GeoEngineers

Memorandum

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To: Elizabeth Kercher, LUST Site Manager, Washington Department of Ecology

From: Justin Orr, LG, Project Manager and Scott Lathen, PE, Associate Environmental Engineer

State of Washington 22011022 Licensed Geologist

3/15/2024

JUSTIN ORR

Date: March 15, 2024

File: 0504-198-00

Subject: Environmental Site Assessment – WSDOT Anatone Maintenance Facility

1.0 INTRODUCTION

This memorandum (memo) describes soil and groundwater assessment activities conducted at the Washington State Department of Transportation (WSDOT) Anatone Maintenance facility (herein referred to as "site") located at State Route 129 (SR-129), Milepost (MP) 17.4 (west side) in Anatone, Washington, as shown on the attached Figure 1, Vicinity Map.

This memo has been prepared by GeoEngineers, Inc. (GeoEngineers) for the Washington State Department of Ecology (Ecology) under Ecology Master Contract No. C1900044, Amendment No. 6, task work assignment number GEI055.

This memo describes site history, field activities, observations, and chemical analytical results associated with soil and groundwater samples collected at the site. The purpose of this assessment was to determine if soil and groundwater contamination associated with the historic release of petroleum products from the former Underground Storage Tanks (UST) system is present at the site (WSDOT 1994).

2.0 SITE DESCRIPTION

The WSDOT Anatone Maintenance Site is a vehicle maintenance facility located on an approximately 1.94- acre parcel at the southwest corner of Mill Road and SR-129 in Anatone, Washington. The site consists of a maintenance building, two storage buildings/maintenance garages and asphalt parking area. An aboveground storage tank (AST) containing diesel fuel is located on the northeast side of the building. Site features are shown in the attached Figure 2, Site Plan.

In 1993, Ecology was notified of a suspected release of petroleum product from UST system located at the site. One 500-gallon gasoline and one 2,000-gallon diesel UST, product transfer lines and dispensers were removed from a UST basin located near the northeast corner of the garage building. Following UST removal, petroleum-contaminated soil (PCS) was identified in the excavation. Approximately 60 cubic yards (cy) of

PCS were excavated from the UST basin and confirmation samples were collected from soil left in place in the UST basin. Groundwater was not encountered during the excavation (WSDOT 1994).

The confirmation samples indicated that concentrations of gasoline-range petroleum hydrocarbons (GRPH), diesel-range petroleum hydrocarbons (DRPH) and benzene, toluene, ethylbenzene and total xylenes (BTEX) were greater than the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels for unrestricted land use in soil left in place at the site (WSDOT 1994).

The UST basin was estimated to be approximately 10 feet deep. The bottom and sides of the basin were described as "solid rock or shale" in the UST removal report.

Based on the topographic gradient and the location of Mill Creek approximately 300 feet east of the site, the groundwater gradient was anticipated to be to the northeast. Based on the well log for the on-site drinking water well, groundwater was anticipated to be approximately 80 feet below ground surface (bgs).

3.0 FIELD INVESTIGATION ACTIVITIES

GeoEngineers advanced soil borings, collected soil samples, installed one temporary well point, collected a grab groundwater sample, and submitted the samples for chemical analysis to assess soil and groundwater conditions for potential contamination associated with the historic release of petroleum products from the former UST described above.

The following sections describe field activities and observed subsurface conditions. Based on site conditions, some modifications to the Work Plan were implemented as explained in the sections below.

3.1. Soil Assessment

Initial site reconnaissance occurred on December 6, 2023. During this site visit, site access was assessed and potential boring locations were marked. Site utilities near the boring locations were identified and marked by Utilities Plus, LLC on December 12, 2023. Boring locations are shown in Figure 2.

On December 12 and 13, 2023, GeoEngineers used a hollow-stem auger (HSA) drill rig to advance six soil borings. GEI055-B1 through GEI055-B5 were advanced at the approximate locations proposed in the Work Plan. One additional boring (GEI055-B6) was advanced to the north of GEI055-B2 based on the field screening results from GEI055-B2 as described below. Boring logs are included in Attachment A, Boring Logs.

GEI055-B1 was advanced to refusal on bedrock at approximately 11.5 feet bgs. GEI055-B2 through GEI055-B6 were advanced to refusal on bedrock between 5.5 feet bgs and 6.5 feet bgs.

Soil samples were collected from each boring using an 18-inch split spoon (SPT) sampler at 2.5-foot intervals. Soil samples recovered from the borings were field screened for petroleum contamination. Field screening results are included in the boring logs in Appendix A. Volatile organic vapors, measured using a photoionization detector (PID) are summarized below in Table I. Petroleum odors were observed in all borings except GEI055-B4 and GEI055-B6. In general, the odors corresponded with elevated PID readings. Slight sheens were observed in GEI055-B1 at all depths sampled except 7.5 feet to 9 feet bgs.

Field screening results are included in the boring logs (Attachment A).

TABLE I. SUMMARY OF FIELD SCREENING RESULTS

Screened Interval (feet bgs)	Volatile Organic Vapor Concentrations (ppm)					
	GEI055-B1	GEI055-B2	GEI055-B3	GEI055-B4	GEI055-B5	GEI055-B6
1-2.5	3.7	7.5	3.1	11.4	1.8	1.2
5-6.5	6.0	409.2	4.5	12.1	34. 2	<1
7.5-9	1.5	--	--	--	--	--
10-11.5	35	--	–	--	--	--

Notes:
bgs = below ground surface; ppm = parts per million; <1 = less than 1 ppm; '—' = depth interval not sampled.

GeoEngineers backfilled the borings with bentonite chips and completed the borings with concrete to match the existing ground surface.

3.2. Groundwater Assessment

Groundwater was encountered in boring GEI055-B1. One grab groundwater sample was collected from a temporary well installed in GEI055-B1. The temporary well point was purged using low-flow groundwater sampling techniques and water quality parameters were monitored until they stabilized prior to sampling as described in the Work Plan. Depth to groundwater and groundwater quality parameters at the time of sample collection are summarized in Table II below.

TABLE II. GROUNDWATER FIELD PARAMETERS

Temporary Monitoring Well Location	Field Measured Groundwater Quality Parameters						
	Depth to Groundwater (feet bgs)	pH (pH units)	Specific Conductivity (µS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (degrees C)
GEI055-B1-121223	3.75	7.61	3692	252.3	1.99	192.31	16.7

Notes:
bgs = below ground surface; ORP = oxygen reduction potential; µS/cm = micro-Siemens per centimeter; mV = millivolts; mg/L = milligrams per liter; NTU = nephelometric turbidity unit; C = Celsius

3.1. Subsurface Conditions

Soil samples recovered from the borings indicate the soil profile at boring GEI055-B1 consisted of poorly graded gravel from 2.5 feet bgs to 11.5 feet bgs. The soil profile for boring GEI055-B2 through GEI055-B6 consisted of clay from the surface to approximately 5 feet bgs, and poorly graded gravel from 5 feet bgs to the final depths of the borings.

Groundwater was observed in GEI055-B1 at 3.75 feet bgs. Groundwater in GEI055-B1 is likely perched groundwater accumulated within the UST basin shown in Figure 2.

3.2. Investigation-Derived Waste

Investigation-derived waste (IDW) including soil cuttings from the borings and purge water from the temporary wells were placed in 55-gallon drums, labeled, and stored on the north side of the AST, pending analysis and disposal. Nwestco, LLC (Nwestco) collected the IDW on February 14, 2024, and disposed the IDW at Waste Management's Graham Road landfill in Spokane, Washington on February 20, 2024. The waste disposal manifest is included in Attachment B, IDW Disposal Documentation.

4.0 CHEMICAL ANALYTICAL RESULTS

Four soil samples, one duplicate soil sample, one grab groundwater sample and one duplicate groundwater sample were submitted to Eurofins Environment Testing Northwest (Eurofins) for chemical analysis. The laboratory analytical report and a data validation report are included in Attachment C, Chemical Analytical Laboratory Report and Data Validation Report. The samples were analyzed for the following contaminants of concern (COCs):

- GRPH using Northwest Method Northwest Total Petroleum Hydrocarbon (NWTPH)-Gx;
- BTEX and naphthalene (BTEXN), ethylene dichloride (EDC) and methyl tert-butyl ether (MTBE) using United States Environmental Protection Agency (EPA) Method 8260D;
- Ethylene dibromide (EDB) using EPA Method 8011;
- DRPH and oil-range petroleum hydrocarbons (ORPH) using Northwest Method NWTPH-Dx; and
- Total (soil and groundwater) and dissolved (groundwater only) lead using EPA Method 6010D.

