Soil Assessment

Jerry's Custom Mechanics
Richland, Washington

for
Washington State Department of Ecology

June 27, 2019

GeoEngineers
Earth Science + Technology

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523 East Second Avenue
Spokane, Washington 99202
509.363.3125

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Jerry's Custom Mechanics
Richland, Washington

File No. 0504-152-00

June 27, 2019

Prepared for:

Washington State Department of Ecology
Toxics Cleanup Program – Central Region Office
1250 West Alder Street
Union Gap, Washington 98903-0009

Attention: Jeff Newschwander

Prepared by:

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

Scott H. Lathen, PE
Environmental Engineer

Bruce D. Williams
Principal

JML:SHL:BDW:tjh

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1.0 INTRODUCTION

This report describes soil and groundwater assessment activities conducted at the former Jerry's Custom Mechanics site located in Richland, Washington (herein referred to as "site"). The approximate site location is shown in the attached Vicinity Map, Figure 1.

Site environmental activities are managed by the Washington State Department of Ecology (Ecology). This report describes field activities, observations and chemical analytical results associated with soil samples and a groundwater sample collected at the site. The purpose of the assessment activities described herein was to identify if remnant soil contamination associated with a former underground storage tank (UST) removal was present. Ecology will use the assessment results to conduct a Site Hazard Assessment (SHA), if necessary, or close the site.

2.0 SITE DESCRIPTION AND BACKGROUND

The former Jerry's Custom Mechanics site is located at 3695 West Van Giesen Street in Richland, Washington, as shown in Figure 1. The site is currently occupied by West Richland Auto Repair. The site generally is covered with gravel, asphalt and concrete surfaces.

The site formerly operated as Jerry's Custom Mechanics beginning in the 1980s. In 2005, groundwater inside an old well casing inside of the building on the property was observed to have a green sheen. A water sample was collected from the well and analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons (TPH), metals (including lead and chromium), and ethylene and propylene, components of antifreeze. Only chromium and lead were detected at concentrations greater than the Model Toxics Control Act (MTCA) Method A cleanup level in the groundwater sample collected from the well. Further review of historical uses of the property indicated a paint booth might have been constructed on the site. Two mechanic shops, one located on the site and the other located adjacent to the site, reportedly included paint booths that might have used lead chromate-based paints.

3.0 SCOPE OF SERVICES

To assess the potential extent of lead and chromium contaminants at the site, the following scope of services was implemented:

1. Prepared a Work Plan that included a Sampling Plan, Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP).
2. Coordinated underground utility locating using the State of Washington Utility Notification and Utilities Plus, LLC (Utilities Plus). Per state regulations, GeoEngineers mobilized to/from the site from Spokane to mark the proposed boring locations prior to initiating the locate request.
3. Mobilized to/from the site from Spokane, Washington to conduct the sampling event.
4. Conducted 1 day of subsurface assessment using direct-push drilling techniques provided by Environmental West Explorations, Inc. (Environmental West). The borings were advanced in the alley to depths from 14 to 16 feet below ground surface (bgs). Soil samples were collected from 4-foot intervals

using a continuous core sampler for field screening and potential chemical analysis. Soil samples were collected per procedures outlined in the Work Plan.

5. Observed and documented subsurface soil conditions. Field screening consisted of visual observation and soil testing with an X-ray fluorescence (XRF) device.
6. Collected a groundwater sample from a temporary groundwater sampling point installed into one of the borings.
7. Purged and sampled the well casing (if viable) using low-flow sampling techniques. During well purging activities, water quality parameters were measured and recorded including: pH, specific conductivity, dissolved oxygen, temperature, oxidation-reduction potential and turbidity. Groundwater samples were collected per procedures outlined in the Work Plan.
8. Backfilled borings with bentonite clay and surface completed with gravel.
9. Submitted at least one soil sample from each boring and one grab groundwater sample from a temporary well point to a qualified laboratory for chemical analysis. The soil sample with the greatest field screening indication of potential contamination or the closest sample collected above the groundwater interface was submitted for analysis. Soil and groundwater samples were submitted and analyzed for the following contaminants:
    a. Lead and chromium using EPA Method 200.8/6020A.
10. Drummed and labeled investigation-derived waste (IDW). Able Cleanup Technologies (ACT)was retained to profile and transport the IDW for disposal at Waste Management's Graham Road landfill. Based on the chemical analytical results the IDW does not designate as a hazardous waste.
11. Compared soil and groundwater chemical analytical results to MTCA Method A cleanup levels.
12. Prepared this site assessment report summarizing field and laboratory data, comparison of analytical results to MTCA, and provides recommendations.
13. Entered laboratory analytical data results into Ecology's Environmental Information Management (EIM) database.

