	**35.2**	**19.1**	**27.8**
CC[10]	Total Alkalinity	mg/L	NE	NT	NT	NT	NT	**290**	NT	NT	NT	NT	NT	**205**

			Well Name	MW-23			MW-24			MW-25		
				Sample Name and Sample Date								
Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	MW-23-022513 02/25/13	MW-23-050713 05/07/13	MW-23-121713 12/17/13	MW-24-022513 02/25/13	MW-24-050813 05/08/13	MW-24-121713 12/17/13	MW-25-022513 02/25/13	MW-25-050713 05/07/13	MW-25-121813 12/18/13
TPH	Gasoline-range hydrocarbons[3]	µg/L	1,000/800	ND	ND	ND	**239**	ND	ND	ND	ND	ND
	Diesel-range hydrocarbons[4]	mg/L	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Diesel-range hydrocarbons[5]	mg/L	0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Heavy Oil-Range Hydrocarbons[4]	mg/L	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Heavy Oil-Range Hydrocarbons[5]	mg/L	0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
Metals[6]	Arsenic	mg/L	5	NT	NT	**0.0019**	NT	NT	ND	NT	NT	ND
	Chromium	mg/L	50	NT	NT	ND	NT	NT	ND	NT	NT	ND
	Iron	mg/L	NE	NT	ND	**0.125**	NT	**0.233**	ND	NT	ND	ND
	Lead	mg/L	15	ND	ND	ND	ND	ND	ND	ND	ND	**0.00046**
	Manganese	mg/L	NE	NT	**0.189**	**0.404**	NT	**0.0145**	**0.238**	NT	**1.14**	**1.39**
VOC[7]	Dichlorodifluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Vinyl chloride	µg/L	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichlolofluoromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon disulfide	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methylene chloride	µg/L	5	ND	ND[13]	ND	ND	ND[13]	ND	ND	ND[13]	ND
	Acetone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methyl tert-butyl ether (MTBE)	µg/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2-Trichlorotrifluoroethane	µg/L	NE	NT	NT	ND	NT	NT	ND	NT	NT	ND
	1,1-Dichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,2-Dichloroethene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2,2-Dichloropropane	µg/L	NE	ND	ND[12]	ND	ND	ND[12]	ND	ND	ND[12]	ND
	Bromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon tetrachloride	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1-Trichloroethane	µg/L	200	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Butanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Hexane	µg/L	NE	NT	NT	ND	NT	NT	ND	NT	NT	ND
	1,1-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzene	µg/L	5	**2.86**	**0.330**	ND	**1.39**	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date								
				MW-23-022513 02/25/13	MW-23-050713 05/07/13	MW-23-121713 12/17/13	MW-24-022513 02/25/13	MW-24-050813 05/08/13	MW-24-121713 12/17/13	MW-25-022513 02/25/13	MW-25-050713 05/07/13	MW-25-121813 12/18/13
VOC[7]	tert-Butanol	µg/L	NE	NT	NT	ND	NT	NT	ND	NT	NT	ND
	1,2-Dichloroethane (EDC)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichloroethene (TCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dibromomethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dicloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromodichloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Toluene	µg/L	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4-Methyl-2-pentanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,3-Dichloropropene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2-Trichloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dibromochloromethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3-Dichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromoethane (EDB)	µg/L	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2-Hexanone	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Ethylbenzene	µg/L	700	ND	ND	ND	**1.19**	ND	**1.75**	ND	ND	ND
	Chlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	m,p-Xylene	µg/L	1,000[11]	ND	ND	ND	**17.6**	ND	ND	ND	ND	ND
	o-Xylene	µg/L	1,000[11]	ND	ND	ND	**13.5**	ND	ND	ND	ND	ND
	Styrene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromoform	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Isopropylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Propylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,2,2-Tetrachloroethane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3,5-Trimethylbenzene	µg/L	NE	ND	ND	ND	**2.69**	ND	ND	ND	ND	ND
	2-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,3-Trichloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,4-Dichloro-2-butene	µg/L	NE	NT	NT	ND	NT	NT	ND	NT	NT	ND
	4-Chlorotoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	tert-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,4-Trimethylbenzene	µg/L	NE	ND	ND	ND	**10.5**	ND	**5.27**	ND	ND	ND
	sec-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	p-Isopropyltoluene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,3-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,4-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	n-Butylbenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date								
				MW-23-022513 02/25/13	MW-23-050713 05/07/13	MW-23-121713 12/17/13	MW-24-022513 02/25/13	MW-24-050813 05/08/13	MW-24-121713 12/17/13	MW-25-022513 02/25/13	MW-25-050713 05/07/13	MW-25-121813 12/18/13
VOC[7]	1,2-Dichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromo-3-chloropropane	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Hexachlorobutadiene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2,4-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Naphthalene	µg/L	160	ND	ND	ND	**4.79**	ND	ND	ND	ND	ND
	1,2,3-Trichlorobenzene	µg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Xylenes (total	µg/L	1,000	ND	ND	ND	**31.1**	ND	ND	ND	ND	ND
GC[8]	Total Organic Carbon	mg/L	NE	**4.29 (J)**	**3.0**	NT	**3.19 (J)**	**2.0**	NT	**2.39 (J)**	**1.7**	NT
Anions[9]	Nitrate-Nitrogen	mg/L	NE	ND	ND	**1.08**	**5.42**	**1.72**	**0.580**	ND	ND	ND
	Sulfate	mg/L	NE	**39.3**	**49.3**	**19.5**	**101**	**14.1**	**23.8**	**29.2**	**35.8**	**33.9**
CC[10]	Total Alkalinity	mg/L	NE	NT	NT	**335**	NT	NT	**180**	NT	NT	**190**

			Well Name			
				Sample Name and Sample Date		
Analyte Group	**Analyte**	**Unit**	**MTCA A Cleanup Level[2]**	**Duplicate-1-022513 (MW-24) 02/25/13**	**Duplicate-1-050713 (MW-24) 05/08/13**	**Duplicate-1-121713 (MW-24) 12/17/13**
TPH	Gasoline-range hydrocarbons[3]	µg/L	1,000/800	**264**	ND	ND
	Diesel-range hydrocarbons[4]	mg/L	0.5	ND	ND	ND
	Diesel-range hydrocarbons[5]	mg/L	0.5	NT	NT	NT
	Heavy Oil-Range Hydrocarbons[4]	mg/L	0.5	ND	ND	ND
	Heavy Oil-Range Hydrocarbons[5]	mg/L	0.5	NT	NT	NT
Metals[6]	Arsenic	mg/L	5	NT	NT	ND
	Chromium	mg/L	50	NT	NT	ND
	Iron	mg/L	NE	NT	**0.225**	ND
	Lead	mg/L	15	ND	ND	ND
	Manganese	mg/L	NE	NT	**0.0151**	**0.241**
VOC[7]	Dichlorodifluoromethane	µg/L	NE	ND	ND	ND
	Chloromethane	µg/L	NE	ND	ND	ND
	Vinyl chloride	µg/L	0.2	ND	ND	ND
	Bromomethane	µg/L	NE	ND	ND	ND
	Chloroethane	µg/L	NE	ND	ND	ND
	Trichlolofluoromethane	µg/L	NE	ND	ND	ND
	1,1-Dichloroethene	µg/L	NE	ND	ND	ND
	Carbon disulfide	µg/L	NE	ND	ND	ND
	Methylene chloride	µg/L	5	ND	ND[13]	ND
	Acetone	µg/L	NE	ND	ND	ND
	trans-1,2-Dichloroethene	µg/L	NE	ND	ND	ND
	Methyl tert-butyl ether (MTBE)	µg/L	20	ND	ND	ND
	1,1,2-Trichlorotrifluoroethane	µg/L	NE	NT	NT	ND
	1,1-Dichloroethane	µg/L	NE	ND	ND	ND
	cis-1,2-Dichloroethene	µg/L	NE	ND	ND	ND
	2,2-Dichloropropane	µg/L	NE	ND	ND[12]	ND
	Bromochloromethane	µg/L	NE	ND	ND	ND
	Chloroform	µg/L	NE	ND	ND	ND
	Carbon tetrachloride	µg/L	NE	ND	ND	ND
	1,1,1-Trichloroethane	µg/L	200	ND	ND	ND
	2-Butanone	µg/L	NE	ND	ND	ND
	n-Hexane	µg/L	NE	NT	NT	ND
	1,1-Dichloropropene	µg/L	NE	ND	ND	ND
	Benzene	µg/L	5	**1.49**	ND	**0.310**

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date		
				Duplicate-1-022513 (MW-24) 02/25/13	Duplicate-1-050713 (MW-24) 05/08/13	Duplicate-1-121713 (MW-24) 12/17/13
VOC[7]	tert-Butanol	µg/L	NE	NT	NT	ND
	1,2-Dichloroethane (EDC)	µg/L	5	ND	ND	ND
	Trichloroethene (TCE)	µg/L	5	ND	ND	ND
	Dibromomethane	µg/L	NE	ND	ND	ND
	1,2-Dicloropropane	µg/L	NE	ND	ND	ND
	Bromodichloromethane	µg/L	NE	ND	ND	ND
	cis-1,3-Dichloropropene	µg/L	NE	ND	ND	ND
	Toluene	µg/L	1,000	ND	ND	ND
	4-Methyl-2-pentanone	µg/L	NE	ND	ND	ND
	trans-1,3-Dichloropropene	µg/L	NE	ND	ND	ND
	Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND
	1,1,2-Trichloroethane	µg/L	NE	ND	ND	ND
	Dibromochloromethane	µg/L	NE	ND	ND	ND
	1,3-Dichloropropane	µg/L	NE	ND	ND	ND
	1,2-Dibromoethane (EDB)	µg/L	0.01	ND	ND	ND
	2-Hexanone	µg/L	NE	ND	ND	ND
	Ethylbenzene	µg/L	700	**1.29**	ND	**1.86**
	Chlorobenzene	µg/L	NE	ND	ND	ND
	1,1,1,2-Tetrachloroethane	µg/L	NE	ND	ND	ND
	m,p-Xylene	µg/L	1,000[11]	**19.0**	ND	ND
	o-Xylene	µg/L	1,000[11]	**14.7**	ND	ND
	Styrene	µg/L	NE	ND	ND	ND
	Bromoform	µg/L	NE	ND	ND	ND
	Isopropylbenzene	µg/L	NE	ND	ND	ND
	n-Propylbenzene	µg/L	NE	ND	ND	ND
	1,1,2,2-Tetrachloroethane	µg/L	NE	ND	ND	ND
	Bromobenzene	µg/L	NE	ND	ND	ND
	1,3,5-Trimethylbenzene	µg/L	NE	**2.71**	ND	ND
	2-Chlorotoluene	µg/L	NE	ND	ND	ND
	1,2,3-Trichloropropane	µg/L	NE	ND	ND	ND
	trans-1,4-Dichloro-2-butene	µg/L	NE	NT	NT	ND
	4-Chlorotoluene	µg/L	NE	ND	ND	ND
	tert-Butylbenzene	µg/L	NE	ND	ND	ND
	1,2,4-Trimethylbenzene	µg/L	NE	**11.2**	ND	**5.59**
	sec-Butylbenzene	µg/L	NE	ND	ND	ND
	p-Isopropyltoluene	µg/L	NE	ND	ND	ND
	1,3-Dichlorobenzene	µg/L	NE	ND	ND	ND
	1,4-Dichlorobenzene	µg/L	NE	ND	ND	ND
	n-Butylbenzene	µg/L	NE	ND	ND	ND