4.1. Soil Chemical Analytical Results

Soil chemical analytical results are presented and compared to the MTCA Method A cleanup levels for unrestricted land use in Chemical Analytical Results – Soil, Table 1. COCs were either not detected or were detected at concentrations less than their respective MTCA Method A cleanup levels in the samples analyzed.

4.2. Groundwater Chemical Analytical Results

Groundwater chemical analytical results are presented and compared to the MTCA Method A cleanup levels in Chemical Analytical Results – Groundwater, Table 2. COCs were either not detected or detected at concentrations less than their respective MTCA Method A cleanup levels in the sample analyzed.

5.0 SUMMARY AND CONCLUSIONS

Six soil borings were advanced on December 12 and 13, 2023, at the WSDOT Anatone Maintenance facility located at State Route 129 (SR-129), Milepost (MP) 17.4 (west side) in Anatone, Washington. Soil and grab groundwater samples were collected and submitted for laboratory analysis. COCs were either not detected or were detected at concentrations less than their respective MTCA Method A cleanup levels.

Based on the results of this soil and groundwater assessment, the site may qualify for a no further action (NFA) determination by Ecology. Contamination greater than the MTCA Method A cleanup levels related to the historic release of petroleum products from the former UST is not present at the site at the locations and depths sampled.

6.0 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 were 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, judgement, and experience. No warranty or other conditions, express or implied, should be understood.

Please refer to Attachment D, Report Limitations and Guidelines for Use, for additional information pertaining to this report.

7.0 REFERENCES

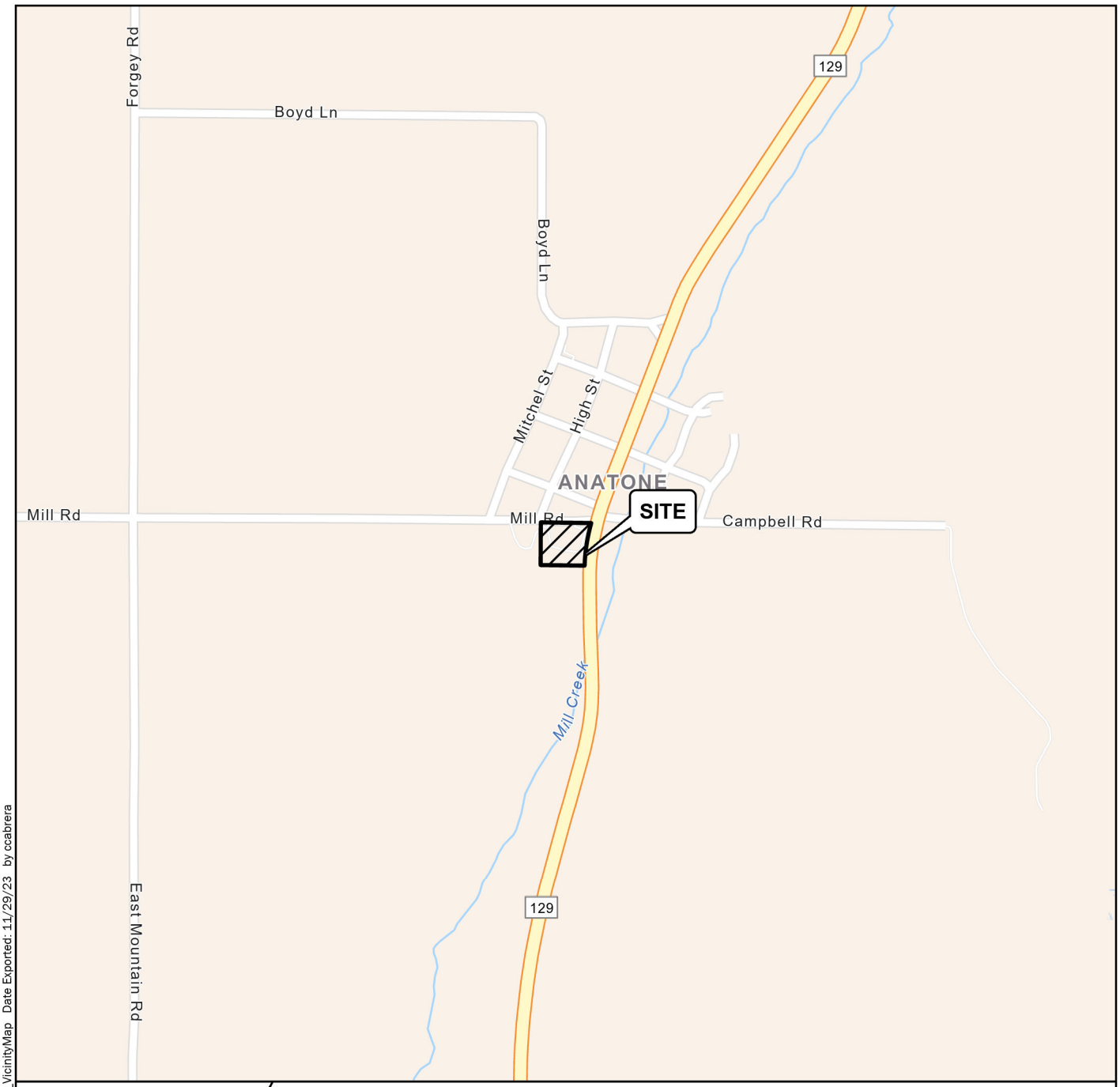
GeoEngineers, Inc. 2023. "Work Plan, Washington State Department of Transportation Anatone Maintenance Facility, State Route 129, Milepost 17.4 (west side), Anatone, Washington." December 12, 2023. File No. 0504-198-00.

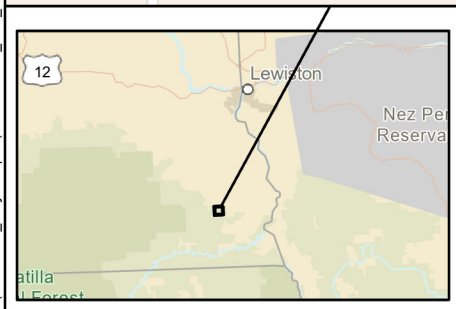
Washington State Department of Ecology. 2013. "Model Toxics Control Act Regulation and Statute, Chapter 173-340 WAC and 70.105D RCW." Revised 2013, Publication 94-06.

Washington State Department of Transportation. 1994. "Cleanup Action for WSDOT Property at: Anatone, SR 129, M.P. 17.4, Anatone, Washington." April 1994.

JDO:SHL:nl

Attachments:
Figure 1. Vicinity Map
Figure 2. Site Plan
Table 1. Chemical Analytical Results – Soil
Table 2. Chemical Analytical Results – Groundwater
Attachment A. Boring Logs
Attachment B. IDW Disposal Documentation
Attachment C. Chemical Analytical Laboratory Report and Data Validation Report
Attachment D. Report Limitations and Guidelines for Use





N

0 1,000

Feet

Source(s):
- ESRI

Coordinate System: NAD 1983 UTM Zone 11N

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

Vicinity Map

WA DOT Anatone Maintenance Facility
Anatone, Washington

GeoEngineers

Figure 1

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P:\0\0504198\GIS\0504198_Project\0504198_Project.aprx\0504198800_F02_SitePlan Date Exported: 01/25/24 by glohrmeyer

Source(s):
- Asotin County parcels
- Bing Imagery

Coordinate System: GCS WGS 1984

Legend

- Proposed Boring Number and Approximate Location
- Former UST Basin and 1993 Excavation
- Site Boundary

N

0 40

Feet

Site Plan

WA DOT Anatone Maintenance Facility
Anatone, Washington

GeoEngineers

Figure 2

Table 1

Chemical Analytical Results - Soil[1]