4.0 FIELD ACTIVITIES

4.1. Direct-Push Soil Assessment

Site reconnaissance was coordinated with West Richland Auto Repair and occurred on April 22, 2019. During this visit, site access was assessed and soil borings were marked. A 4-inch steel well casing was present inside of the former Jerry's building. The well casing was capped with a paint can lid and there was a wooden obstruction approximately 9½ feet below top of casing (BTOC). An employee at the site mentioned that a pump was inside the casing and was removed about 8 years prior during construction of a hallway to connect the two buildings. The water level in the casing was measured at about 10 feet BTOC and the total depth was about 22 feet BTOC. GeoEngineers did not develop the well for sampling due to the obstruction and the well condition.

Field assessment activities were conducted on April 29, 2019. Site utilities, located near the boring locations, were identified and marked by a private utility locating subcontractor, Utilities Plus, prior to drilling. Drilling subcontractor, Environmental West, advanced three borings (GEI014-DP1 through GEI014-

DP3) using direct-push drilling methods. A summary of field screening results using the XRF is presented below in Table 1. The direct-push boring locations are summarized by the following:

- Soil boring GEI014-DP1 was drilled southwest of the former paint booth location to approximately 16 feet bgs. Soil from six depth locations were screened for chromium and lead using the XRF instrument. chromium and lead were not detected. Three soil samples were retained for potential laboratory chemical analysis.
- Soil boring GEI014-DP2 was drilled adjacent the southeast corner of the former paint booth location to approximately 16 feet bgs. Soil from six depth locations were screened for chromium and lead using the XRF instrument. XRF soil testing indicated that chromium was detected at 523 milligrams per kilogram (mg/kg) at the 5-foot depth. XRF soil testing indicated that lead was detected at 22, 12 and 28 mg/kg at the 1-, 5- and 9-foot depths, respectively. Three soil samples were retained for potential laboratory chemical analysis.
- Soil boring GEI014-DP3 was drilled east of the former paint booth location to approximately 14 feet bgs. DP3 was moved to the east due to underground and overhead utilities. Soil from six depth locations were screened for chromium and lead using the XRF instrument. Chromium was not detected from XRF soil testing. XRF soil testing indicated lead was detected at 20 mg/kg in the 9-foot depth. Three soil samples were retained for potential laboratory chemical analysis. A photograph of advancing boring DP3 is found in Figure 3.

XRF field test results are shown below:

TABLE 1. SUMMARY OF XRF TESTING (CHROMIUM AND LEAD)

Boring	Depth (feet)	Chromium (Cr)		Lead (Pb)	
		mg/kg	+/-	mg/kg	+/-
DP1	1	ND	<28	ND	<10
	1.5	ND	<175	ND	<11
	5	ND	<150	ND	<10
	7	ND	<125	ND	<11
	9	ND	<143	ND	<12
	10.5	ND	<59	ND	<10
DP2	1	ND	<210	**22**	**7**
	2	ND	<155	ND	<14
	5	**523**	**51**	**12**	**4**
	6	ND	<135	ND	<13
	9	ND	<158	**28**	**5**
	10	ND	<141	ND	<13
DP3	1	ND	<95	ND	<11
	2	ND	<118	ND	<11
	5	ND	<182	ND	<12
	6	ND	<199	ND	<16

Boring	Depth (feet)	Chromium (Cr)		Lead (Pb)	
		mg/kg	+/-	mg/kg	+/-
	9	ND	<143	**20**	**5**
	10	ND	<226	ND	<19

Notes: Samples tested using an Olympus Delta Pro x-ray fluorescence (XRF) instrument on April 29, 2019.
mg/kg = milligrams per kilogram; ND = analyte was not detected; +/- = instrument range
Bold indicates analyte was detected.

Environmental West backfilled each boring with bentonite and surface completed with gravel. Excess soil cuttings were placed in one 55-gallon steel drum, labeled and placed at a location approved by the property owner (depicted on Exploration Locations – Grab Groundwater, Figure 2). Boring logs associated with the borings are included in Appendix A.

4.2. Subsurface Conditions

Soil observed in the borings (GEI014-DP1, GEI014-DP2 and GEI014-DP3) consisted of brown fine gravel with sand and silt, brown sand and native brown gravel with sand with silt. Soil borings terminated between 14 and 16 feet bgs.

4.3. Groundwater Conditions and Sampling

Groundwater was observed in the borings at about 10½ feet bgs. Grab groundwater samples were not collected from DP1 and DP3 because XRF field screening did not indicate the presence of metals contamination. A grab groundwater sample was collected from a temporary sampling point installed into DP2. The temporary sampling point was installed by driving a stainless steel rod into DP2 and pulled the rod up to expose a stainless steel screen. Groundwater was pumped from the temporary sampling point using a peristaltic pump. Groundwater sampling procedures are found in Appendix A.

5.0 CHEMICAL ANALYTICAL RESULTS

5.1. Soil Chemical Analytical Results

Three soil samples, one from each boring, were submitted to TestAmerica for the chemical analyses described in "Section 3.0 Scope of Services." TestAmerica's laboratory reports are included in Appendix B; chemical analytical results are summarized and compared to MTCA Method A cleanup levels for unrestricted land use below and in Table 2.