Analyte Group	Analyte	Unit	MTCA A Cleanup Level[2]	Sample Name and Sample Date		
				Duplicate-1-022513 (MW-24) 02/25/13	Duplicate-1-050713 (MW-24) 05/08/13	Duplicate-1-121713 (MW-24) 12/17/13
VOC[7]	1,2-Dichlorobenzene	µg/L	NE	ND	ND	ND
	1,2-Dibromo-3-chloropropane	µg/L	NE	ND	ND	ND
	Hexachlorobutadiene	µg/L	NE	ND	ND	ND
	1,2,4-Trichlorobenzene	µg/L	NE	ND	ND	ND
	Naphthalene	µg/L	160	**6.15**	ND	ND
	1,2,3-Trichlorobenzene	µg/L	NE	ND	ND	ND
	Xylenes (total	µg/L	1,000	**33.7**	ND	ND
GC[8]	Total Organic Carbon	mg/L	NE	**3.14 (J)**	**1.7**	NT
Anions[9]	Nitrate-Nitrogen	mg/L	NE	**5.27**	**1.82**	**0.520**
	Sulfate	mg/L	NE	**98.0**	**13.9**	**23.6**
CC[10]	Total Alkalinity	mg/L	NE	NT	NT	**210**

Notes:

[1]Chemical analyses conducted by TestAmerica Laboratories, Inc. located in Spokane Valley, Washington.

[2]Washington State, Model Toxics Control Act (MTCA) Method A cleanup levels.

[3]Gasoline-range petroleum hydrocarbons were analyzed using NWTPH-Gx. The cleanup level is 800 mg/kg when benzene is detected and 1,000 mg/kg when benzene is not detected.

[4]Diesel-range petroleum hydrocarbons and lube oil-range hydrocarbons were analyzed using NWTPH-Dx.

[5]Diesel-range petroleum hydrocarbons and lube oil-range hydrocarbons were analyzed using NWTPH-Dx with silica gel cleanup.

[6]Metals were analyzed using EPA 6010/7000 or EPA 200 Series Methods.

[7]Volatile organic compounds (VOCs) were analyzed using EPA 8260C Methods.

[8]General chemistry (GC) was analyzed using EPA Method 415.

[9]Anions were analyzed using EPA Method 300.0.

[10]Conventional Chemistry (CC) was analyzed using APHA/EPA Methods.

[11]MTCA Method A cleanup level for total xylenes is 1,000 µg/L.

[12]Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

[13]Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

[14]Sample analysis performed past method-specific holding time.

(J) The recovery of matrix sample CMD for the laboratory MS sample was outside of control limits. Results from field samples are qualified as estimated.

µg/L = micrograms per liter; mg/L = milligrams per liter; ND = non detect; NT = not tested; TPH = total petroleum hydrocarbons

Bolding indicates the analyte was detected at a concentration greater than the method reporting limit.

Indicates the detected concentration of analyte was greater than the MTCA Method A cleanup level

Indicates the reporting limit of a non-detected analyte exceeded the MTCA Method A cleanup level

Table 3

Summary of Field-Measured Natural Attenuation Parameters[1]

Roby's Station
Buena, Washington

Well I.D.	Date Collected	pH	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (Fe^{+2}) (mg/L)
MW-5	11/02/12	7.01	0.4107	-110	0.00	0.0901	17.88	
	02/25/13	9.07	0.3845	-43	0.00	0.6241	11.08	
	05/07/13	7.02	0.3814	-97	0.00	0.9853	14.91	
	12/17/13	7.08	0.3374	-130	0.20	0.8017	13.22	2.25
MW-6	11/02/12	6.93	0.7493	163	0.01	1.770	18.99	
	02/25/13	9.10	0.4745	-8	0.03	2.254	9.96	
	05/07/13	7.19	0.362	454	0.00	1.788	14.47	
	12/17/13	7.15	0.5315	-36	0.08	0	13.30	0
MW-7	11/02/12	6.98	0.6871	-78	0.00	7.831	16.56	
	02/25/13	7.34	0.6545	-120	0.00	6.064	13.25	
	05/07/13	7.26	0.5471	-190	0.00	27.50	13.54	
	12/17/13	7.03	0.4790	-99	0.05	10.77	14.02	2.1
MW-8	11/02/12	7.04	0.4280	63	0.02	1.079	15.72	
	02/25/13	7.34	0.4261	33	0.01	1.963	12.24	
	05/07/13[2]	NM	NM	NM	NM	NM	NM	
	12/17/13[2]	NM	NM	NM	NM	NM	NM	NM
MW-9	02/25/13	7.33	0.4696	83	0.00	6.257	8.26	
	05/07/13	7.08	0.5548	486	0.00	0	15.63	
	12/17/13	7.02	0.5146	7	0.05	0.2948	10.60	0
MW-15	11/02/12	6.75	0.8940	-307	0.00	37.24	17.25	
	02/25/13	9.23	0.8524	-300	0.00	58.64	10.39	
	05/07/13	6.78	0.9725	-277	0.00	9.456	17.65	
	12/17/13[3]	NM	NM	NM	NM	NM	NM	NM
MW-22	02/25/13	7.69	0.3334	59	6.14	2.084	6.98	
	05/07/13	7.23	0.1302	70	2.41	4.763	16.08	
	12/17/13	7.07	0.3160	98	0.85	1.562	6.43	0
MW-23	02/25/13	7.26	0.5634	-158	0.00	13.00	11.59	
	05/07/13	7.01	0.3845	-118	0.00	19.54	13.23	
	12/17/13	6.85	0.5351	-101	0.04	4.638	13.84	1

Well I.D.	Date Collected	pH	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (Fe^{+2}) (mg/L)
MW-24	02/25/13	9.05	0.4323	-4	2.30	0.8942	6.84	
	05/08/13	7.46	0.1462	-63	0.05	9.891	14.89	
	12/17/13	7.10	0.2979	-51	0.08	3.399	8.18	0
MW-25	02/25/13	7.29	0.3937	-71	0.09	2.514	8.76	
	05/07/13	6.94	0.3492	235	0.05	6.748	14.34	
	12/18/13	7.00	0.3758	-56	0.30	0.6632	10.64	0

Notes:

[1]Reported water quality parameters reflect stabilized conditions at the conclusion of well purging during low-flow sampling.

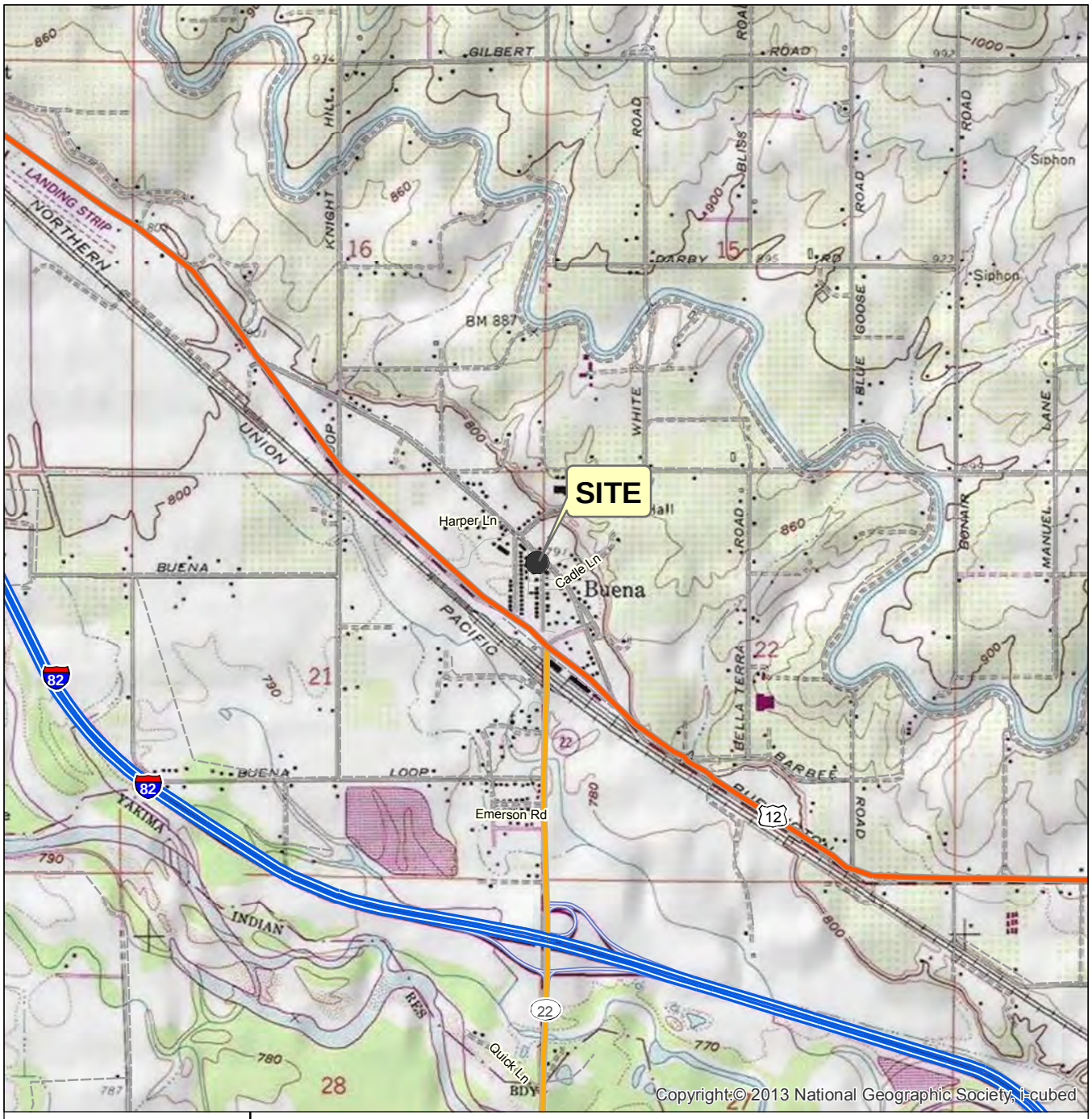
[2]Unable to find MW-8. Well buried by crushed rock base course.