WA DOT Anatone Maintenace Shop

Anatone, Washington

		Location ID	**GEI055-B1**		**GEI055-B2**		**GEI055-B3**		**GEI055-B4**		**GEI055-B5**		**GEI055-B6**	
		Sample Depth	**10-11.5**		**5-6.5**		**5-6.5**		**5-6.5**		**5-6.5**		**2.5-4**	
		Sample Date	**12/12/2023**		**12/12/2023**		**12/12/2023**		**12/12/2023**		**12/12/2023**		**12/13/2023**	
Analyte	**MTCA CUL[7]**	**Units**												
Petroleum Hydrocarbons														
GRPH[2]	30/100[8]	mg/kg	3.4	U	**72**	**J**	1.7	U	**2.4**	**J**	**74**		**7.9**	
DRPH[3]	2,000	mg/kg	**7.8**	**J**	**75**	**J**	**12**	**J**	**14**	**J**	**460**		**58**	**J**
ORPH[3]		mg/kg	**13**	**J**	**36**		**35**		**65**		**420**		**310**	
VOCs[4]														
Benzene	0.03	mg/kg	0.019	U	0.019	U	0.020	U	0.028	U	0.011	U	0.014	U
Toluene	7	mg/kg	0.084	U	0.042	U	0.042	U	0.058	U	0.047	U	0.063	U
Ethylbenzene	6	mg/kg	0.030	U	**0.063**	**J**	0.015	U	0.021	U	0.017	U	0.022	U
m, p-Xylene	NE	mg/kg	0.053	U	**0.092**	**J**	0.027	U	0.037	U	0.030	U	0.040	U
o-Xylene	NE	mg/kg	0.043	U	0.022	U	0.22	U	0.030	U	0.024	U	0.032	U
Xylenes (total)	9	mg/kg	0.096	U	**0.092**	**J**	0.049	U	0.07	U	0.054	U	0.072	U
Naphthalene	160	mg/kg	0.052	U	**0.22**	**J**	0.026	U	0.036	U	**0.033**	**J**	0.039	U
Ethylene dichloride (EDC)	NE	mg/kg	0.041	U	0.020	U	0.020	U	0.028	U	0.023	U	0.030	U
Methyl tert-butyl Ether (MTBE)	0.1	mg/kg	0.056	U	0.028	U	0.03	U	0.039	U	0.032	U	0.042	U
Ethylene dibromide (EDB)[5]	0.005	mg/kg	0.000038	U	0.000037	U	0.000035	U	0.000043	U	0.000040	U	0.000042	U
Metals[6]														
Lead	250	mg/kg	**1.1**	**J**	**2.3**	**J**	**3.1**		**6.3**		**4.7**		**7.2**	

Notes

[1]Samples analyzed by Eurofins Environment Testing Northwest (Eurofins) located in Spokane Valley, Washington.

[2]Gasoline-range petroleum hydrocarbons (GRPH) analyzed using Northwest Method NWTPH-Gx.

[3]Diesel- and oil-range petroleum hydrocarbons (DRPH and ORPH, respectively) analyzed using Northwest Method NWTPH-Dx.

[4]Volatile organic compounds (VOCs) analyzed using Environemntal Protection Agency (EPA) Method 8260D.

[5]Ethylene dibromide (EDB) analyzed using EPA Method 8011.

[6]Metals analyzed using EPA Method 6010D.

[7]Washington State Model Toxics Control Act (MTCA) Method A cleanup levels (CUL) for unrestricted land use.

[8]MTCA Method A clenaup level for GRPH when benzene is present / no detectable benzene.

bgs = below ground surface.

mg/kg = milligrams per kilogram.

NE = not established.

U = analyte was not detected above the laboratory method detection limit (MDL).

J = estimated concentration.

Bold indicates analyte was detected.

Table 2

Chemical Analytical Results - Groundwater[1]

WA DOT Anatone Maintenace Shop

Anatone, Washington

			Location ID	**GEI055-B1**
			Sample Date	**12/12/2023**
Analyte	**MTCA CUL[7]**	**Units**		
Petroleum Hydrocarbons				
GRPH[2]	800/1,000[8]	µg/L	**100**	**J**
DRPH[3]	500	µg/L	**200**	**J**
ORPH[3]		µg/L	120	U
VOCs[4]				
Benzene	5	µg/L	0.093	U
Toluene	1,000	µg/L	0.31	U
Ethylbenzene	700	µg/L	**2.6**	
m, p-Xylene	NE	µg/L	**0.57**	**J**
o-Xylene	NE	µg/L	0.16	U
Xylenes (total)	1,000	µg/L	**0.57**	**J**
Ethylene dichloride (EDC)	5	µg/L	0.31	U
Methyl tert-butyl Ether (MTBE)	20	µg/L	0.16	U
Ethylene dibromide (EDB)[5]	0.02	µg/L	0.0025	U
Metals[6]				
Total lead	15	µg/L	5.1	U
Dissolved lead	15	µg/L	5.1	U

Notes

[1]Samples analyzed by Eurofins Environment Testing Northwest (Eurofins

[2]Gasoline-range petroleum hydrocarbons (GRPH) analyzed using Northwest Metl

[3]Diesel- and oil-range petroleum hydrocarbons (DRPH and ORPH, respectively) a

[4]Volatile organic compounds (VOCs) analyzed using Environemntal Protection Ag

[5]Ethylene dibromide (EDB) analyzed using EPA Method 8011.

[6]Metals analyzed using EPA Method 6010D.

[7]Washington State Model Toxics Control Act (MTCA) Method A cleanup l

[8]MTCA Method A clenaup level for GRPH when benzene is present / no

µg/L = microgram per liter.

NE = not established.

U = analyte was not detected above the laboratory method detection lin

J = estimated concentration.

Bold indicates analyte was detected.

ATTACHMENT A
Boring Logs

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
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	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 / Dames & Moore (D&M)

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
PL	Point load test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
UU	Unconsolidated undrained triaxial 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 12/12/2023 End 12/12/2023	Total Depth (ft) 11.5	Logged By MMS Checked By JDO	Driller GeoEngineers, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Truck-mounted CME 75	
Latitude 46.133407 Longitude -117.133882		System Datum WGS84 (feet)		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					CC	Approximately 8 inches concrete			
						CR	Approximately 12 inches base coarse			
						GP	Brown fine to coarse gravel with sand (loose, moist)			
		6	4					SS	3.7	
										Groundwater observed at approximately 3¾ feet
	5	6	3	GEI055-B1 (5-6.5)			Becomes very loose	SS	6.0	
		4	4				Becomes loose	NS	1.5	
	10	3	57/10"	GEI055-B1 (10-11.5) CA			Becomes very dense	SS	35	Odor

Auger refusal at 11½ feet

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

Log of Boring GEI055-B1

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Project: WA DOT Anatone Maintenance Facility
Project Location: Anatone, WA
Project Number: 0504-198-00

Figure A-2
Sheet 1 of 1

Drilled Start 12/12/2023 End 12/12/2023	Total Depth (ft) 6.5	Logged By MMS Checked By JDO	Driller GeoEngineers, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Truck-mounted CME 75	
Latitude 46.133427 Longitude -117.133812		System Datum WGS84 (feet)		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample	FIELD DATA: Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0						CC	Approximately 6 inches of concrete			
							RX	Approximately 12 inches of 5/8-inch-minus base course			
							CL	Brown clay with sand and gravel (very stiff, moist)			
		15	15		GEI055-B2 (2.5-4)				NS	7.5	Odor
	5	14	62/11"		GEI055-B2 (5-6.5) CA				NS	409.2	Odor
							GP	Gray fine to coarse gravel with trace silt and sand (very dense, moist)			
								Auger refusal at 6½ feet			

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

Log of Boring GEI055-B2

GeoEngineers

Project: WA DOT Anatone Maintenance Facility
Project Location: Anatone, WA
Project Number: 0504-198-00

Drilled Start 12/12/2023 End 12/12/2023	Total Depth (ft) 6.5	Logged By MMS Checked By JDO	Driller GeoEngineers, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Truck-mounted CME 75	
Latitude 46.133387 Longitude -117.133812		System Datum WGS84 (feet)		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0					CC	Approximately 6 inches of concrete			
						CR	Approximately 12 inches of 5/8-inch-minus base course			
						CL	Brown clay with gravel (very stiff, moist)			
		16	13	GEI055-B3 (2.5-4)				NS	3.1	Odor
	5	6		GEI055-B3 (5-6.5) CA		GP-GM	Brown fine to coarse gravel with silt and sand (very dense, moist)	NS	4.5	