- Chromium was detected in the soil samples tested at concentrations less than the MTCA Method A cleanup level (2,000 mg/kg).
- Lead was either not detected or detected at concentrations less than the MTCA Method A cleanup level (250 mg/kg) in the soil samples tested.

TABLE 2. SUMMARY OF CHEMICAL ANALYTICAL RESULTS – SOIL (CHROMIUM AND LEAD)[1]

Sample Identification	Date Sampled	Chromium (Cr) (mg/kg)[3]	Lead (Pb) (mg/kg)[3]
GEI014-DP1 (5-5.5')	4/29/2019	**130**	<2.0
GEI014-DP2 (5-5.5')	4/29/2019	**8.7**	**2.1**
GEI014-DP3 (9-9.5')	4/29/2019	**6.6**	<1.9
MTCA Method A Unrestricted CULs[2]		2,000	250

Notes:

[1]Samples analyzed by Eurofins TestAmerica Laboratories, Inc. (TestAmerica) located in Spokane Valley, Washington.

[2]Model Toxics Control Act (MTCA) Method A unrestricted land use cleanup levels (CUL).

[3]Metals (Chromium and Lead) analyzed using Environmental Protection Agency (EPA) Method 6010C.

mg/kg = milligrams per kilogram

Bold indicates analyte was detected.

5.2. Chemical Analytical Results (Groundwater)

One groundwater sample was submitted to TestAmerica for the chemical analyses described in "Section 3.0 Scope of Services." A photograph of well point sampling from boring GEI014-DP2 is depicted in Figure 3. Test America's laboratory reports are included in Appendix B; chemical analytical results are summarized and compared to MTCA Method A groundwater cleanup levels below and in Table 3.

- Chromium was detected in the groundwater sample (GEI014-DP2:042919) at a concentration [0.19 milligrams per liter (mg/L)] greater than the MTCA Method A cleanup level (0.05 mg/L).
- Lead was detected in the groundwater sample (GEI014-DP2:042919) at a concentration (0.028 mg/L) greater than the MTCA Method A cleanup level (0.015).

TABLE 3. SUMMARY OF CHEMICAL ANALYTICAL RESULTS – GROUNDWATER (CHROMIUM AND LEAD)[1]

Sample Identification	Date Sampled	Chromium (Cr) (mg/L)[3]	Lead (Pb) (mg/L)[3]
GEI014-DP2:042919	4/29/2019	0.19	0.028
MTCA Method A Unrestricted CULs[2]		0.05	0.015

Notes:

[1]Samples analyzed by TestAmerica located in Spokane Valley, Washington.

[2]MTCA Method A unrestricted land use cleanup levels (CUL).

[3]Metals (Chromium and Lead) analyzed using EPA Method 6010C.

mg/L = milligrams per liter

Red indicates analyte was detected at a concentration greater than MTCA Method A CUL.

6.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Soil assessment activities were conducted on April 29, 2019, at the former Jerry's Custom Mechanics site located at 3695 West Van Giesen Street in Richland, Washington.

Three soil samples were collected from the soil borings and submitted for analysis of chromium and lead; chromium and lead were not detected at concentrations greater than MTCA Method A unrestricted land use cleanup levels.

One groundwater sample was collected from a temporary groundwater sampling point installed in boring DP2. The groundwater sample contained chromium and lead at concentrations greater than MTCA Method A groundwater cleanup levels.

Based on these assessment results, soil contamination was not identified in soil borings. Additional assessment would be needed to establish the nature and extent of the groundwater contamination. We recommend installing groundwater monitoring wells for the site and establishing a groundwater monitoring program. The groundwater monitoring program would include sampling for both chromium (III) and (VI) to confirm the valence state of chromium in the groundwater. Fully developed monitoring wells will provide more accurate groundwater sample results than grab samples to establish the nature and extent of the groundwater contamination.

ACT picked up the IDW on June 17, 2019, for transport and disposal at Waste Management's Graham Road landfill. The accumulated IDW amounted to one, 55-gallon drum.

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.

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

8.0 REFERENCES

Washington Department of Ecology (Ecology). 2007. Summary Score Sheet for Jerry's Custom Mechanics. August 22, 2007.