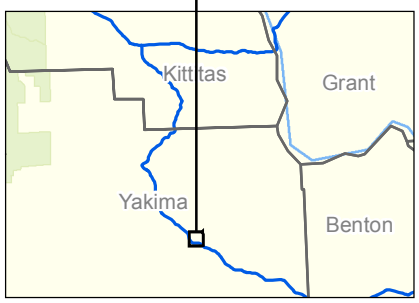
[3]Well MW-15 not sampled due to possible cross-contamination from sewer.

°C = degrees Celsius; mS/cm = millisiemens per centimeter; mg/l - milligrams per liter; mV = millivolts; NTU = nephelometric turbidity units; NM = Not Measured.

FIGURES

GeoEngineers





N
W E
S

2,000 0 2,000
Feet

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 Sources: ESRI Data & Maps, Street Maps 2008.
Projection: NAD 1983, WA State Plane South, feet.

Vicinity Map

Roby's Station
Buena, Washington

GeoEngineers

Figure 1

Map Revised: 3/06/2013 CRC

Office: SPO W:\Spokane\Projects\0\0504060\GIS\0504060002_VM_F1.mxd

Office: SPO Path: P:\0\0504060\GIS\050406002_SP_F2_MW.mxd Map Revised: 11 April 2013 ccabrera

MW-9 Existing Monitoring Well Number and Approximate Location

Approximate Location of Excavation Limits

Approximate Location of Concrete Irrigation Line

Approximate Location of Buena Sewer Corridor

N W E S

80 0 80

Feet

Data Source: World imagery Aerial from ESRI Data Online.
Sewer corridor locations provided from Ecology dated 09/26/2011.
Concrete irrigation line located with GPS by GeoEngineers staff.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet
This is a full size drawing that is intended to be printed out on a 11" x 17" sheet of paper

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.
3. This site plan in based on the latest aerial imagery available from ESRI World Imagery, dated July, 2010. Please note that subsequent to these aerial images, the building at Roby's was demolished in late 2011.

Site Plan

Roby's Station
Buena, Washington

GeoEngineers

Figure 2

Office: SPO Path: W:\Spokane\Projects\0\0504060\GIS\050406002_SP_GW_Dec2013.mxd Map Revised: 10 March 2014 ccabrera

Well No.	GRPH (µg/L)	DRPH (µg/L)	ORPH (µg/L)	BTEX (µg/L)
MW-5	ND	ND	ND	ND
MW-6	ND	ND	ND	ND
MW-7	235	ND	ND	ND
MW-8	-	-	-	-
MW-9	ND	ND	ND	ND
MW-15	-	-	-	-
MW-22	ND	ND	ND	ND
MW-23	ND	ND	ND	ND
MW-24	ND	ND	ND	ethylbenzene= 1.75
MW-25	ND	ND	ND	ND
MTCA Method A Cleanup Level	1,000	500	500	ethylbenzene = 700
ND= Not Detected				
" - "means not tested				

MW-9
787.14
Monitoring Well Number, Groundwater Elevation and Approximate Location

Groundwater Elevation Contour (0.1-foot Interval)

Interpreted Groundwater Flow Direction

NA: Not Analyzed

N
W E
S

80 0 80
Feet

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

This is a full size drawing that is intended to be printed out on a 11" x 17" sheet of paper

Notes:
1. The locations of all figures shown are approximate
2. Groundwater elevation contours generated using the computer program Surfer and GeoEngineers' interpretation.
3.Elevations are referenced to the North American Vertical Datum of 1988.
4.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.
5. This site plan in based on the latest aerial imagery available from ESRI World Imagery, dated July, 2010. Please note that subsequent to these aerial images, the building at Roby's was demolished in late 2011.

Groundwater Elevation and Interpreted Flow Direction December 17 and 18, 2013

Roby's Station
Buena, Washington

GeoEngineers

Figure 3

APPENDICES

GeoEngineers

APPENDIX A
Field Procedures

APPENDIX A
FIELD PROCEDURES

General

Field methods generally were performed in compliance with the project Work Plan and associated Sampling and Analysis Plan (SAP) dated November 23, 2011 (GeoEngineers, 2011). Field procedures at the site described in this report include:

- Collecting groundwater samples from monitoring wells near the Roby's site, specifically MW-5, MW-6, MW-7, MW-9, and MW-22 through MW-25 in December 2013.

Monitoring Headspace Vapor Measurements

Headspace vapor measurement involved placing the tip of the PID into the headspace of the monitoring well and covering the top of the monitoring well to prevent the exchange of ambient air with air in the monitoring well. Headspace vapor measurements targeted volatile petroleum hydrocarbon compounds. In this application, the PID measured concentration of organic vapors ionizable by a 10.6 ev lamp in the range between 1.0 and 2,000 ppm, with a resolution of ± 2 ppm.

Groundwater Elevations

Depths to groundwater were measured relative to the north side of the monitoring well casing rim using an electric water level indicator. The probe of the water level indicator was decontaminated between wells using a detergent wash, followed by two distilled water rinses.

Low-Flow Sampling Procedures

Groundwater sampling was performed consistent with the EPA's low-flow groundwater sampling procedure, as described by EPA (1996) and Puls and Barcelona (1996). Monitoring well purging and sampling activities were accomplished using a portable peristaltic pump with disposable tubing. During purging activities, water quality parameters, including pH, conductivity, temperature, turbidity, oxidation-reduction potential and dissolved oxygen, were measured using an In-Situ Troll 9500 multi-parameter meter equipped with a flow-through cell; measurements were recorded approximately every 3 minutes. The meter calibration was verified at the beginning of each work day consistent with manufacturer recommendations prior to purging and sampling activities.

Groundwater samples were collected after (1) water quality parameters had stabilized; or (2) a maximum purge time of 30 minutes was achieved. During purging and sampling, purge rate was not allowed to exceed 500 milliliters per minute. Water quality parameter stabilization criteria include the following:

- Turbidity: ±10 percent or ±10 nephelometric turbidity units (NTU);
- Dissolved oxygen: ±10 percent;
- Conductivity: ±3 percent;
- pH: ±0.1 unit;
- Temperature: ±3 percent; and

- Oxidation reduction potential: ±10 percent or ±10 mV.

After groundwater quality stabilization criteria were reached, the pump's discharge tubing was disconnected from the flow-through cell and groundwater samples were collected for analysis.

Each sample was pumped directly into sample containers supplied by the laboratory. Groundwater samples collected for chemical analysis were kept cool during on-site storage and transport to the laboratory. Chain-of-custody procedures were observed during transport of the groundwater samples.

APPENDIX B
Chemical Analytical Laboratory Reports

GeoEngineers

523 East Second Avenue, Spokane, Washington 99202, Telephone: 509.363.3125, Fax: 509.363.3126 www.geoengineers.com

Data Validation Report

Project: Buena Petroleum Contamination
December 2013 Groundwater Samples

GEI File No: 00504-060-02

Date: February 19, 2014

This report documents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2A data validation (USEPA Document 540-R-08-005; USEPA, 2009) of analytical data from the analyses of groundwater samples collected as part of the December 2013 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Roby's Station Site located at the intersection of Buena Road and Burr Street in Buena, Washington.

Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2008) and Inorganic Superfund Data Review (USEPA 2010) (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 (Appendix B of the Work Plan, Interim Action (Data Gap Assessment); GeoEngineers, 2011), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Miscellaneous

Validated Sample Delivery Groups

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

TABLE 1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
SWL0096	Duplicate-1-121713, MW-5-121713, MW-6-121713, MW-7-121713, MW-9-121713, MW-22-121713, MW-23-121713, MW-24-121713, MW-25-121813

Chemical Analysis Performed

TestAmerica Laboratories, Inc. (TestAmerica), located in Spokane, Washington, performed laboratory analysis on the groundwater samples using the following methods:

- Volatile Organic Compounds (VOCs) by Method SW8260C;
- Gas-Range Hydrocarbons (NWTPH-Gx) by Method NWTPH-Gx;
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Total Metals by Method EPA200.8;
- Dissolved Metals by Method EPA200.7;
- Anions by Method EPA300.0; and
- Total Alkalinity by Method SM2320B

Data Validation Summary

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

Data Package Completeness

TestAmerica provided all required deliverables for the data validation according to the National Functional Guidelines. The laboratory appears to have followed adequate corrective action processes; however, the laboratory analytical report does not contain a 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.

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 all analyses. The sample coolers arrived at the laboratory at the appropriate temperatures of between two and six degrees Celsius.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries are calculated following analysis. All surrogate percent recoveries for field samples were within the laboratory control limits.

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 all sample batches, method blanks for all applicable methods were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in any of the method blanks, with the following exception:

(Dissolved Metals) The method blank extracted on 1/6/2014 reported a positive concentration for manganese. A positive concentration for manganese was reported in Sample MW-25-121813; however, this concentration was greater than ten times the concentration reported in the method blank. For this reason, no action was required for this outlier.

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.

For inorganic methods, the matrix spike is followed by a post-digestion spike sample if any element percent recoveries were outside the control limits in the matrix spike. The percent recovery control limits for matrix spikes are 75% to 125%.

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 exception:

(Anions) The laboratory performed an MS/MSD sample set with percent recovery outliers; however it was performed on a sample that was associated with another SDG. Therefore, no action was required for these outliers.

Laboratory Control Samples/Laboratory Control Sample Duplicates

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/LCSD control limits for accuracy and precision are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent

recovery control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD 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.

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. For organic analyses, the RPD control limits are specified in the laboratory documents. For inorganic analyses, the RPD control limit 20 percent. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met.