Auger refusal at 6½ feet

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

Log of Boring GEI055-B3

GeoEngineers

Project: WA DOT Anatone Maintenance Facility
Project Location: Anatone, WA
Project Number: 0504-198-00

Figure A-4
Sheet 1 of 1

Drilled Start 12/12/2023 End 12/12/2023	Total Depth (ft) 6.5	Logged By MMS Checked By JDO	Driller GeoEngineers, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Truck-mounted CME 75	
Latitude 46.133455 Longitude -117.133758		System Datum WGS84 (feet)		Groundwater not observed at time of exploration	

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						AC	Approximately 3 inches asphalt concrete			
							CR	Approximately 12 inches of 5/8-inch-minus base course			
							CL	Brown clay with gravel (very stiff, moist)			
		13	11		GEI055-B4 (2.5-4)				NS	11.4	
	5	13	56/11"		GEI055-B4 (5-6.5) CA		GP-GC	Brown fine to coarse gravel with clay (hard, moist)	NS	12.1	

Auger refusal at 6½ feet

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

Date:1/25/24 Path:P:\0\0504198\GINT\0504198OO.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring GEI055-B4

GeoEngineers

Project: WA DOT Anatone Maintenance Facility
Project Location: Anatone, WA
Project Number: 0504-198-00

Figure A-5
Sheet 1 of 1

Drilled Start 12/12/2023 End 12/12/2023	Total Depth (ft) 6.5	Logged By MMS Checked By JDO	Driller GeoEngineers, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Truck-mounted CME 75	
Latitude 46.133375 Longitude -117.133757		System Datum WGS84 (feet)		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0					AC	Approximately 3 inches asphalt concrete			
						CR	Approximately 12 inches of 5/8-inch-minus base course			
						CL	Brown clay with sand (very stiff, moist)			
		12	13	GEI055-B5 (2.5-4)				NS	1.8	
	5	6	50/6"	GEI055-B5 (5-6.5) CA		GP	Brown fine to coarse gravel with sand (hard, moist)	NS	34.2	Odor

Auger refusal at 6½ feet

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

Log of Boring GEI055-B5

GeoEngineers

Project: WA DOT Anatone Maintenance Facility
Project Location: Anatone, WA
Project Number: 0504-198-00

Figure A-6
Sheet 1 of 1

Drilled Start 12/13/2023 End 12/13/2023	Total Depth (ft) 5.5	Logged By MMS Checked By JDO	Driller GeoEngineers, Inc.	Drilling Method Hollow-stem Auger	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Truck-mounted CME 75	
Latitude 46.133465 Longitude -117.133839		System Datum WGS84 (feet)		Groundwater not observed at time of exploration	

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					AC	Approximately 3 inches asphalt concrete			
						CR	Approximately 12 inches of 5/8-inch-minus base course			
						CL	Brown clay with sand and occasional gravel (stiff, moist)			
		12	12	GEI055-B6 (2.5-4) CA				NS	1.2	
	5	3	50/4"	GEI055-B6(5)		GP-GM	Brown fine to coarse gravel with silt and sand (very dense, moist)	NS	<1	

Auger refusal at 5½ feet

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

Log of Boring GEI055-B6

GeoEngineers

Project: WA DOT Anatone Maintenance Facility
Project Location: Anatone, WA
Project Number: 0504-198-00

Figure A-7
Sheet 1 of 1

ATTACHMENT B
IDW Disposal Documentation

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA 99022 Ph: (509)244-0151

Original
Ticket# 715870

Customer Name ABLECLEAN ABLE CLEAN-UP
Ticket Date 02/20/2024
Payment Type Credit Account
Manual Ticket#
Route
Hauling Ticket#
Destination
Manifest 116999wa
Profile 116999WA (IDW)
Generator WA-ABLE CLEANUP TECH 18838 ABLE CLEANUP TECHNOLOGIES INC_5308 N MYRTLE ST,
PO# 24019

Carrier ABLECLEANUP ABLE CLEANUP TECHNOLOGIE
Vehicle# laramie
Container
Driver
Check#
Billing# 0000726
Grid

Category:
Job 24019 SR129 MP 17.4
Approved:
Check# Paid [ ]
Amstane, WA

	Time	Scale	Operator	Inbound	Gross	16400 lb
In	02/20/2024 12:28:00	Scale1	zrichard		Tare	15180 lb
Out	02/20/2024 12:43:34	Scale1	zrichard		Net	1220 lb
					Tons	0.61

Comments

	Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1	Cont Soil Pet-RGC-Tons-	100	0.61	Tons				SPOKANE
2	ENERGY-Energy Surcharge	100		%				SPOKANE
3	SRHD1-Spokane Regional	100	0.61	Tons				SPOKANE

24019
3 Drums

55.63

Total Tax/Fees
Total Ticket

Driver`s Signature

The total amount includes fees and taxes that may not all be listed on this ticket due to technic
limitation.

ATTACHMENT C
Chemical Analytical Laboratory Report and Data Validation Report

GeoEngineers

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

Data Validation Report

Project:	Washington State Department of Transportation (WA DOT) Anatone Maintenance Site — Environmental Services December 2023 Soil and Groundwater Samples
File:	0504-198-00
Date:	January 28, 2024

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 soil and groundwater samples collected as part of the December 2023 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the WA DOT Anatone Maintenance Site facility located at State Route 129 (SR-129), Milepost (MP) 17.4 (west side) in Anatone, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional for Organic Superfund Methods Data Review (USEPA, 2020a) and Inorganic Superfund Methods Data Review (USEPA, 2020b) (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, 2023), 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 and Trip Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- 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
590-22488-1	GEI055-B1(10-11.5), GEI055-B1-121223, DUP:121223-2, GEI055-B2(5-6.5), DUP:121223, GEI055-B3(5-6.5), GEI055-B4(5-6.5), GEI055-B5(5-6.5), GEI055-B6(2.5-4), Comp-IDW:121323, Trip Blank (soil), Trip Blank (water)

CHEMICAL ANALYSIS PERFORMED

Eurofins Spokane, Environment Testing Northwest, LLC (Eurofins), located in Spokane, Washington, performed laboratory analyses on the samples using one or more of the following methods:

- Gasoline-Range Hydrocarbons (NWTPH-Gx) by Method NWTPH-Gx;
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Volatile Organic Compounds (VOCs) by Method EPA8260D;
- 1,2-Dibromoethane (EDB) by Method EPA8011; and
- Total and Dissolved Metals by Methods EPA6010D and EPA7471B

DATA VALIDATION SUMMARY

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

Data Package Completeness

Eurofins 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 cooler arrived at the laboratory within 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 an environmental sample. Surrogates are used for organic analyses and are added to the 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. The surrogate percent recoveries for field samples were within the laboratory control limits.

Method and Trip Blanks

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, with the following exception:

SDG 590-22488-1: (Total Metals) There was a positive result for total mercury in the method blank digested on 12/27/2023. The positive result for this target analyte was qualified as non-detected (U) in Sample Comp-IDW:121323.

Trip Blanks

Trip blanks are analyzed to provide an indication as to whether volatile compounds have cross-contaminated other like samples within the transportation process to the laboratory. None of the analytes of interest were detected in the trip blanks.

Matrix Spikes/Matrix Spike Duplicates

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

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

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.

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 is 30 percent. The RPD control limit for soil is 40 percent.

SDG 590-22488-1: Two field duplicate sample pairs, GEI055-B2(5-6.5)/DUP:121223 and GEI055-B1-121223/DUP:121223-2, were submitted with this SDG. The precision criteria for the target analytes were met for these sample pairs, with the exception of diesel-range hydrocarbons, gasoline-range hydrocarbons, and naphthalene in sample pair GEI055-B2(5-6.5)/DUP:121223 and the exception of gasoline-range hydrocarbons in sample pair GEI055-B1-121223/DUP:121223-2. The positive results for these target analytes were qualified as estimated (J) in these sample pairs, accordingly.