FIGURES

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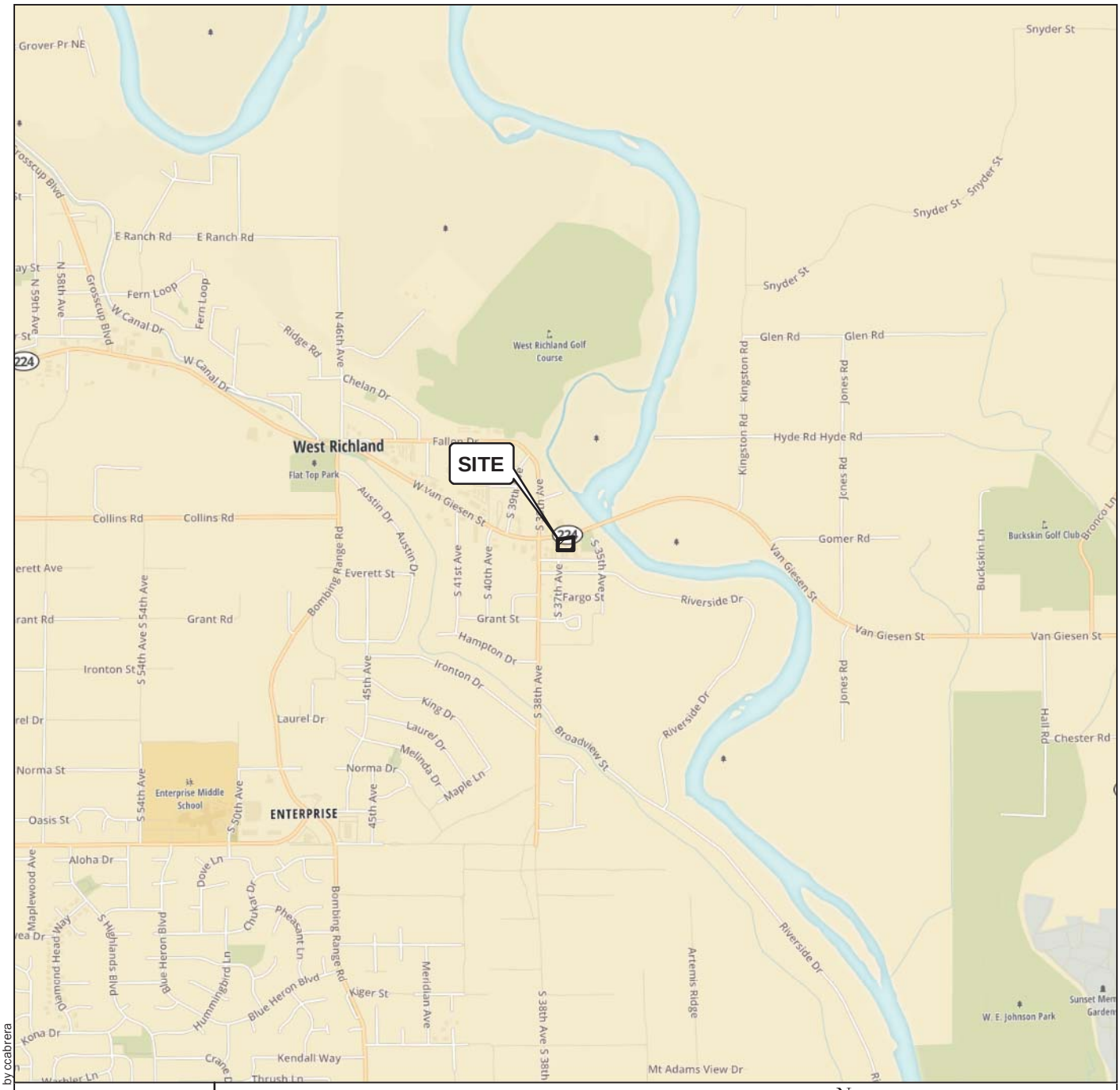

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Notes:

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

Data Source: Mapbox Open Street Map, 2016

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Vicinity Map

Jerrys Custom Mechanics
West Richland, Washington

GeoEngineers

Figure 1

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

Data Source: Clarity, ESRI.
Site boundary and street data from Benton County GIS.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Legend

- Direct Push Boring Number and Approximate Location
- Boring with Contaminants in Groundwater >MTCA Method A Unrestricted Land Use Cleanup Levels
- Direct Push Boring where Grab Groundwater Sample Collected
- Monitoring Well Number and Approximate Location
- IDW Storage Area
- Site Boundary

N W E S

30 0 30

Feet

Exploration Locations - Grab Groundwater

Jerry's Custom Mechanics
West Richland, Washington

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Figure 2

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Temporary well point sampling from boring GEI014-DP2 (view looking south).

Advancing boring location GEI014-DP3 (view looking east)

Site Photographs – April 29, 2019	
Jerry's Custom Mechanics West Richland, Washington	
GeoEngineers	Figure 3

APPENDICES

GeoEngineers

APPENDIX A
Field Procedures and Boring Logs

APPENDIX A
FIELD PROCEDURES AND BORING LOGS

General

Subsurface conditions at the Jerry's Custom Mechanics site were explored on April 29, 2019, by advancing three direct-push borings at the approximate locations shown on Figure 2. Borings were advanced between 14 and 16 feet below existing site grade and using a direct-push drill rig. Boring locations were established in the field using a site plan and measurements from on-site structures. Consequently, exploration locations should be considered accurate to the degree implied by the method used.

Field methods generally were performed in compliance with the project Work Plan assessment procedures.