Field Duplicates

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 water samples is 30 percent.

One field duplicate sample pair, MW-24-121713 and Duplicate-1-121713, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair.

Miscellaneous

(Dissolved Metals) The laboratory noted insufficient sample volume was received to meet the method QC requirements for Samples Duplicate-1-121713, MW-5-121713, MW-6-121713, MW-7-121713, MW-9-121713, MW-22-121713, MW-23-121713, and MW-24-121713.

Overall Assessment

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD percent recovery values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values. No analytical results were qualified. All data are acceptable for the intended use.

References

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

U.S. Environmental Protection Agency (USEPA). "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," EPA-540-R-08-01. June 2008.

U.S. Environmental Protection Agency (USEPA). "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review," EPA-540-R-10-011. January 2010.

GeoEngineers, Inc., “Work Plan, Interim Action (Data Gap Investigation), Roby’s Project,” prepared for Washington State Department of Ecology, GEI File No. 0504-060-02, November 23, 2011.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SWL0096
Client Project/Site: 0504-060-02
Client Project Description: Roby's Station - Buena

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: Dave Lauder

Authorized for release by:
1/7/2014 4:06:26 PM

Randee Decker, Project Manager
(509)924-9200
Randee.Decker@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWL0096-01	MW-6-121713	Water	12/17/13 10:14	12/19/13 08:20
SWL0096-02	MW-5-121713	Water	12/17/13 11:19	12/19/13 08:20
SWL0096-03	MW-22-121713	Water	12/17/13 10:38	12/19/13 08:20
SWL0096-04	MW-23-121713	Water	12/17/13 11:54	12/19/13 08:20
SWL0096-05	MW-24-121713	Water	12/17/13 12:28	12/19/13 08:20
SWL0096-06	MW-9-121713	Water	12/17/13 13:58	12/19/13 08:20
SWL0096-07	Duplicate-1-121713	Water	12/17/13 12:34	12/19/13 08:20
SWL0096-08	MW-7-121713	Water	12/17/13 12:45	12/19/13 08:20
SWL0107-01	MW-25-121813	Water	12/18/13 12:47	12/19/13 11:20

Definitions/Glossary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Qualifiers

Fuels

Qualifier	Qualifier Description
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Metals

Qualifier	Qualifier Description
MNR3	Insufficient sample received to meet method QC requirements.
B	Analyte was detected in the associated Method Blank.
B1	Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.

Wet Chem

Qualifier	Qualifier Description
A-01	The ending Calibration Verification recovery was below the method control limit for this analyte. A low bias to the sample result is indicated.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
A-01	The ending Calibration Verification recovery was below the method control limit for this analyte. A low bias to the sample result is indicated.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-6-121713
Date Collected: 12/17/13 10:14
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00

Client Sample ID: MW-6-121713
Date Collected: 12/17/13 10:14
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:16	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*
1,2-dichloroethane-d4	*99.0*		*70 - 140*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*
Toluene-d8	*101*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 14:16	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*
Toluene-d8	*101*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*
4-bromofluorobenzene	*106*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 14:16*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.237		mg/l		12/20/13 10:10	12/20/13 16:19	1.00
Heavy Oil Range Hydrocarbons	ND		0.396		mg/l		12/20/13 10:10	12/20/13 16:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*55.7*		*50 - 150*	*12/20/13 10:10*	*12/20/13 16:19*	*1.00*
n-Triacontane-d62	*60.9*		*50 - 150*	*12/20/13 10:10*	*12/20/13 16:19*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0010**		0.0010		mg/L		12/30/13 10:48	12/31/13 20:22	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:22	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:22	1

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-6-121713

Lab Sample ID: SWL0096-01

Date Collected: 12/17/13 10:14

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:14	1.00
Manganese	**1.33**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:14	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**1.45**		0.200		mg/l		12/19/13 08:30	12/19/13 08:45	1.00
Sulfate	**39.0**		0.500		mg/l		12/19/13 08:30	12/19/13 08:45	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**325**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client Sample ID: MW-5-121713

Lab Sample ID: SWL0096-02

Date Collected: 12/17/13 11:19

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-5-121713
Date Collected: 12/17/13 11:19
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 14:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*
1,2-dichloroethane-d4	*100*		*70 - 140*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*
Toluene-d8	*94.5*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 14:39	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-5-121713

Lab Sample ID: SWL0096-02

Date Collected: 12/17/13 11:19

Matrix: Water

Date Received: 12/19/13 08:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*105*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*
Toluene-d8	*94.5*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 14:39*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.242		mg/l		12/20/13 10:10	12/20/13 16:42	1.00
Heavy Oil Range Hydrocarbons	ND		0.404		mg/l		12/20/13 10:10	12/20/13 16:42	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	*56.4*		*50 - 150*	*12/20/13 10:10*	*12/20/13 16:42*	*1.00*
n-Triacontane-d62	*63.6*		*50 - 150*	*12/20/13 10:10*	*12/20/13 16:42*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0041**		0.0010		mg/L		12/30/13 10:48	12/31/13 20:02	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:02	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:02	1

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.101**	**MNR3**	0.0300		mg/l		12/30/13 10:52	01/03/14 12:21	1.00
Manganese	**0.594**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:21	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		12/19/13 08:30	12/19/13 09:26	1.00
Sulfate	**6.10**		0.500		mg/l		12/19/13 08:30	12/19/13 09:26	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**200**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client Sample ID: MW-22-121713

Lab Sample ID: SWL0096-03

Date Collected: 12/17/13 10:38

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-22-121713
Date Collected: 12/17/13 10:38
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-03
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00

Client Sample ID: MW-22-121713
Date Collected: 12/17/13 10:38
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-03
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*
1,2-dichloroethane-d4	*101*		*70 - 140*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*
Toluene-d8	*99.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*
4-bromofluorobenzene	*99.7*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 15:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*
Toluene-d8	*99.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*
4-bromofluorobenzene	*99.7*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 15:03*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.236		mg/l		12/20/13 10:10	12/20/13 17:04	1.00
Heavy Oil Range Hydrocarbons	ND		0.393		mg/l		12/20/13 10:10	12/20/13 17:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*57.2*		*50 - 150*	*12/20/13 10:10*	*12/20/13 17:04*	*1.00*
n-Triacontane-d62	*69.2*		*50 - 150*	*12/20/13 10:10*	*12/20/13 17:04*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0011**		0.0010		mg/L		12/30/13 10:48	12/31/13 20:07	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:07	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:07	1

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:23	1.00
Manganese	**0.256**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:23	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**0.460**		0.200		mg/l		12/19/13 08:30	12/19/13 09:06	1.00
Sulfate	**27.8**		0.500		mg/l		12/19/13 08:30	12/19/13 09:06	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**205**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-23-121713
Date Collected: 12/17/13 11:54
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00

Client Sample ID: MW-23-121713
Date Collected: 12/17/13 11:54
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:26	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*
1,2-dichloroethane-d4	*99.4*		*70 - 140*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*
Toluene-d8	*99.0*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*
4-bromofluorobenzene	*103*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 15:26	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*
Toluene-d8	*99.0*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*
4-bromofluorobenzene	*103*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 15:26*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.235		mg/l		12/20/13 10:10	12/20/13 17:26	1.00
Heavy Oil Range Hydrocarbons	ND		0.392		mg/l		12/20/13 10:10	12/20/13 17:26	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*58.2*		*50 - 150*	*12/20/13 10:10*	*12/20/13 17:26*	*1.00*
n-Triacontane-d62	*71.2*		*50 - 150*	*12/20/13 10:10*	*12/20/13 17:26*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0019**		0.0010		mg/L		12/30/13 10:48	12/31/13 20:37	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:37	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:37	1

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-23-121713

Lab Sample ID: SWL0096-04

Date Collected: 12/17/13 11:54

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.125	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:25	1.00
Manganese	0.404	MNR3	0.0100		mg/l		12/30/13 10:52	01/03/14 12:25	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	1.08		0.400		mg/l		12/19/13 08:30	12/19/13 09:47	2.00
Sulfate	19.5		1.00		mg/l		12/19/13 08:30	12/19/13 09:47	2.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	335		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client Sample ID: MW-24-121713

Lab Sample ID: SWL0096-05

Date Collected: 12/17/13 12:28

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00

Client Sample ID: MW-24-121713
Date Collected: 12/17/13 12:28
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-05
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Ethylbenzene	**1.75**		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2,4-Trimethylbenzene	**5.27**		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 15:49	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*
1,2-dichloroethane-d4	*100*		*70 - 140*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*
Toluene-d8	*99.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 15:49	1.00

Client Sample ID: MW-24-121713

Lab Sample ID: SWL0096-05

Date Collected: 12/17/13 12:28

Matrix: Water

Date Received: 12/19/13 08:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*
Toluene-d8	*99.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 15:49*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.244		mg/l		12/20/13 10:10	12/20/13 17:48	1.00
Heavy Oil Range Hydrocarbons	ND		0.407		mg/l		12/20/13 10:10	12/20/13 17:48	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-FBP	*51.0*		*50 - 150*	*12/20/13 10:10*	*12/20/13 17:48*	*1.00*
n-Triacontane-d62	*62.7*		*50 - 150*	*12/20/13 10:10*	*12/20/13 17:48*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		12/30/13 10:48	12/31/13 20:42	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:42	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:42	1

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:27	1.00
Manganese	**0.238**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:27	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**0.580**		0.400		mg/l		12/19/13 08:30	12/19/13 10:07	2.00
Sulfate	**23.8**		1.00		mg/l		12/19/13 08:30	12/19/13 10:07	2.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**180**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client Sample ID: MW-9-121713

Lab Sample ID: SWL0096-06

Date Collected: 12/17/13 13:58

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-9-121713
Date Collected: 12/17/13 13:58
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-06
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-9-121713
Date Collected: 12/17/13 13:58
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-06
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:12	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*104*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*
1,2-dichloroethane-d4	*102*		*70 - 140*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*
Toluene-d8	*99.9*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 16:12	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*104*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*
Toluene-d8	*99.9*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 16:12*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.234		mg/l		12/20/13 10:10	12/20/13 18:09	1.00
Heavy Oil Range Hydrocarbons	ND		0.390		mg/l		12/20/13 10:10	12/20/13 18:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*60.3*		*50 - 150*	*12/20/13 10:10*	*12/20/13 18:09*	*1.00*
n-Triacontane-d62	*70.0*		*50 - 150*	*12/20/13 10:10*	*12/20/13 18:09*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		12/30/13 10:48	12/31/13 20:46	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:46	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:46	1