Miscellaneous

SDG 590-22488-1: (NWTPH-Dx) The positive results for diesel-range hydrocarbons in Samples GEI055-B3(5-6.5) and GEI055-B4(5-6.5) appear to be due to lube oil-range hydrocarbons overlap in the sample concentrations. For this reason, the positive results for this target analyte were qualified as estimated (J) in these samples.

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 field duplicate RPD values, with the exceptions noted above.

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

TABLE 2. SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Qualifier	Reason
GEI055-B1-121223	Gasoline-range hydrocarbons	J	Field Duplicate Precision
DUP:121223-2	Gasoline-range hydrocarbons	J	Field Duplicate Precision

GEI055-B2(5-6.5)	Diesel-range hydrocarbons Gasoline-range hydrocarbons Naphthalene	J J J	Field Duplicate Precision Field Duplicate Precision Field Duplicate Precision
DUP:121223	Diesel-range hydrocarbons Gasoline-range hydrocarbons Naphthalene	J J J	Field Duplicate Precision Field Duplicate Precision Field Duplicate Precision
GEI055-B3(5 6.5)	Diesel-range hydrocarbons	J	See Miscellaneous
GEI055-B4(5-6.5)	Diesel-range hydrocarbons	J	See Miscellaneous
Comp-IDW:121323	Total mercury	U	Method Blank Contamination

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) 2020a. Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review, EPA-540-R-20-005. November 2020.

U.S. Environmental Protection Agency (USEPA) 2020b. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA-542-R-20-006. November 2020.

GeoEngineers, Inc. (GeoEngineers). "Work Plan, Washington State Department of Transportation Anatone Maintenance Facility," prepared for Washington State Department of Ecology. December 12, 2023.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Bryce Hanson
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Generated 12/29/2023 11:32:00 AM

JOB DESCRIPTION

Anatone Maintenance Shop/0504-198-00

JOB NUMBER

590-22488-1

Eurofins Spokane
11922 East 1st Ave
Spokane WA 99206

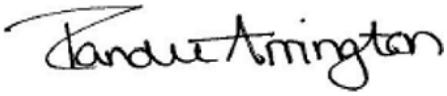
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
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Authorized for release by
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Job ID: 590-22488-1 Eurofins Spokane

Job Narrative
590-22488-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/13/2023 3:54 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

GC/MS VOA
Method 8260D: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 590-45078.

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

GC Semi VOA
Method NWTPH_Dx: The continuing calibration verification (CCV) associated with batch 590-45096 recovered above the upper control limit for Residual Range Organics (RRO) (C25-C36), o-Terphenyl and n-Triacontane-d62. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 590-45096/14), (CCV 590-45096/25) and (CCVRT 590-45096/3).

Method NWTPH_Dx: Detected hydrocarbons in the diesel range appear to be due to oil overlap.

GEI055-B4(5-6.5) (590-22488-4) and GEI055-B3(5-6.5) (590-22488-17)

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

Metals
Method 7471B: The method blank for preparation batch 590-45222 and 590-45222 and analytical batch 590-45236 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

Sample Summary

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-22488-2	GEI055-B1(10-11.5)	Solid	12/12/23 13:31	12/13/23 15:54
590-22488-4	GEI055-B4(5-6.5)	Solid	12/12/23 11:40	12/13/23 15:54
590-22488-6	GEI055-B2(5-6.5)	Solid	12/12/23 14:13	12/13/23 15:54
590-22488-7	DUP:121223	Solid	12/12/23 12:00	12/13/23 15:54
590-22488-9	GEI055-B5(5-6.5)	Solid	12/12/23 10:53	12/13/23 15:54
590-22488-10	GEI055-B6(2.5-4)	Solid	12/13/23 09:06	12/13/23 15:54
590-22488-12	GEI055-B1-121223	Water	12/12/23 15:25	12/13/23 15:54
590-22488-13	DUP:121223	Water	12/12/23 15:00	12/13/23 15:54
590-22488-14	Trip Blank	Solid	12/12/23 00:00	12/13/23 15:54
590-22488-15	Trip Blank	Water	12/12/23 00:00	12/13/23 15:54
590-22488-16	Comp-IDW:121323	Solid	12/13/23 09:45	12/13/23 15:54
590-22488-17	GEI055-B3(5-6.5)	Solid	12/12/23 15:19	12/13/23 15:54

Definitions/Glossary

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Client Sample ID: GEI055-B1(10-11.5)
Lab Sample ID: 590-22488-2
Date Collected: 12/12/23 13:31
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 89.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.19	0.041	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
Benzene	ND		0.037	0.019	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
Ethylbenzene	ND		0.19	0.030	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
m,p-Xylene	ND		0.74	0.053	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
Methyl tert-butyl ether	ND		0.093	0.056	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
Naphthalene	ND		0.37	0.052	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
o-Xylene	ND		0.37	0.043	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
Toluene	ND		0.19	0.084	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1
Xylenes, Total	ND		1.1	0.096	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*79 - 124*	*12/19/23 11:19*	*12/19/23 16:33*	*1*
4-Bromofluorobenzene (Surr)	*95*		*66 - 129*	*12/19/23 11:19*	*12/19/23 16:33*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*	*12/19/23 11:19*	*12/19/23 16:33*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*	*12/19/23 11:19*	*12/19/23 16:33*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		9.3	3.4	mg/Kg	☼	12/19/23 11:19	12/19/23 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 16:33*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.087	0.038	ug/Kg	☼	12/22/23 10:10	12/22/23 16:39	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**7.8**	**J**	11	4.6	mg/Kg	☼	12/18/23 10:18	12/18/23 20:47	1
Residual Range Organics (RRO) (C25-C36)	**13**	**J**	27	5.5	mg/Kg	☼	12/18/23 10:18	12/18/23 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*12/18/23 10:18*	*12/18/23 20:47*	*1*
n-Triacontane-d62	*104*		*50 - 150*	*12/18/23 10:18*	*12/18/23 20:47*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.1**	**J**	2.1	1.0	mg/Kg	☼	12/27/23 10:24	12/27/23 14:33	1

Client Sample ID: GEI055-B4(5-6.5)
Lab Sample ID: 590-22488-4
Date Collected: 12/12/23 11:40
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 78.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.13	0.028	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
Benzene	ND		0.026	0.013	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
Ethylbenzene	ND		0.13	0.021	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
m,p-Xylene	ND		0.52	0.037	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1

Client Sample ID: GEI055-B4(5-6.5)
Lab Sample ID: 590-22488-4
Date Collected: 12/12/23 11:40
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 78.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.065	0.039	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
Naphthalene	ND		0.26	0.036	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
o-Xylene	ND		0.26	0.030	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
Toluene	ND		0.13	0.058	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1
Xylenes, Total	ND		0.77	0.067	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*79 - 124*	*12/19/23 11:19*	*12/19/23 16:55*	*1*
4-Bromofluorobenzene (Surr)	*96*		*66 - 129*	*12/19/23 11:19*	*12/19/23 16:55*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*	*12/19/23 11:19*	*12/19/23 16:55*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*	*12/19/23 11:19*	*12/19/23 16:55*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**2.4**	**J**	6.5	2.3	mg/Kg	☼	12/19/23 11:19	12/19/23 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 16:55*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.097	0.043	ug/Kg	☼	12/22/23 10:10	12/22/23 17:29	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**14**		12	5.2	mg/Kg	☼	12/18/23 10:18	12/18/23 21:08	1
Residual Range Organics (RRO) (C25-C36)	**65**		31	6.2	mg/Kg	☼	12/18/23 10:18	12/18/23 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*12/18/23 10:18*	*12/18/23 21:08*	*1*
n-Triacontane-d62	*99*		*50 - 150*	*12/18/23 10:18*	*12/18/23 21:08*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.3**		2.5	1.2	mg/Kg	☼	12/27/23 10:24	12/27/23 14:37	1

Client Sample ID: GEI055-B2(5-6.5)
Lab Sample ID: 590-22488-6
Date Collected: 12/12/23 14:13
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 91.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.094	0.020	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
Benzene	ND		0.019	0.0094	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
Ethylbenzene	**0.063**	**J**	0.094	0.015	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
m,p-Xylene	**0.092**	**J**	0.38	0.027	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
Methyl tert-butyl ether	ND		0.047	0.028	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
Naphthalene	**0.22**		0.19	0.026	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
o-Xylene	ND		0.19	0.022	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1
Toluene	ND		0.094	0.042	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1