Soil Sample Collection

Soil samples obtained during direct-push drilling were removed from the sleeve using clean nitrile gloves, and transferred into a laboratory prepared container, labeled with a waterproof pen, and placed on wet ice in a clean plastic-lined cooler.

Drilling operations were observed by GeoEngineers staff who examined and classified the soil encountered, obtained soil samples, and maintained a continuous exploration log. Soil encountered in the borings was classified in general accordance with ASTM International (ASTM) D 2488 and the classification chart listed in Key to Exploration Logs, Figure A-1. Boring logs are presented in Figures A-2 through A-4. The logs are based on field data interpretation and indicate the depth at which subsurface materials, or their characteristics change, although these changes might actually be gradual.

Field Screening of Soil Samples

GeoEngineers' field representative performed field-screening tests on soil samples obtained from the borings. Field screening results were used as a general guideline to assess areas of possible petroleum-related contamination. The field screening methods used include: (1) photoionization detector (PID) screening; (2) visual screening; (3) water-sheen screening; and (4) x-ray fluorescence (XRF) screening.

PID screening involves placing soil in a container and after agitating or warming, measuring total volatile organic compounds in the available head space. Visual screening consists of observing soil for stains indicative of metal- or petroleum-related contamination. Water-sheen screening involved placing soil in a pan of water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheens observed are classified as follows:

No Sheen (NS)	No visible sheen on the water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen (MS)	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Field screening results can be site specific. The effectiveness of field screening can vary with temperature, moisture content, organic content, soil type, and contaminant type and age.

XRF Screening

Field screening using XRF will be performed according to the manufacturer's instructions and EPA Method 6200 (EPA 2007), which includes:

- Choosing a convenient work surface. The surface should be free of material containing elements that may be detected by the analyzer.
- Homogenizing the sample by removing debris (non-native materials and wood) and gravel from the sample. Large material will be pulverized to homogenize the particle size of the sample as recommended in EPA Method 6200.
- Placing homogenized sample in a plastic bag and flattening the bag of soil to form a continuous uniform layer of at least 1 centimeter (0.4 inch) thick. The bag will be placed on the work surface (not held). The nose of the XRF will be against the bag. Printed labels or other marks on the bag will be avoided (these opaque areas often contain detectable elements, most notable titanium, and should will avoided when possible).
- Positioning the instrument against the surface of the bagged sample and initiating a reading by squeezing the shutter release and firmly pressing the instrument flat against the sample. The trigger and the proximity sensor must both be engaged before the shutter will open and the measurement initiated.
- Recording the metals results on a prepared field form. Soil type, moisture content, temperature and estimated grain size, also will be recorded.

Groundwater Sampling Procedures

A grab groundwater sample was collected from boring GEI014-DP2 on April 29, 2019.

Groundwater Depths

Depths to groundwater were not measured due to coarse material caving within the borings. Soil from the borings was wet at about 10½ feet bgs.

Grab Groundwater Samples

A grab groundwater sample was collected using a peristaltic pump with the tubing inserted into the drill casing of boring GEI014-DP2. The groundwater in the temporary casing was purged for about 15 minutes before sampling and allowing for turbidity (analyzed visually) to stabilize. Groundwater quality parameters (including pH, conductivity, temperature, turbidity, ORP and DO) were not measured due to a malfunctioning multi-parameter meter. Samples were collected in laboratory supplied sample containers.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE			GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

Key to Exploration Logs

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Figure A-1

Drilled Start 4/29/2019 End 4/29/2019	Total Depth (ft) 16	Logged By JML Checked By	Driller Environmental West Exploration	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data 2-inch Microcore		Drilling Equipment Geoprobe 5400	
Latitude 46° 17' 47.3892" Longitude -119° 20' 09.1104"		System Datum		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		24					SP	Brown fine to coarse sand with gravel and trace silt (medium dense, moist) (fill)			
									Brown fine to medium sand with trace silt (medium dense, moist) (fill)			
						GEI014-DP1 (1.5-2)		GP	Brown fine to coarse gravel with sand and trace silt (medium dense, moist) (native)			
			36									
	5					GEI014-DP1 (5-5.5) CA						
			30									
	10					GEI014-DP1 (10.5-11)						Groundwater observed at 10½ feet bgs at time of drilling
			22									
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring DP-1

GeoEngineers

Project: Jerry's Custom Mechanics
Project Location: West Richland, Washington
Project Number: 0504-152-00

Figure A-2
Sheet 1 of 1

Date:6/27/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0504152\GINT\0504152000.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 4/29/2019	End 4/29/2019	Total Depth (ft) 16	Logged By JML / Checked By	Driller Environmental West Exploration	Drilling Method Direct Push
Surface Elevation (ft) / Vertical Datum	Undetermined		Hammer Data	2-inch Microcore	Drilling Equipment	Geoprobe 5400
Latitude / Longitude	46° 17' 47.6124" / -119° 20' 08.7648"		System Datum		See "Remarks" section for groundwater observed	
Notes:						