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:33	1.00
Manganese	**0.354**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:33	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**1.40**		0.400		mg/l		12/19/13 08:30	12/19/13 10:28	2.00
Sulfate	**62.8**		1.00		mg/l		12/19/13 08:30	12/19/13 10:28	2.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**290**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: Duplicate-1-121713
Date Collected: 12/17/13 12:34
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-07
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Benzene	**0.310**		0.200		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Ethylbenzene	**1.86**		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00

Client Sample ID: Duplicate-1-121713
Date Collected: 12/17/13 12:34
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-07
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2,4-Trimethylbenzene	**5.59**		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*
1,2-dichloroethane-d4	*102*		*70 - 140*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*
Toluene-d8	*97.7*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*
4-bromofluorobenzene	*98.7*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 16:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*
Toluene-d8	*97.7*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*
4-bromofluorobenzene	*98.7*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 16:36*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.244		mg/l		12/20/13 10:10	12/20/13 18:31	1.00
Heavy Oil Range Hydrocarbons	ND		0.407		mg/l		12/20/13 10:10	12/20/13 18:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*58.7*		*50 - 150*	*12/20/13 10:10*	*12/20/13 18:31*	*1.00*
n-Triacontane-d62	*76.2*		*50 - 150*	*12/20/13 10:10*	*12/20/13 18:31*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		12/30/13 10:48	12/31/13 20:51	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:51	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:51	1

Client Sample ID: Duplicate-1-121713

Lab Sample ID: SWL0096-07

Date Collected: 12/17/13 12:34

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:36	1.00
Manganese	**0.241**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:36	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**0.520**		0.400		mg/l		12/19/13 08:30	12/19/13 10:49	2.00
Sulfate	**23.6**		1.00		mg/l		12/19/13 08:30	12/19/13 10:49	2.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**210**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client Sample ID: MW-7-121713

Lab Sample ID: SWL0096-08

Date Collected: 12/17/13 12:45

Matrix: Water

Date Received: 12/19/13 08:20

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00

Client Sample ID: MW-7-121713
Date Collected: 12/17/13 12:45
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-08
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Isopropylbenzene	**3.22**		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 16:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*
1,2-dichloroethane-d4	*102*		*70 - 140*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*
Toluene-d8	*97.9*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*
4-bromofluorobenzene	*102*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**235**		100		ug/l		12/19/13 09:30	12/19/13 16:59	1.00

Client Sample ID: MW-7-121713

Lab Sample ID: SWL0096-08

Date Collected: 12/17/13 12:45

Matrix: Water

Date Received: 12/19/13 08:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*
Toluene-d8	*97.9*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*
4-bromofluorobenzene	*102*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 16:59*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.237		mg/l		12/20/13 10:10	12/20/13 18:53	1.00
Heavy Oil Range Hydrocarbons	ND		0.395		mg/l		12/20/13 10:10	12/20/13 18:53	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*62.4*		*50 - 150*	*12/20/13 10:10*	*12/20/13 18:53*	*1.00*
n-Triacontane-d62	*85.9*		*50 - 150*	*12/20/13 10:10*	*12/20/13 18:53*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0013**		0.0010		mg/L		12/30/13 10:48	12/31/13 20:56	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:56	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 20:56	1

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.106**	**MNR3**	0.0300		mg/l		12/30/13 10:52	01/03/14 12:38	1.00
Manganese	**1.21**	**MNR3**	0.0100		mg/l		12/30/13 10:52	01/03/14 12:38	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	**0.200**		0.200		mg/l		12/19/13 08:30	12/19/13 11:48	1.00
Sulfate	**44.5**		0.500		mg/l		12/19/13 08:30	12/19/13 11:48	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**250**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client Sample ID: MW-25-121813

Lab Sample ID: SWL0107-01

Date Collected: 12/18/13 12:47

Matrix: Water

Date Received: 12/19/13 11:20

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-25-121813
Date Collected: 12/18/13 12:47
Date Received: 12/19/13 11:20

Lab Sample ID: SWL0107-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00

Client Sample ID: MW-25-121813
Date Collected: 12/18/13 12:47
Date Received: 12/19/13 11:20

Lab Sample ID: SWL0107-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 21:15	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*
1,2-dichloroethane-d4	*106*		*70 - 140*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*
Toluene-d8	*97.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 21:15	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*
Toluene-d8	*97.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 21:15*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.233		mg/l		12/26/13 09:24	12/26/13 21:35	1.00
Heavy Oil Range Hydrocarbons	ND	C	0.389		mg/l		12/26/13 09:24	12/26/13 21:35	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*59.4*		*50 - 150*	*12/26/13 09:24*	*12/26/13 21:35*	*1.00*
n-Triacontane-d62	*75.1*		*50 - 150*	*12/26/13 09:24*	*12/26/13 21:35*	*1.00*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		12/30/13 10:48	12/31/13 19:28	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 19:28	1
Lead	**0.00046**		0.00040		mg/L		12/30/13 10:48	12/31/13 19:28	1

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.0300		mg/l		01/06/14 15:31	01/07/14 15:24	1.00
Manganese	**1.39**	**B1**	0.0100		mg/l		01/06/14 15:31	01/07/14 15:24	1.00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		12/19/13 12:54	12/19/13 14:45	1.00
Sulfate	**33.9**		0.500		mg/l		12/19/13 12:54	12/20/13 10:45	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	**190**		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 13L0102-BLK1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dichlorodifluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chloromethane	ND		3.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Vinyl chloride	ND		0.200		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromomethane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Trichlorofluoromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dichlorofluoromethane	ND		0.100		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Carbon disulfide	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Methylene chloride	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Acetone	ND		25.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Methyl tert-butyl ether	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1-Dichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chloroform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Carbon tetrachloride	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,1-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2-Butanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
n-Hexane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13L0102-BLK1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Benzene	ND		0.200		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
tert-Butanol	ND		5.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Trichloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dibromomethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromodichloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Toluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
4-Methyl-2-pentanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Tetrachloroethene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,2-Trichloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Dibromochloromethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,3-Dichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dibromoethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2-Hexanone	ND		10.0		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Ethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Chlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
m,p-Xylene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
o-Xylene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Styrene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromoform	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13L0102-BLK1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Isopropylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
n-Propylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Bromobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
2-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,3-Trichloropropane	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
trans-1,4-Dichloro-2-butene	ND		0.100		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
4-Chlorotoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
tert-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
sec-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
p-Isopropyltoluene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,3-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,4-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
n-Butylbenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Hexachlorobutadiene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Naphthalene	ND		2.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/l		12/19/13 09:30	12/19/13 11:49	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*
Dibromofluoromethane	*103*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13L0102-BLK1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13L0102_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-dichloroethane-d4	98.7		70 - 140	12/19/13 09:30	12/19/13 11:49	1.00
1,2-dichloroethane-d4	98.7		70 - 140	12/19/13 09:30	12/19/13 11:49	1.00
Toluene-d8	99.3		74.1 - 135	12/19/13 09:30	12/19/13 11:49	1.00
Toluene-d8	99.3		74.1 - 135	12/19/13 09:30	12/19/13 11:49	1.00
4-bromofluorobenzene	102		68.7 - 141	12/19/13 09:30	12/19/13 11:49	1.00
4-bromofluorobenzene	102		68.7 - 141	12/19/13 09:30	12/19/13 11:49	1.00