Client Sample ID: GEI055-B2(5-6.5)
Lab Sample ID: 590-22488-6
Date Collected: 12/12/23 14:13
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 91.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	**0.092**	**J**	0.56	0.049	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*79 - 124*	*12/19/23 11:19*	*12/19/23 17:38*	*1*
4-Bromofluorobenzene (Surr)	*101*		*66 - 129*	*12/19/23 11:19*	*12/19/23 17:38*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 120*	*12/19/23 11:19*	*12/19/23 17:38*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*	*12/19/23 11:19*	*12/19/23 17:38*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**72**		4.7	1.7	mg/Kg	☼	12/19/23 11:19	12/19/23 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 17:38*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.084	0.037	ug/Kg	☼	12/22/23 10:10	12/22/23 17:45	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**75**		11	4.5	mg/Kg	☼	12/18/23 10:18	12/18/23 21:29	1
Residual Range Organics (RRO) (C25-C36)	**36**		27	5.4	mg/Kg	☼	12/18/23 10:18	12/18/23 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*12/18/23 10:18*	*12/18/23 21:29*	*1*
n-Triacontane-d62	*101*		*50 - 150*	*12/18/23 10:18*	*12/18/23 21:29*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.3**	**J**	2.5	1.2	mg/Kg	☼	12/27/23 10:24	12/27/23 14:41	1

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-7
Date Collected: 12/12/23 12:00
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 84.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.13	0.029	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
Benzene	ND		0.027	0.013	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
Ethylbenzene	**0.17**		0.13	0.021	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
m,p-Xylene	**0.47**	**J**	0.53	0.038	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
Methyl tert-butyl ether	ND		0.066	0.040	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
Naphthalene	**0.75**		0.27	0.037	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
o-Xylene	**0.060**	**J**	0.27	0.031	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
Toluene	ND		0.13	0.060	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1
Xylenes, Total	**0.53**	**J**	0.80	0.069	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*79 - 124*	*12/19/23 11:19*	*12/19/23 18:00*	*1*

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-7
Date Collected: 12/12/23 12:00
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 84.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*66 - 129*	*12/19/23 11:19*	*12/19/23 18:00*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*	*12/19/23 11:19*	*12/19/23 18:00*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*	*12/19/23 11:19*	*12/19/23 18:00*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**160**		6.6	2.4	mg/Kg	☼	12/19/23 11:19	12/19/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 18:00*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.091	0.040	ug/Kg	☼	12/22/23 10:10	12/22/23 18:02	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**7.5**	**J**	12	4.9	mg/Kg	☼	12/18/23 10:18	12/18/23 21:51	1
Residual Range Organics (RRO) (C25-C36)	ND		29	5.9	mg/Kg	☼	12/18/23 10:18	12/18/23 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*12/18/23 10:18*	*12/18/23 21:51*	*1*
n-Triacontane-d62	*101*		*50 - 150*	*12/18/23 10:18*	*12/18/23 21:51*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.4**		2.3	1.1	mg/Kg	☼	12/27/23 10:24	12/27/23 14:45	1

Client Sample ID: GEI055-B5(5-6.5)
Lab Sample ID: 590-22488-9
Date Collected: 12/12/23 10:53
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 87.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.11	0.023	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
Benzene	ND		0.021	0.011	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
Ethylbenzene	ND		0.11	0.017	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
m,p-Xylene	ND		0.42	0.030	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
Methyl tert-butyl ether	ND		0.053	0.032	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
Naphthalene	**0.033**	**J**	0.21	0.029	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
o-Xylene	ND		0.21	0.024	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
Toluene	ND		0.11	0.047	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1
Xylenes, Total	ND		0.63	0.054	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*79 - 124*	*12/19/23 11:19*	*12/19/23 18:21*	*1*
4-Bromofluorobenzene (Surr)	*112*		*66 - 129*	*12/19/23 11:19*	*12/19/23 18:21*	*1*
Dibromofluoromethane (Surr)	*112*		*80 - 120*	*12/19/23 11:19*	*12/19/23 18:21*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*	*12/19/23 11:19*	*12/19/23 18:21*	*1*

Client Sample ID: GEI055-B5(5-6.5)
Lab Sample ID: 590-22488-9

Date Collected: 12/12/23 10:53
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 87.0

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	74		5.3	1.9	mg/Kg	☼	12/19/23 11:19	12/19/23 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 18:21*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.091	0.040	ug/Kg	☼	12/22/23 10:10	12/22/23 18:18	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	460		55	23	mg/Kg	☼	12/18/23 10:18	12/18/23 22:12	5
Residual Range Organics (RRO) (C25-C36)	420		140	28	mg/Kg	☼	12/18/23 10:18	12/18/23 22:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*50 - 150*	*12/18/23 10:18*	*12/18/23 22:12*	*5*
n-Triacontane-d62	*107*		*50 - 150*	*12/18/23 10:18*	*12/18/23 22:12*	*5*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.7		2.4	1.2	mg/Kg	☼	12/27/23 10:24	12/27/23 14:50	1

Client Sample ID: GEI055-B6(2.5-4)
Lab Sample ID: 590-22488-10

Date Collected: 12/13/23 09:06
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 80.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.14	0.030	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
Benzene	ND		0.028	0.014	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
Ethylbenzene	ND		0.14	0.022	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
m,p-Xylene	ND		0.56	0.040	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
Methyl tert-butyl ether	ND		0.069	0.042	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
Naphthalene	ND		0.28	0.039	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
o-Xylene	ND		0.28	0.032	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
Toluene	ND		0.14	0.063	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1
Xylenes, Total	ND		0.83	0.072	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*79 - 124*	*12/19/23 11:19*	*12/19/23 18:43*	*1*
4-Bromofluorobenzene (Surr)	*99*		*66 - 129*	*12/19/23 11:19*	*12/19/23 18:43*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 120*	*12/19/23 11:19*	*12/19/23 18:43*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*	*12/19/23 11:19*	*12/19/23 18:43*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	7.9		6.9	2.5	mg/Kg	☼	12/19/23 11:19	12/19/23 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 18:43*	*1*

Client Sample ID: GEI055-B6(2.5-4)
Lab Sample ID: 590-22488-10
Date Collected: 12/13/23 09:06
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 80.4

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.096	0.042	ug/Kg	☼	12/22/23 10:10	12/22/23 18:35	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**58**	**J**	60	25	mg/Kg	☼	12/18/23 10:18	12/18/23 22:33	5
Residual Range Organics (RRO) (C25-C36)	**310**		150	30	mg/Kg	☼	12/18/23 10:18	12/18/23 22:33	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*12/18/23 10:18*	*12/18/23 22:33*	*5*
n-Triacontane-d62	*103*		*50 - 150*	*12/18/23 10:18*	*12/18/23 22:33*	*5*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**7.2**		2.6	1.3	mg/Kg	☼	12/27/23 10:24	12/27/23 14:54	1

Client Sample ID: GEI055-B1-121223
Lab Sample ID: 590-22488-12
Date Collected: 12/12/23 15:25
Matrix: Water
Date Received: 12/13/23 15:54

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.31	ug/L			12/14/23 21:37	1
Benzene	ND		0.40	0.093	ug/L			12/14/23 21:37	1
Ethylbenzene	**2.9**		1.0	0.20	ug/L			12/14/23 21:37	1
m,p-Xylene	**0.64**	**J**	2.0	0.28	ug/L			12/14/23 21:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/23 21:37	1
o-Xylene	ND		1.0	0.16	ug/L			12/14/23 21:37	1
Toluene	ND		1.0	0.31	ug/L			12/14/23 21:37	1
Xylenes, Total	**0.64**	**J**	3.0	0.44	ug/L			12/14/23 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*12/14/23 21:37*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 120*		*12/14/23 21:37*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 123*		*12/14/23 21:37*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/14/23 21:37*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**260**		150	54	ug/L			12/14/23 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*68.7 - 141*		*12/14/23 21:37*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		12/22/23 09:26	12/22/23 14:43	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**0.21**	**J**	0.24	0.11	mg/L		12/15/23 07:53	12/15/23 17:26	1