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30					GP	Brown fine gravel with sand and trace silt (medium dense, moist) (fill)			
						GEI014-DP2 (1-1.5)		SP	Brown fine to medium sand with trace silt (medium dense, moist) (fill)			
								GP-GM	Brown fine to coarse gravel with silt and sand (medium dense, moist) (native?)			
			30									
	5					GEI014-DP2 (5-5.5) CA						
			24									
						GEI014-DP2 (9-9.5)						
	10											Groundwater observed at 10½ feet bgs at time of drilling Grab groundwater sample GEI014-DP2:042919 collected
			24						Grades to wet			
	15					GEI014-DP2 (15.5-16)						

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring DP-2

GeoEngineers

Project: Jerry's Custom Mechanics
Project Location: West Richland, Washington
Project Number: 0504-152-00

Figure A-3
Sheet 1 of 1

Drilled Start 4/29/2019 End 4/29/2019	Total Depth (ft) 14	Logged By JML Checked By	Driller Environmental West Exploration	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data 2-inch Microcore		Drilling Equipment Geoprobe 5400	
Latitude 46° 17' 47.5584" Longitude -119° 20' 08.0664"		System Datum		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0							GP	Brown fine gravel with sand and trace silt (medium dense, moist) (fill)			
								SP	Brown fine to medium sand with trace silt (medium dense, moist) (fill)			
			30			GEI014-DP3 (1.5-2)						
								GP-GM	Brown fine to coarse gravel with sand and silt (medium dense, moist) (native?)			
	5		30			GEI014-DP3 (4-4.5)						
			30			GEI014-DP3 (9-9.5) CA						
	10											Groundwater observed at 10½ feet bgs at time of drilling
			24									

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring DP-3

GeoEngineers

Project: Jerry's Custom Mechanics
Project Location: West Richland, Washington
Project Number: 0504-152-00

Figure A-4
Sheet 1 of 1

APPENDIX B
Chemical Analytical Laboratory Reports and Data Validation

GeoEngineers

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

Data Validation Report

Project: Jerry's Custom Mechanics – Environmental Assessment
April 2019 Soil and Groundwater Samples

GEI File No: 00504-152-00

Date: June 18, 2019

This report documents the results of a United States Environmental Protection Agency (EPA)-defined Stage 2A data validation (EPA Document 540-R-08-005; EPA 2009) of analytical data from the analyses of soil and groundwater samples collected as part of the April 2019 sampling event, and the associated laboratory quality control (QC) samples. The samples were obtained from the Jerry's Custom Mechanics facility located at 3639 West Van Giesen Street in Richland, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

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

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

In accordance with the Quality Assurance Project Plan (QAPP), Appendix B of the Work Plan (GeoEngineers 2019), the data validation included review of the following QC elements:

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

VALIDATED SAMPLE DELIVERY GROUPS

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

TABLE B-1 SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
590-10900-1	GEI014-DP1(5-5.5), GEI014-DP2(5-5.5), GEI014-DP3(9-9.5)
590-10901-1	GEI014-DP2:042919

CHEMICAL ANALYSIS PERFORMED

Eurofins TestAmerica Laboratories, Inc. (TestAmerica), located in Spokane, Washington, performed laboratory analyses on the samples using one or more of the following methods:

- Total Metals by Methods EPA6010C or EPA6020B

DATA VALIDATION SUMMARY

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

Data Package Completeness

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

Chain-of-Custody Documentation

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

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for each analysis. The sample coolers arrived at the laboratory outside the appropriate temperatures of between 2 and 6 degrees Celsius each at 1.4 degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

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 each sample batch, method blanks for the applicable methods were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks.

Matrix Spikes/Matrix Spike Duplicates

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

A laboratory control sample/laboratory control sample duplicate (LCS/LCSD) sample set was performed in lieu of a MS/MSD analysis.

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.

OVERALL ASSESSMENT

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the LCS/LCSD percent recovery values. Precision was acceptable, as demonstrated by the LCS/LCSD RPD values.

No analytical results were qualified. The data are acceptable for the intended use.

REFERENCES

GeoEngineers, Inc. (GeoEngineers). 2019. “Work Plan, Jerry’s Custom Mechanics,” prepared for Washington State Department of Ecology. April 22, 2019.