Lab Sample ID: 13L0102-BS1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	8.59		ug/l		85.9	60 - 140
Dichlorodifluoromethane	10.0	8.59		ug/l		85.9	60 - 140
Chloromethane	10.0	8.79		ug/l		87.9	60 - 140
Chloromethane	10.0	8.79		ug/l		87.9	60 - 140
Vinyl chloride	10.0	9.58		ug/l		95.8	60 - 140
Vinyl chloride	10.0	9.58		ug/l		95.8	60 - 140
Bromomethane	10.0	9.56		ug/l		95.6	60 - 140
Bromomethane	10.0	9.56		ug/l		95.6	60 - 140
1,3-Butadiene	10.0	8.55		ug/l		85.5	60 - 140
1,3-Butadiene	10.0	8.55		ug/l		85.5	60 - 140
Chloroethane	10.0	9.91		ug/l		99.1	60 - 140
Chloroethane	10.0	9.91		ug/l		99.1	60 - 140
Trichlorofluoromethane	10.0	10.9		ug/l		109	60 - 140
Trichlorofluoromethane	10.0	10.9		ug/l		109	60 - 140
1,1-Dichloroethene	10.0	9.90		ug/l		99.0	78.1 - 155
1,1-Dichloroethene	10.0	9.90		ug/l		99.0	78.1 - 155
Dichlorofluoromethane	10.0	10.9		ug/l		109	60 - 140
Dichlorofluoromethane	10.0	10.9		ug/l		109	60 - 140
Carbon disulfide	10.0	9.23		ug/l		92.3	60 - 140
Carbon disulfide	10.0	9.23		ug/l		92.3	60 - 140
Methylene chloride	10.0	11.0		ug/l		110	60 - 140
Methylene chloride	10.0	11.0		ug/l		110	60 - 140
Acetone	50.0	47.9		ug/l		95.7	60 - 140
Acetone	50.0	47.9		ug/l		95.7	60 - 140
Ethyl ether	10.0	10.0		ug/l		100	60 - 140
Ethyl ether	10.0	10.0		ug/l		100	60 - 140
trans-1,2-Dichloroethene	10.0	10.3		ug/l		103	60 - 140
trans-1,2-Dichloroethene	10.0	10.3		ug/l		103	60 - 140
Methyl tert-butyl ether	10.0	10.6		ug/l		106	80.1 - 128
Methyl tert-butyl ether	10.0	10.6		ug/l		106	80.1 - 128
1,1,2-Trichlorotrifluoroethane	10.0	10.0		ug/l		100	60 - 140
1,1,2-Trichlorotrifluoroethane	10.0	10.0		ug/l		100	60 - 140
1,1-Dichloroethane	10.0	11.0		ug/l		110	60 - 140
1,1-Dichloroethane	10.0	11.0		ug/l		110	60 - 140
cis-1,2-Dichloroethene	10.0	10.9		ug/l		109	60 - 140
cis-1,2-Dichloroethene	10.0	10.9		ug/l		109	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13L0102-BS1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	10.0	11.2		ug/l		112	60 - 140
2,2-Dichloropropane	10.0	11.2		ug/l		112	60 - 140
Iodomethane	10.0	10.8		ug/l		108	60 - 140
Iodomethane	10.0	10.8		ug/l		108	60 - 140
Allyl chloride	10.0	9.11		ug/l		91.1	60 - 140
Allyl chloride	10.0	9.11		ug/l		91.1	60 - 140
Bromochloromethane	10.0	11.5		ug/l		115	60 - 140
Bromochloromethane	10.0	11.5		ug/l		115	60 - 140
Chloroform	10.0	11.1		ug/l		111	60 - 140
Chloroform	10.0	11.1		ug/l		111	60 - 140
Carbon tetrachloride	10.0	11.0		ug/l		110	60 - 140
Carbon tetrachloride	10.0	11.0		ug/l		110	60 - 140
1,1,1-Trichloroethane	10.0	10.6		ug/l		106	60 - 140
1,1,1-Trichloroethane	10.0	10.6		ug/l		106	60 - 140
Methyl acetate	50.0	47.0		ug/l		93.9	60 - 140
Methyl acetate	50.0	47.0		ug/l		93.9	60 - 140
2-Butanone	50.0	45.2		ug/l		90.4	60 - 140
2-Butanone	50.0	45.2		ug/l		90.4	60 - 140
n-Hexane	10.0	10.1		ug/l		101	60 - 140
n-Hexane	10.0	10.1		ug/l		101	60 - 140
1,1-Dichloropropene	10.0	11.2		ug/l		112	60 - 140
1,1-Dichloropropene	10.0	11.2		ug/l		112	60 - 140
Benzene	10.0	10.5		ug/l		105	80 - 122
Benzene	10.0	10.5		ug/l		105	80 - 122
tert-Butanol	100	99.2		ug/l		99.2	60 - 140
tert-Butanol	100	99.2		ug/l		99.2	60 - 140
1,2-Dichloroethane (EDC)	10.0	10.3		ug/l		103	63.9 - 144
1,2-Dichloroethane (EDC)	10.0	10.3		ug/l		103	63.9 - 144
Trichloroethene	10.0	10.6		ug/l		106	74.8 - 123
Trichloroethene	10.0	10.6		ug/l		106	74.8 - 123
Acrylonitrile	100	101		ug/l		101	60 - 140
Acrylonitrile	100	101		ug/l		101	60 - 140
Dibromomethane	10.0	9.85		ug/l		98.5	60 - 140
Dibromomethane	10.0	9.85		ug/l		98.5	60 - 140
1,2-Dichloropropane	10.0	10.5		ug/l		105	60 - 140
1,2-Dichloropropane	10.0	10.5		ug/l		105	60 - 140
Bromodichloromethane	10.0	10.7		ug/l		107	60 - 140
Bromodichloromethane	10.0	10.7		ug/l		107	60 - 140
cis-1,3-Dichloropropene	10.0	10.6		ug/l		106	60 - 140
cis-1,3-Dichloropropene	10.0	10.6		ug/l		106	60 - 140
Toluene	10.0	9.35		ug/l		93.5	80 - 123
Toluene	10.0	9.35		ug/l		93.5	80 - 123
4-Methyl-2-pentanone	50.0	44.8		ug/l		89.7	60 - 140
4-Methyl-2-pentanone	50.0	44.8		ug/l		89.7	60 - 140
Cyclohexane	10.0	10.0		ug/l		100	60 - 140
Cyclohexane	10.0	10.0		ug/l		100	60 - 140
trans-1,3-Dichloropropene	10.0	10.8		ug/l		108	60 - 140
trans-1,3-Dichloropropene	10.0	10.8		ug/l		108	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13L0102-BS1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	10.0	8.92		ug/l		89.2	60 - 140
Tetrachloroethene	10.0	8.92		ug/l		89.2	60 - 140
Tetrahydrofuran	20.0	13.8		ug/l		68.8	60 - 140
Tetrahydrofuran	20.0	13.8		ug/l		68.8	60 - 140
1,1,2-Trichloroethane	10.0	9.15		ug/l		91.5	60 - 140
1,1,2-Trichloroethane	10.0	9.15		ug/l		91.5	60 - 140
Dibromochloromethane	10.0	9.22		ug/l		92.2	60 - 140
Dibromochloromethane	10.0	9.22		ug/l		92.2	60 - 140
1,3-Dichloropropane	10.0	9.22		ug/l		92.2	60 - 140
1,3-Dichloropropane	10.0	9.22		ug/l		92.2	60 - 140
1,2-Dibromoethane	10.0	8.77		ug/l		87.7	70 - 130
1,2-Dibromoethane	10.0	8.77		ug/l		87.7	70 - 130
2-Hexanone	50.0	39.3		ug/l		78.6	60 - 140
2-Hexanone	50.0	39.3		ug/l		78.6	60 - 140
n-Heptane	10.0	9.72		ug/l		97.2	60 - 140
n-Heptane	10.0	9.72		ug/l		97.2	60 - 140
Ethylbenzene	10.0	9.70		ug/l		97.0	80 - 120
Ethylbenzene	10.0	9.70		ug/l		97.0	80 - 120
Isobutanol	250	217		ug/l		86.6	60 - 140
Isobutanol	250	217		ug/l		86.6	60 - 140
Chlorobenzene	10.0	9.57		ug/l		95.7	79.2 - 125
Chlorobenzene	10.0	9.57		ug/l		95.7	79.2 - 125
1,1,1,2-Tetrachloroethane	10.0	9.72		ug/l		97.2	60 - 140
1,1,1,2-Tetrachloroethane	10.0	9.72		ug/l		97.2	60 - 140
m,p-Xylene	10.0	9.86		ug/l		98.6	80 - 120
m,p-Xylene	10.0	9.86		ug/l		98.6	80 - 120
o-Xylene	10.0	10.2		ug/l		102	80 - 120
o-Xylene	10.0	10.2		ug/l		102	80 - 120
Methylcyclohexane	10.0	9.85		ug/l		98.5	60 - 140
Methylcyclohexane	10.0	9.85		ug/l		98.5	60 - 140
Styrene	10.0	9.74		ug/l		97.4	60 - 140
Styrene	10.0	9.74		ug/l		97.4	60 - 140
Bromoform	10.0	8.78		ug/l		87.8	60 - 140
Bromoform	10.0	8.78		ug/l		87.8	60 - 140
Isopropylbenzene	10.0	9.76		ug/l		97.6	60 - 140
Isopropylbenzene	10.0	9.76		ug/l		97.6	60 - 140
n-Propylbenzene	10.0	10.3		ug/l		103	60 - 140
n-Propylbenzene	10.0	10.3		ug/l		103	60 - 140
1,1,2,2-Tetrachloroethane	10.0	9.63		ug/l		96.3	60 - 140
1,1,2,2-Tetrachloroethane	10.0	9.63		ug/l		96.3	60 - 140
Bromobenzene	10.0	10.2		ug/l		102	60 - 140
Bromobenzene	10.0	10.2		ug/l		102	60 - 140
1,3,5-Trimethylbenzene	10.0	10.0		ug/l		100	60 - 140
1,3,5-Trimethylbenzene	10.0	10.0		ug/l		100	60 - 140
2-Chlorotoluene	10.0	10.3		ug/l		103	60 - 140
2-Chlorotoluene	10.0	10.3		ug/l		103	60 - 140
1,2,3-Trichloropropane	10.0	10.5		ug/l		105	60 - 140
1,2,3-Trichloropropane	10.0	10.5		ug/l		105	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 13L0102-BS1
Matrix: Water
Analysis Batch: 13L0102

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0102_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,4-Dichloro-2-butene	10.0	10.2		ug/l		102	60 - 140
trans-1,4-Dichloro-2-butene	10.0	10.2		ug/l		102	60 - 140
4-Chlorotoluene	10.0	10.5		ug/l		105	60 - 140
4-Chlorotoluene	10.0	10.5		ug/l		105	60 - 140
tert-Butylbenzene	10.0	9.45		ug/l		94.5	60 - 140
tert-Butylbenzene	10.0	9.45		ug/l		94.5	60 - 140
1,2,4-Trimethylbenzene	10.0	10.2		ug/l		102	60 - 140
1,2,4-Trimethylbenzene	10.0	10.2		ug/l		102	60 - 140
Ethyl methacrylate	10.0	8.01		ug/l		80.1	60 - 140
Ethyl methacrylate	10.0	8.01		ug/l		80.1	60 - 140
sec-Butylbenzene	10.0	10.2		ug/l		102	60 - 140
sec-Butylbenzene	10.0	10.2		ug/l		102	60 - 140
p-Isopropyltoluene	10.0	10.2		ug/l		102	60 - 140
p-Isopropyltoluene	10.0	10.2		ug/l		102	60 - 140
1,3-Dichlorobenzene	10.0	10.1		ug/l		101	60 - 140
1,3-Dichlorobenzene	10.0	10.1		ug/l		101	60 - 140
1,4-Dichlorobenzene	10.0	10.0		ug/l		100	60 - 140
1,4-Dichlorobenzene	10.0	10.0		ug/l		100	60 - 140
n-Butylbenzene	10.0	10.2		ug/l		102	60 - 140
n-Butylbenzene	10.0	10.2		ug/l		102	60 - 140
1,2-Dichlorobenzene	10.0	9.83		ug/l		98.3	60 - 140
1,2-Dichlorobenzene	10.0	9.83		ug/l		98.3	60 - 140
1,2-Dibromo-3-chloropropane	10.0	9.27		ug/l		92.7	60 - 140
1,2-Dibromo-3-chloropropane	10.0	9.27		ug/l		92.7	60 - 140
Hexachlorobutadiene	10.0	9.27		ug/l		92.7	60 - 140
Hexachlorobutadiene	10.0	9.27		ug/l		92.7	60 - 140
1,2,4-Trichlorobenzene	10.0	8.17		ug/l		81.7	60 - 140
1,2,4-Trichlorobenzene	10.0	8.17		ug/l		81.7	60 - 140
Naphthalene	10.0	7.56		ug/l		75.6	62.8 - 132
Naphthalene	10.0	7.56		ug/l		75.6	62.8 - 132
1,2,3-Trichlorobenzene	10.0	7.65		ug/l		76.5	60 - 140
1,2,3-Trichlorobenzene	10.0	7.65		ug/l		76.5	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*106*		*71.2 - 143*
Dibromofluoromethane	*106*		*71.2 - 143*
1,2-dichloroethane-d4	*103*		*70 - 140*
1,2-dichloroethane-d4	*103*		*70 - 140*
Toluene-d8	*93.3*		*74.1 - 135*
Toluene-d8	*93.3*		*74.1 - 135*
4-bromofluorobenzene	*102*		*68.7 - 141*
4-bromofluorobenzene	*102*		*68.7 - 141*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 13L0102-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0102 — **Prep Batch: 13L0102_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 11:49	1.00
Gasoline Range Hydrocarbons	ND		100		ug/l		12/19/13 09:30	12/19/13 11:49	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*
Dibromofluoromethane	*103*		*71.2 - 143*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*
Toluene-d8	*99.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*
Toluene-d8	*99.3*		*74.1 - 135*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*
4-bromofluorobenzene	*102*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*
4-bromofluorobenzene	*102*		*68.7 - 141*	*12/19/13 09:30*	*12/19/13 11:49*	*1.00*