Client Sample ID: GEI055-B1-121223
Lab Sample ID: 590-22488-12
Date Collected: 12/12/23 15:25
Matrix: Water
Date Received: 12/13/23 15:54

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Residual Range Organics (RRO) (C25-C36)	ND		0.39	0.12	mg/L		12/15/23 07:53	12/15/23 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*12/15/23 07:53*	*12/15/23 17:26*	*1*
n-Triacontane-d62	*102*		*50 - 150*	*12/15/23 07:53*	*12/15/23 17:26*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		12/18/23 10:30	12/18/23 15:14	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		12/18/23 17:27	12/19/23 13:06	1

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-13
Date Collected: 12/12/23 15:00
Matrix: Water
Date Received: 12/13/23 15:54

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.31	ug/L			12/14/23 22:21	1
Benzene	ND		0.40	0.093	ug/L			12/14/23 22:21	1
Ethylbenzene	**2.6**		1.0	0.20	ug/L			12/14/23 22:21	1
m,p-Xylene	**0.57**	**J**	2.0	0.28	ug/L			12/14/23 22:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/23 22:21	1
o-Xylene	ND		1.0	0.16	ug/L			12/14/23 22:21	1
Toluene	ND		1.0	0.31	ug/L			12/14/23 22:21	1
Xylenes, Total	**0.57**	**J**	3.0	0.44	ug/L			12/14/23 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*12/14/23 22:21*	*1*
4-Bromofluorobenzene (Surr)	*101*		*76 - 120*		*12/14/23 22:21*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 123*		*12/14/23 22:21*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/14/23 22:21*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**100**	**J**	150	54	ug/L			12/15/23 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*68.7 - 141*		*12/15/23 14:47*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		12/22/23 09:26	12/22/23 15:00	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**0.20**	**J**	0.23	0.11	mg/L		12/15/23 07:53	12/15/23 17:47	1
Residual Range Organics (RRO) (C25-C36)	ND		0.39	0.12	mg/L		12/15/23 07:53	12/15/23 17:47	1

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-13
Date Collected: 12/12/23 15:00
Matrix: Water
Date Received: 12/13/23 15:54

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*12/15/23 07:53*	*12/15/23 17:47*	*1*
n-Triacontane-d62	*107*		*50 - 150*	*12/15/23 07:53*	*12/15/23 17:47*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		12/18/23 10:30	12/18/23 15:19	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		12/18/23 17:27	12/19/23 13:11	1

Client Sample ID: Trip Blank
Lab Sample ID: 590-22488-14
Date Collected: 12/12/23 00:00
Matrix: Solid
Date Received: 12/13/23 15:54

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.10	0.022	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
Benzene	ND		0.020	0.010	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
Naphthalene	ND		0.20	0.028	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
o-Xylene	ND		0.20	0.023	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
Toluene	ND		0.10	0.045	mg/Kg		12/19/23 11:19	12/19/23 19:05	1
Xylenes, Total	ND		0.60	0.052	mg/Kg		12/19/23 11:19	12/19/23 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*79 - 124*	*12/19/23 11:19*	*12/19/23 19:05*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 129*	*12/19/23 11:19*	*12/19/23 19:05*	*1*
Dibromofluoromethane (Surr)	*112*		*80 - 120*	*12/19/23 11:19*	*12/19/23 19:05*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*	*12/19/23 11:19*	*12/19/23 19:05*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		5.0	1.8	mg/Kg		12/19/23 11:19	12/19/23 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 19:05*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.078	0.034	ug/Kg		12/22/23 10:10	12/22/23 18:51	1

Client Sample ID: Trip Blank
Lab Sample ID: 590-22488-15
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 15:54

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.31	ug/L			12/14/23 22:43	1
Benzene	ND		0.40	0.093	ug/L			12/14/23 22:43	1

Client Sample ID: Trip Blank
Lab Sample ID: 590-22488-15
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 15:54

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.20	ug/L			12/14/23 22:43	1
m,p-Xylene	ND		2.0	0.28	ug/L			12/14/23 22:43	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/23 22:43	1
o-Xylene	ND		1.0	0.16	ug/L			12/14/23 22:43	1
Toluene	ND		1.0	0.31	ug/L			12/14/23 22:43	1
Xylenes, Total	ND		3.0	0.44	ug/L			12/14/23 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*12/14/23 22:43*	*1*
4-Bromofluorobenzene (Surr)	*103*		*76 - 120*		*12/14/23 22:43*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 123*		*12/14/23 22:43*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*12/14/23 22:43*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		150	54	ug/L			12/15/23 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*68.7 - 141*		*12/15/23 15:08*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		12/22/23 09:26	12/22/23 15:16	1

Client Sample ID: Comp-IDW:121323
Lab Sample ID: 590-22488-16
Date Collected: 12/13/23 09:45
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 80.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.2**		0.96	0.38	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1
Barium	**160**		0.96	0.26	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1
Cadmium	ND		0.77	0.046	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1
Chromium	**27**		0.96	0.14	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1
Lead	**4.0**		2.3	1.1	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1
Selenium	ND		3.9	2.3	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1
Silver	ND		0.96	0.22	mg/Kg	☼	12/27/23 10:24	12/27/23 14:58	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**63**	**B**	45	11	ug/Kg	☼	12/27/23 10:18	12/27/23 16:19	1

Client Sample ID: GEI055-B3(5-6.5)
Lab Sample ID: 590-22488-17
Date Collected: 12/12/23 15:19
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 91.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.094	0.020	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
Benzene	ND		0.019	0.0094	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
Ethylbenzene	ND		0.094	0.015	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
m,p-Xylene	ND		0.38	0.027	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1

Client Sample ID: GEI055-B3(5-6.5)
Date Collected: 12/12/23 15:19
Date Received: 12/13/23 15:54

Lab Sample ID: 590-22488-17
Matrix: Solid
Percent Solids: 91.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.047	0.028	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
Naphthalene	ND		0.19	0.026	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
o-Xylene	ND		0.19	0.022	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
Toluene	ND		0.094	0.042	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1
Xylenes, Total	ND		0.56	0.049	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*79 - 124*	*12/19/23 11:19*	*12/19/23 19:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*66 - 129*	*12/19/23 11:19*	*12/19/23 19:26*	*1*
Dibromofluoromethane (Surr)	*114*		*80 - 120*	*12/19/23 11:19*	*12/19/23 19:26*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*	*12/19/23 11:19*	*12/19/23 19:26*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		4.7	1.7	mg/Kg	☼	12/19/23 11:19	12/19/23 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 19:26*	*1*

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.081	0.035	ug/Kg	☼	12/22/23 10:10	12/28/23 11:07	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	**12**		11	4.5	mg/Kg	☼	12/18/23 10:18	12/18/23 22:55	1
Residual Range Organics (RRO) (C25-C36)	**35**		27	5.4	mg/Kg	☼	12/18/23 10:18	12/18/23 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*12/18/23 10:18*	*12/18/23 22:55*	*1*
n-Triacontane-d62	*102*		*50 - 150*	*12/18/23 10:18*	*12/18/23 22:55*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**3.1**		2.2	1.1	mg/Kg	☼	12/27/23 10:24	12/27/23 15:02	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-45078/8
Matrix: Water
Analysis Batch: 45078

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.31	ug/L			12/14/23 14:26	1
Benzene	ND		0.40	0.093	ug/L			12/14/23 14:26	1
Ethylbenzene	ND		1.0	0.20	ug/L			12/14/23 14:26	1
m,p-Xylene	ND		2.0	0.28	ug/L			12/14/23 14:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/14/23 14:26	1
o-Xylene	ND		1.0	0.16	ug/L			12/14/23 14:26	1
Toluene	ND		1.0	0.31	ug/L			12/14/23 14:26	1
Xylenes, Total	ND		3.0	0.44	ug/L			12/14/23 14:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*12/14/23 14:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*76 - 120*		*12/14/23 14:26*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 123*		*12/14/23 14:26*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/14/23 14:26*	*1*