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

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

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-10900-1
Client Project/Site: Jerry's Custom Mechanics/00504-152-00

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: Scott Lathen

Authorized for release by:
5/13/2019 1:32:07 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Job ID: 590-10900-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt
The samples were received on 5/2/2019 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-10900-2	GEI014-DP1(5-5.5)	Solid	04/29/19 09:55	05/02/19 09:40
590-10900-5	GEI014-DP2(5-5.5)	Solid	04/29/19 10:25	05/02/19 09:40
590-10900-9	GEI014-DP3(9-9.5)	Solid	04/29/19 11:10	05/02/19 09:40

Definitions/Glossary

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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 Sample Results

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Client Sample ID: GEI014-DP1(5-5.5)
Lab Sample ID: 590-10900-2
Date Collected: 04/29/19 09:55
Matrix: Solid
Date Received: 05/02/19 09:40
Percent Solids: 96.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**130**		0.84		mg/Kg	☼	05/06/19 10:57	05/09/19 11:15	1
Lead	ND		2.0		mg/Kg	☼	05/06/19 10:57	05/09/19 11:15	1

Client Sample ID: GEI014-DP2(5-5.5)
Lab Sample ID: 590-10900-5
Date Collected: 04/29/19 10:25
Matrix: Solid
Date Received: 05/02/19 09:40
Percent Solids: 95.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**8.7**		0.89		mg/Kg	☼	05/06/19 10:57	05/09/19 11:19	1
Lead	**2.1**		2.1		mg/Kg	☼	05/06/19 10:57	05/09/19 11:19	1

Client Sample ID: GEI014-DP3(9-9.5)
Lab Sample ID: 590-10900-9
Date Collected: 04/29/19 11:10
Matrix: Solid
Date Received: 05/02/19 09:40
Percent Solids: 88.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**6.6**		0.80		mg/Kg	☼	05/06/19 10:57	05/09/19 11:23	1
Lead	ND		1.9		mg/Kg	☼	05/06/19 10:57	05/09/19 11:23	1

QC Sample Results

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 590-22042/2-A
Matrix: Solid
Analysis Batch: 22104

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		1.3		mg/Kg		05/06/19 10:57	05/08/19 16:18	1
Lead	ND		3.0		mg/Kg		05/06/19 10:57	05/08/19 16:18	1

Lab Sample ID: LCS 590-22042/1-A
Matrix: Solid
Analysis Batch: 22104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	50.0	52.0		mg/Kg		104	80 - 120
Lead	50.0	52.1		mg/Kg		104	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Client Sample ID: GEI014-DP1(5-5.5)
Lab Sample ID: 590-10900-2
Date Collected: 04/29/19 09:55
Matrix: Solid
Date Received: 05/02/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			22051	05/06/19 15:14	JSP	TAL SPK

Client Sample ID: GEI014-DP1(5-5.5)
Lab Sample ID: 590-10900-2
Date Collected: 04/29/19 09:55
Matrix: Solid
Date Received: 05/02/19 09:40
Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.55 g	50 mL	22042	05/06/19 10:57	JSP	TAL SPK
Total/NA	Analysis	6010C		1			22112	05/09/19 11:15	JSP	TAL SPK

Client Sample ID: GEI014-DP2(5-5.5)
Lab Sample ID: 590-10900-5
Date Collected: 04/29/19 10:25
Matrix: Solid
Date Received: 05/02/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			22051	05/06/19 15:14	JSP	TAL SPK

Client Sample ID: GEI014-DP2(5-5.5)
Lab Sample ID: 590-10900-5
Date Collected: 04/29/19 10:25
Matrix: Solid
Date Received: 05/02/19 09:40
Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.47 g	50 mL	22042	05/06/19 10:57	JSP	TAL SPK
Total/NA	Analysis	6010C		1			22112	05/09/19 11:19	JSP	TAL SPK

Client Sample ID: GEI014-DP3(9-9.5)
Lab Sample ID: 590-10900-9
Date Collected: 04/29/19 11:10
Matrix: Solid
Date Received: 05/02/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			22051	05/06/19 15:14	JSP	TAL SPK

Client Sample ID: GEI014-DP3(9-9.5)
Lab Sample ID: 590-10900-9
Date Collected: 04/29/19 11:10
Matrix: Solid
Date Received: 05/02/19 09:40
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.76 g	50 mL	22042	05/06/19 10:57	JSP	TAL SPK
Total/NA	Analysis	6010C		1			22112	05/09/19 11:23	JSP	TAL SPK

Laboratory References:

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

Accreditation/Certification Summary

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Laboratory: Eurofins TestAmerica, Spokane

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-025	12-07-19
Oregon	NELAP	10	4137	12-07-19
Washington	State Program	10	C569	01-06-20

Method Summary

Client: GeoEngineers Inc
Job ID: 590-10900-1
Project/Site: Jerry's Custom Mechanics/00504-152-00

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

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Client Information	Sampler: JML	Lab PM:	Carrier Tracking No(s):	COC No: 590-4564-1472.1
Client Contact: Scott Lathen	Phone: 406-239-7810	E-Mail:		Page: Page ~~1 of 25~~ 1 of 1
Company: GeoEngineers Inc				Job #:
Address: 523 East Second Ave	Due Date Requested:			
City: Spokane	TAT Requested (days):			
State, Zip: WA, 99202				
Phone:	PO #:			
Email: slathen@geoengineers.com	WO #:			
Project Name: Jerrys Custom Mechanics	Project #: 0504-152-00			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	GC	Pb	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
GEI014-DP1(1.5-2)	4/29/2019	0950	G	S					1	
GEI014-DP1(5-5.5)		0955					X	X	1	
GEI014-DP1(10.5-11)		1000								
GEI014-DP2(1-1.5)		1020								
GEI014-DP2(5-5.5)		1025					X	X		
GEI014-DP2(9-9.5)		1030								
GEI014-DP3(1.5-2)		1100								
GEI014-DP3(4-4.5)		1105							1	
GEI014-DP3(9-9.5)		1110					X	X	1	