Lab Sample ID: 13L0102-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0102 — **Prep Batch: 13L0102_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	1000	1060		ug/l		106	80 - 120
Gasoline Range Hydrocarbons	1000	1060		ug/l		106	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*99.6*		*71.2 - 143*
Dibromofluoromethane	*99.6*		*71.2 - 143*
Toluene-d8	*98.3*		*74.1 - 135*
Toluene-d8	*98.3*		*74.1 - 135*
4-bromofluorobenzene	*104*		*68.7 - 141*
4-bromofluorobenzene	*104*		*68.7 - 141*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 13L0116-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0116 — **Prep Batch: 13L0116_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/l		12/20/13 10:10	12/20/13 15:34	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/l		12/20/13 10:10	12/20/13 15:34	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*61.9*		*50 - 150*	*12/20/13 10:10*	*12/20/13 15:34*	*1.00*
n-Triacontane-d62	*59.8*		*50 - 150*	*12/20/13 10:10*	*12/20/13 15:34*	*1.00*

Lab Sample ID: 13L0116-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0116 — **Prep Batch: 13L0116_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	3.20	1.90		mg/l		59.3	54.5 - 136

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 13L0116-BS1
Matrix: Water
Analysis Batch: 13L0116

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0116_P

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FBP	*60.8*		*50 - 150*
n-Triacontane-d62	*60.8*		*50 - 150*

Lab Sample ID: 13L0128-BLK1
Matrix: Water
Analysis Batch: 13L0128

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13L0128_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/l		12/26/13 09:24	12/26/13 17:07	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/l		12/26/13 09:24	12/26/13 17:07	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-FBP	*56.2*		*50 - 150*	*12/26/13 09:24*	*12/26/13 17:07*	*1.00*
n-Triacontane-d62	*80.1*		*50 - 150*	*12/26/13 09:24*	*12/26/13 17:07*	*1.00*

Lab Sample ID: 13L0128-BS1
Matrix: Water
Analysis Batch: 13L0128

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0128_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	1.88		mg/l		58.7	54.5 - 136		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FBP	*55.5*		*50 - 150*
n-Triacontane-d62	*72.8*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-151430/23-A
Matrix: Water
Analysis Batch: 151527

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 151430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010		mg/L		12/30/13 10:48	12/31/13 13:26	1
Chromium	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 13:26	1
Lead	ND		0.00040		mg/L		12/30/13 10:48	12/31/13 13:26	1

Lab Sample ID: LCS 580-151430/24-A
Matrix: Water
Analysis Batch: 151527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 151430

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			0.100	0.0980		mg/L		98	80 - 120		
Chromium			0.100	0.0938		mg/L		94	80 - 120		
Lead			0.100	0.0953		mg/L		95	80 - 120		

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-151430/25-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151527 — **Prep Batch: 151430**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.0984		mg/L		98	80 - 120	0	20
Chromium	0.100	0.0950		mg/L		95	80 - 120	1	20
Lead	0.100	0.0946		mg/L		95	80 - 120	1	20

Lab Sample ID: 580-41724-1 MS — **Client Sample ID: SWL0096-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151527 — **Prep Batch: 151430**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0010		0.100	0.0965		mg/L		95	80 - 120
Chromium	ND		0.100	0.0905		mg/L		90	80 - 120
Lead	ND		0.100	0.0954		mg/L		95	80 - 120

Lab Sample ID: 580-41724-1 MSD — **Client Sample ID: SWL0096-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151527 — **Prep Batch: 151430**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0010		0.100	0.0945		mg/L		93	80 - 120	2	20
Chromium	ND		0.100	0.0897		mg/L		90	80 - 120	1	20
Lead	ND		0.100	0.0930		mg/L		93	80 - 120	3	20

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods

Lab Sample ID: 13L0144-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 13L0144 — **Prep Batch: 13L0144_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	MNR3	0.0300		mg/l		12/30/13 10:52	01/03/14 12:12	1.00
Manganese	ND	MNR3	0.0100		mg/l		12/30/13 10:52	01/03/14 12:12	1.00

Lab Sample ID: 13L0144-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 13L0144 — **Prep Batch: 13L0144_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	0.982	MNR3	mg/l		98.2	85 - 115
Manganese	1.00	0.996	MNR3	mg/l		99.6	85 - 115

Lab Sample ID: 13L0144-MS1 — **Client Sample ID: MW-6-121713**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 13L0144 — **Prep Batch: 13L0144_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	ND	MNR3	1.00	0.987	MNR3	mg/l		98.7	75 - 125
Manganese	1.33	MNR3	1.00	2.28	MNR3	mg/l		95.8	75 - 125

Method: EPA 200.7 - Dissolved Metals by EPA 200 Series Methods (Continued)

Lab Sample ID: 13L0144-DUP1 — **Client Sample ID: MW-6-121713**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 13L0144 — **Prep Batch: 13L0144_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Iron	ND	MNR3	ND	MNR3	mg/l			20
Manganese	1.33	MNR3	1.34	MNR3	mg/l		0.809	20

Lab Sample ID: 14A0017-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14A0017 — **Prep Batch: 14A0017_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.0300		mg/l		01/06/14 15:31	01/07/14 15:11	1.00
Manganese	0.0106	B	0.0100		mg/l		01/06/14 15:31	01/07/14 15:11	1.00

Lab Sample ID: 14A0017-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14A0017 — **Prep Batch: 14A0017_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	0.980		mg/l		98.0	85 - 115
Manganese	1.00	1.00		mg/l		100	85 - 115

Lab Sample ID: 14A0017-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14A0017 — **Prep Batch: 14A0017_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	ND		1.00	1.03		mg/l		103	75 - 125
Manganese	ND		1.00	0.996		mg/l		99.6	75 - 125

Lab Sample ID: 14A0017-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14A0017 — **Prep Batch: 14A0017_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	ND		1.00	1.03		mg/l		103	75 - 125	0.521	20
Manganese	ND		1.00	0.996		mg/l		99.6	75 - 125	0.0292	20

Lab Sample ID: 14A0017-DUP1 — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 14A0017 — **Prep Batch: 14A0017_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Iron	ND		ND		mg/l			20
Manganese	ND		ND		mg/l			20

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 13L0101-BLK1
Matrix: Water
Analysis Batch: 13L0101

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13L0101_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		12/19/13 08:30	12/19/13 12:46	1.00
Nitrate-Nitrogen	ND		0.200		mg/l		12/19/13 08:30	12/19/13 12:46	1.00
Sulfate	ND		0.500		mg/l		12/19/13 08:30	12/19/13 12:46	1.00
Sulfate	ND		0.500		mg/l		12/19/13 08:30	12/19/13 12:46	1.00

Lab Sample ID: 13L0101-BS1
Matrix: Water
Analysis Batch: 13L0101

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13L0101_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.67		mg/l		93.4	90 - 110
Nitrate-Nitrogen	5.00	4.67		mg/l		93.4	90 - 110
Sulfate	12.5	12.1		mg/l		96.5	90 - 110
Sulfate	12.5	12.1		mg/l		96.5	90 - 110

Lab Sample ID: 13L0101-MS1
Matrix: Water
Analysis Batch: 13L0101

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 13L0101_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	ND		5.00	4.86		mg/l		97.2	80 - 120
Nitrate-Nitrogen	ND		5.00	4.86		mg/l		97.2	80 - 120
Sulfate	43.8		12.5	49.6	A-01 M8	mg/l		45.9	80 - 120
Sulfate	43.8		12.5	49.6	A-01 M8	mg/l		45.9	80 - 120

Lab Sample ID: 13L0101-MSD1
Matrix: Water
Analysis Batch: 13L0101

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 13L0101_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	ND		5.00	4.88		mg/l		97.6	80 - 120	0.411	12.1
Nitrate-Nitrogen	ND		5.00	4.88		mg/l		97.6	80 - 120	0.411	12.1
Sulfate	43.8		12.5	49.5	A-01 M8	mg/l		45.4	80 - 120	0.121	10
Sulfate	43.8		12.5	49.5	A-01 M8	mg/l		45.4	80 - 120	0.121	10

Lab Sample ID: 13L0101-DUP1
Matrix: Water
Analysis Batch: 13L0101

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 13L0101_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	ND		0.140		mg/l			13.1
Nitrate-Nitrogen	ND		0.140		mg/l			13.1
Sulfate	43.8		44.1	A-01	mg/l		0.523	15.7
Sulfate	43.8		44.1	A-01	mg/l		0.523	15.7

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Lab Sample ID: 13L0150-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0150 — **Prep Batch: 13L0150_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00
Total Alkalinity	ND		4.00		mg/l		12/31/13 09:06	12/31/13 16:46	1.00

Lab Sample ID: 13L0150-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0150 — **Prep Batch: 13L0150_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity	500	475		mg/l		95.0	90 - 110
Total Alkalinity	500	475		mg/l		95.0	90 - 110

Lab Sample ID: 13L0150-DUP1 — **Client Sample ID: MW-6-121713**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 13L0150 — **Prep Batch: 13L0150_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	325		330		mg/l		1.53	10
Total Alkalinity	325		330		mg/l		1.53	10

Client Sample ID: MW-6-121713

Lab Sample ID: SWL0096-01

Date Collected: 12/17/13 10:14

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 14:16	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 14:16	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.989	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 16:19	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:22	FCW	TAL SEA
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:14	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13L0101	12/19/13 08:45	CBW	TAL SPK