590-10900 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		5/2/19 940	GEI	Maria Moore	5/2/19 9:40	TASPO
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.4°C

Ver: 01/16/2019

5/13/2019

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-10900-1

Login Number: 10900
List Number: 1
Creator: Arrington, Randee E

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-10901-1
Client Project/Site: Jerry's Custom Mechanics/0504-152-00

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: Scott Lathen

Authorized for release by:
5/14/2019 10:11:14 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

Table of Contents

Case Narrative

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Job ID: 590-10901-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt
The sample was received on 5/2/2019 9:40 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-10901-1	GEI014-DP2:042919	Water	04/29/19 12:10	05/02/19 09:40

Definitions/Glossary

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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 Sample Results

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Client Sample ID: GEI014-DP2:042919
Lab Sample ID: 590-10901-1
Date Collected: 04/29/19 12:10
Matrix: Water
Date Received: 05/02/19 09:40

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.19		0.0020		mg/L		05/10/19 16:41	05/13/19 13:04	5
Lead	0.028		0.0040		mg/L		05/10/19 16:41	05/13/19 13:04	5

QC Sample Results

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-300488/22-A
Matrix: Water
Analysis Batch: 300598

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 300488

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0020		mg/L		05/10/19 16:41	05/13/19 11:46	5
Lead	ND		0.0040		mg/L		05/10/19 16:41	05/13/19 11:46	5

Lab Sample ID: LCS 580-300488/23-A
Matrix: Water
Analysis Batch: 300598

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 300488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	1.01		mg/L		101	80 - 120
Lead	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: LCSD 580-300488/24-A
Matrix: Water
Analysis Batch: 300598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 300488

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	1.00	1.03		mg/L		103	80 - 120	2	20
Lead	1.00	1.02		mg/L		102	80 - 120	1	20

Lab Chronicle

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Client Sample ID: GEI014-DP2:042919
Lab Sample ID: 590-10901-1
Date Collected: 04/29/19 12:10
Matrix: Water
Date Received: 05/02/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	300488	05/10/19 16:41	T1H	TAL SEA
Total Recoverable	Analysis	6020B		5	50 mL	50 mL	300598	05/13/19 13:04	FCW	TAL SEA

Laboratory References:

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

Accreditation/Certification Summary

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Laboratory: Eurofins TestAmerica, Spokane

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-025	12-07-19
Oregon	NELAP	10	4137	12-07-19
Washington	State Program	10	C569	01-06-20

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-20
ANAB	DoD		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-20

Method Summary

Client: GeoEngineers Inc
Job ID: 590-10901-1
Project/Site: Jerry's Custom Mechanics/0504-152-00

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	TAL SEA
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: JMC	Lab PM:	Carrier Tracking No(s):	COC No: 590-4564-1472.2
Client Contact: Scott Lathen	Phone: 406-239-7810	E-Mail:		Page: Page 2 of 25 → 1 of 1
Company: GeoEngineers Inc				Job #:
Address: 523 East Second Ave	Due Date Requested:			
City: Spokane	TAT Requested (days):			
State, Zip: WA, 99202				
Phone:	PO #:			
Email: slathen@geoengineers.com	WO #:			
Project Name: Jerrys Custom Mechanics	Project #: 0504.152-00			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Cr	Pb	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
GEL014-DP2:042919	4/29/19	1210	G	W			X	X	1	

590-10901 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5/2/19 940	GEI	Maria O'Toole	5/2/19 9:40	TASPO
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.4

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-4319.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: randee.arrington@testamericainc.com	State of Origin: Washington	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington		Job #: 590-10901-1
Address: 5755 8th Street East, ,	Due Date Requested: 5/14/2019			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel) 253-922-5047(Fax)	PO #:			
Email:	WO #:			
Project Name: Jerry's Custom Mechanics/0504-152-00	Project #: 59001776			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3005A (MOD) Cr & Pb	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
GEI014-DP2:042919 (590-10901-1)	4/29/19	12:10 Pacific		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Maria Odell	5/6/19 1400	ASPC	Jerry Hatch	5-7-19 0950	TASeq
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5=1.3

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-10901-1

Login Number: 10901
List Number: 1
Creator: Arrington, Randee E

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-10901-1

Login Number: 10901
List Number: 2
Creator: Vallelunga, Diana L

List Source: Eurofins TestAmerica, Seattle
List Creation: 05/07/19 02:13 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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 the former Jerry's Custom Mechanics site located in Richland, 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.

Uncertainty May Remain Even After This Phase II ESA is Completed

No ESA can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

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.

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.

GeoEngineers