Client Sample ID: MW-5-121713

Lab Sample ID: SWL0096-02

Date Collected: 12/17/13 11:19

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 14:39	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 14:39	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		1.01	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 16:42	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:02	FCW	TAL SEA
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:21	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13L0101	12/19/13 09:26	CBW	TAL SPK

Client Sample ID: MW-22-121713

Lab Sample ID: SWL0096-03

Date Collected: 12/17/13 10:38

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 15:03	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 15:03	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.983	13L0116_P	12/20/13 10:10	MS	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-22-121713

Lab Sample ID: SWL0096-03

Date Collected: 12/17/13 10:38

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 17:04	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:07	FCW	TAL SEA
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:23	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13L0101	12/19/13 09:06	CBW	TAL SPK

Client Sample ID: MW-23-121713

Lab Sample ID: SWL0096-04

Date Collected: 12/17/13 11:54

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 15:26	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 15:26	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.980	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 17:26	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:37	FCW	TAL SEA
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:25	ICP	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		2.00	13L0101	12/19/13 09:47	CBW	TAL SPK

Client Sample ID: MW-24-121713

Lab Sample ID: SWL0096-05

Date Collected: 12/17/13 12:28

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 15:49	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 15:49	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		1.02	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 17:48	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:42	FCW	TAL SEA
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:27	ICP	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-24-121713

Lab Sample ID: SWL0096-05

Date Collected: 12/17/13 12:28

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		2.00	13L0101	12/19/13 10:07	CBW	TAL SPK

Client Sample ID: MW-9-121713

Lab Sample ID: SWL0096-06

Date Collected: 12/17/13 13:58

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 16:12	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 16:12	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.976	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 18:09	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:46	FCW	TAL SEA
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:33	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		2.00	13L0101	12/19/13 10:28	CBW	TAL SPK

Client Sample ID: Duplicate-1-121713

Lab Sample ID: SWL0096-07

Date Collected: 12/17/13 12:34

Matrix: Water

Date Received: 12/19/13 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 16:36	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 16:36	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		1.02	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 18:31	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:51	FCW	TAL SEA
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:36	ICP	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		2.00	13L0101	12/19/13 10:49	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Client Sample ID: MW-7-121713

Date Collected: 12/17/13 12:45
Date Received: 12/19/13 08:20

Lab Sample ID: SWL0096-08

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 16:59	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 16:59	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.988	13L0116_P	12/20/13 10:10	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0116	12/20/13 18:53	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 20:56	FCW	TAL SEA
Dissolved	Analysis	EPA 200.7		1.00	13L0144	01/03/14 12:38	ICP	TAL SPK
Dissolved	Prep	EPA 3005A		1.00	13L0144_P	12/30/13 10:52	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 08:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13L0101	12/19/13 11:48	CBW	TAL SPK

Client Sample ID: MW-25-121813

Date Collected: 12/18/13 12:47
Date Received: 12/19/13 11:20

Lab Sample ID: SWL0107-01

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Gx		1.00	13L0102	12/19/13 21:15	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	13L0102_P	12/19/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	13L0102	12/19/13 21:15	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.972	13L0128_P	12/26/13 09:24	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	13L0128	12/26/13 21:35	MRS	TAL SPK
Total/NA	Prep	200.8			151430	12/30/13 10:48	PAB	TAL SEA
Total/NA	Analysis	200.8		1	151527	12/31/13 19:28	FCW	TAL SEA
Dissolved	Prep	EPA 3005A		1.00	14A0017_P	01/06/14 15:31	JSP	TAL SPK
Dissolved	Analysis	EPA 200.7		1.00	14A0017	01/07/14 15:24	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	13L0150_P	12/31/13 09:06	JSP	TAL SPK
Total	Analysis	SM 2320B		1.00	13L0150	12/31/13 16:46	JSP	TAL SPK
Total	Analysis	EPA 300.0		1.00	13L0101	12/19/13 14:45	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	13L0101_P	12/19/13 12:54	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13L0101	12/20/13 10:45	CBW	TAL SPK

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-14

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-060-02

TestAmerica Job ID: SWL0096

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
200.8	Metals (ICP/MS)	EPA	TAL SEA
EPA 200.7	Dissolved Metals by EPA 200 Series Methods		TAL SPK
EPA 300.0	Anions by EPA Method 300.0		TAL SPK
SM 2320B	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: 580000916

CLIENT: GeoEngineers INC

REPORT TO: dlauder@geoengineers.com
ADDRESS: DAVE LAUDER

PHONE: 5093633125 FAX:

INVOICE TO: ← same as

P.O. NUMBER:

PROJECT NAME: ROBYS

PROJECT NUMBER: 0504-060-02

SAMPLED BY: ERH/MOF

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: [X] STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: [X] STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: NWTPH-Gx	NWTPH-Dx	VOCs EPA 8260	arsenic*, chromium, lead	Sol. iron* Sol. mang	Alkalinity SM 2320B	Nitrates Sulfate EPA 300	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 MW-6-121713	12/17/13 1014		✓	✓	✓	✓	✓	✓	✓	W	6		
2 MW-5-121713	1119		✓	✓	✓	✓	✓	✓	✓	W			
3 MW-22-121713	1038		✓	✓	✓	✓	✓	✓	✓	W			
4 MW-23-121713	1154		✓	✓	✓	✓	✓	✓	✓	W			
5 MW-24-121713	1228		✓	✓	✓	✓	✓	✓	✓	W			
6 MW-9-121713	1358		✓	✓	✓	✓	✓	✓	✓	W			
7 DUPLICATE-1-121713	1234		✓	✓	✓	✓	✓	✓	✓	W			
8 MW-7-121713	1245		✓	✓	✓	✓	✓	✓	✓	W			
9													
10													

RELEASED BY: PRINT NAME: Elyse Hogan FIRM: GeoEngineers DATE: 12/17/2013 TIME:
RECEIVED BY: PRINT NAME: Dina Heilman FIRM: FedEx DATE: 12/17/13 TIME: 17:53
RELEASED BY: PRINT NAME: FIRM: DATE: TIME:
RECEIVED BY: PRINT NAME: Kandis Boke FIRM: TestAmerica DATE: 12/18/13 TIME: 0820

ADDITIONAL REMARKS: * Perform by EPA 200 series (where *); Nitrate has 48 hr hold time

TEMP: 2.9° PAGE 1 OF 1

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #:	Client: Groth Engineers	Project: Rotary
Date/Time Received: 12/19/13 0830 HSS	By: RD	
Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Client ☐ Other:		
List Air Bill Number(s) or Attach a photocopy of the Air Bill: 8037 0810 5278		

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	X			
Custody Seals are present and intact:		X		
Are CoC documents present:	X			
Necessary signatures:	X			

Thermal Preservation Type: ☐ Blue Ice ☐ Gel Ice ☒ Real Ice ☐ Dry Ice ☐ None ☐ Other:

Temperature: 2.4 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐ Not enough ice ☐ Ice melted ☐ w/in 4hrs of collection ☐ NA ☐ Other:

Log-In Phase Date/Time: 12/19/13 0824 By: RD	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)	X			
Are dissolved parameters field filtered		X		
Do any samples need to be filtered or preserved by the lab	X			
Does this project require quick turnaround analysis		X		
Are there any short hold time tests (see chart below)	X			NO3
Are any samples within 2 days of or past expiration	X			
Was the CoC scanned	X			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated #			X	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SWL0107

CLIENT: GEI

REPORT TO: DAVE LAUNDER

ADDRESS: dlaunder@geoengineers.com

PHONE: 5093633125 FAX:

INVOICE TO: same as

P.O. NUMBER:

PROJECT NAME: ROBYS

PROJECT NUMBER: 0504-060-02

SAMPLED BY: ERH/MJP

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: ~~5~~ STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: Nitrate-N (EPA-300.0)	Nitrite-N (EPA-300.0)	VOCs (EPA-8260B)	Ni, Cr, Pb (6010B, EPA-200.8)	Sol. Fe & Mn (EPA-200.7)	Sulfate & Nitrate (EPA-300.0)	Aluminum (SM 3120B)	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 MW-25-121813	12/18/2013 1247		✓	✓	✓	✓	✓	✓	✓	W	6		
2													
3													
4													
5													
6													
7													
8													
9													
10													

RELEASED BY:		DATE: 12/19/13	RECEIVED BY:		DATE: 12/18/13
PRINT NAME: Elizabeth Hogan	FIRM: GeoEngineers	TIME: 1439	PRINT NAME: Elizabeth McKenna	FIRM: FedEx	TIME: 1429
RELEASED BY:		DATE:	RECEIVED BY: Cat Stapleton		DATE: 12/19/13
PRINT NAME:	FIRM:	TIME:	PRINT NAME: Cat Stapleton	FIRM: TestAmerica	TIME: 1120

ADDITIONAL REMARKS: Nitrate hold time: 48 hrs; pls call ERH w/any questions about tests written here

TEMP: 33 PAGE 1 OF 1

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SWL0107	Client: GeoEngineers	Project: Roby's
Date/Time Received: 12-19-13 11:20	By: CS	

Samples Delivered By: ☐Shipping Service ☐Courier ☐Client ☐Other: _____

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	X			
Custody Seals are present and intact:			X	
Are CoC documents present:	X			
Necessary signatures:	X			

Thermal Preservation Type: ☐Blue Ice ☐Gel Ice ☒Real Ice ☐Dry Ice ☐None ☐Other: _____

Temperature: 3.3 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐Not enough ice ☐Ice melted ☐w/in 4hrs of collection ☐NA ☐Other: _____

Log-In Phase Date/Time: 12-19-13 11:44 By: (J)	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)			X	
Are dissolved parameters field filtered			X	
Do any samples need to be filtered or preserved by the lab			X	
Does this project require quick turnaround analysis		X		
Are there any short hold time tests (see chart below)	X			Nitrate
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated #_____			X	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of the Washington State Department of Ecology (Ecology). This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Ecology should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for Roby's Station site located at the intersection of Buena Road and Burr Street in Buena, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of Ecology. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm and Ecology with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with Ecology and generally accepted environmental practices in this area at the time this report was prepared.

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[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

Environmental Regulations are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproductions are acceptable, but recognize that separating logs from the report can elevate risk.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations”

provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Geotechnical, Geologic and Geoenvironmental Reports Should Not be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If Ecology desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

Have we delivered World Class Client Service?

Please let us know by visiting **www.geoengineers.com/feedback**.

GeoEngineers

www.geoengineers.com

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