Lab Sample ID: LCS 590-45078/1005
Matrix: Water
Analysis Batch: 45078

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	10.0	10.2		ug/L		102	80 - 120
Benzene	10.0	10.2		ug/L		102	80 - 120
Ethylbenzene	10.0	10.5		ug/L		105	80 - 122
m,p-Xylene	10.0	10.7		ug/L		107	80 - 125
Methyl tert-butyl ether	10.0	11.2		ug/L		112	68 - 134
o-Xylene	10.0	10.6		ug/L		106	80 - 130
Toluene	10.0	9.83		ug/L		98	80 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*76 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 590-45078/6
Matrix: Water
Analysis Batch: 45078

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	10.0	10.2		ug/L		102	80 - 120	1	14
Benzene	10.0	9.86		ug/L		99	80 - 120	3	15
Ethylbenzene	10.0	9.90		ug/L		99	80 - 122	5	35
m,p-Xylene	10.0	10.3		ug/L		103	80 - 125	4	35
Methyl tert-butyl ether	10.0	12.0		ug/L		120	68 - 134	7	18
o-Xylene	10.0	10.3		ug/L		103	80 - 130	3	35
Toluene	10.0	9.46		ug/L		95	80 - 129	4	35

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 590-45078/6
Matrix: Water
Analysis Batch: 45078

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*76 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 123*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 590-45151/1-A
Matrix: Solid
Analysis Batch: 45173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.10	0.022	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
Benzene	ND		0.020	0.010	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
Naphthalene	ND		0.20	0.028	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
o-Xylene	ND		0.20	0.023	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
Toluene	ND		0.10	0.045	mg/Kg		12/19/23 11:19	12/20/23 14:07	1
Xylenes, Total	ND		0.60	0.052	mg/Kg		12/19/23 11:19	12/20/23 14:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*101*		*79 - 124*	*12/19/23 11:19*	*12/20/23 14:07*	*1*
4-Bromofluorobenzene (Surr)	*94*		*66 - 129*	*12/19/23 11:19*	*12/20/23 14:07*	*1*
Dibromofluoromethane (Surr)	*112*		*80 - 120*	*12/19/23 11:19*	*12/20/23 14:07*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*	*12/19/23 11:19*	*12/20/23 14:07*	*1*

Lab Sample ID: LCS 590-45151/2-A
Matrix: Solid
Analysis Batch: 45153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	0.500	0.462		mg/Kg		92	77 - 126
Benzene	0.500	0.494		mg/Kg		99	80 - 128
Ethylbenzene	0.500	0.537		mg/Kg		107	80 - 127
m,p-Xylene	0.500	0.537		mg/Kg		107	80 - 131
Methyl tert-butyl ether	0.500	0.564		mg/Kg		113	69 - 132
Naphthalene	0.500	0.450		mg/Kg		90	57 - 131
o-Xylene	0.500	0.536		mg/Kg		107	78 - 128
Toluene	0.500	0.526		mg/Kg		105	79 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*96*		*79 - 124*
4-Bromofluorobenzene (Surr)	*97*		*66 - 129*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Lab Sample ID: MB 590-45079/8
Matrix: Water
Analysis Batch: 45079

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		150	54	ug/L			12/14/23 14:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*68.7 - 141*		*12/14/23 14:26*	*1*

Lab Sample ID: LCS 590-45079/1007
Matrix: Water
Analysis Batch: 45079

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			1000	916		ug/L		92	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*68.7 - 141*

Lab Sample ID: LCSD 590-45079/1018
Matrix: Water
Analysis Batch: 45079

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline			1000	870		ug/L		87	80 - 120	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*68.7 - 141*

Lab Sample ID: MB 590-45101/10
Matrix: Water
Analysis Batch: 45101

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		150	54	ug/L			12/15/23 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*68.7 - 141*		*12/15/23 13:42*	*1*

Lab Sample ID: LCS 590-45101/1009
Matrix: Water
Analysis Batch: 45101

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			1000	899		ug/L		90	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*68.7 - 141*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Lab Sample ID: LCSD 590-45101/1015
Matrix: Water
Analysis Batch: 45101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline			1000	860		ug/L		86	80 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*68.7 - 141*

Lab Sample ID: MB 590-45151/1-A
Matrix: Solid
Analysis Batch: 45152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		5.0	1.8	mg/Kg		12/19/23 11:19	12/19/23 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*41.5 - 162*	*12/19/23 11:19*	*12/19/23 14:01*	*1*

Lab Sample ID: LCS 590-45151/3-A
Matrix: Solid
Analysis Batch: 45152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45151

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			50.0	50.8		mg/Kg		102	74.4 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*41.5 - 162*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 590-45197/2-A
Matrix: Water
Analysis Batch: 45200

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45197

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		12/22/23 09:26	12/22/23 13:21	1

Lab Sample ID: LCS 590-45197/3-A
Matrix: Water
Analysis Batch: 45200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45197

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)			0.125	0.0956		ug/L		77	60 - 140		

Lab Sample ID: LCSD 590-45197/4-A
Matrix: Water
Analysis Batch: 45200

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45197

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)			0.125	0.101		ug/L		81	60 - 140	5	20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 590-45198/1-A
Matrix: Solid
Analysis Batch: 45200

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.080	0.035	ug/Kg		12/22/23 10:10	12/22/23 15:33	1

Lab Sample ID: LCS 590-45198/2-A
Matrix: Solid
Analysis Batch: 45200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	1.00	1.19		ug/Kg		119	60 - 140

Lab Sample ID: 590-22488-2 MS
Matrix: Solid
Analysis Batch: 45200

Client Sample ID: GEI055-B1(10-11.5)
Prep Type: Total/NA
Prep Batch: 45198

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	ND		1.05	0.849		ug/Kg	☼	81	60 - 140

Lab Sample ID: 590-22488-2 MSD
Matrix: Solid
Analysis Batch: 45200

Client Sample ID: GEI055-B1(10-11.5)
Prep Type: Total/NA
Prep Batch: 45198

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND		1.03	0.809		ug/Kg	☼	79	60 - 140	5	20

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-45088/1-A
Matrix: Water
Analysis Batch: 45096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45088

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24	0.11	mg/L		12/15/23 07:53	12/15/23 12:51	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40	0.12	mg/L		12/15/23 07:53	12/15/23 12:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*103*		*50 - 150*	*12/15/23 07:53*	*12/15/23 12:51*	*1*
n-Triacontane-d62	*104*		*50 - 150*	*12/15/23 07:53*	*12/15/23 12:51*	*1*

Lab Sample ID: LCS 590-45088/2-A
Matrix: Water
Analysis Batch: 45096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (DRO) (C10-C25)	1.60	1.51		mg/L		94	50 - 150
Residual Range Organics (RRO) (C25-C36)	1.60	1.69		mg/L		106	50 - 150

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-45088/2-A
Matrix: Water
Analysis Batch: 45096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45088

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	99		50 - 150
n-Triacontane-d62	106		50 - 150

Lab Sample ID: LCSD 590-45088/3-A
Matrix: Water
Analysis Batch: 45096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45088

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)			1.60	1.45		mg/L		91	50 - 150	4	25
Residual Range Organics (RRO) (C25-C36)			1.60	1.68		mg/L		105	50 - 150	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	101		50 - 150
n-Triacontane-d62	103		50 - 150

Lab Sample ID: MB 590-45126/1-A
Matrix: Solid
Analysis Batch: 45129

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45126

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		10	4.2	mg/Kg		12/18/23 10:18	12/18/23 18:18	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg		12/18/23 10:18	12/18/23 18:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	95		50 - 150	12/18/23 10:18	12/18/23 18:18	1
n-Triacontane-d62	95		50 - 150	12/18/23 10:18	12/18/23 18:18	1

Lab Sample ID: LCS 590-45126/2-A
Matrix: Solid
Analysis Batch: 45129

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (DRO) (C10-C25)			66.7	73.2		mg/Kg		110	50 - 150		
Residual Range Organics (RRO) (C25-C36)			66.7	71.4		mg/Kg		107	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	100		50 - 150
n-Triacontane-d62	97		50 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-45224/2-A
Matrix: Solid
Analysis Batch: 45233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		12/27/23 10:23	12/27/23 13:39	1
Barium	ND		1.3	0.34	mg/Kg		12/27/23 10:23	12/27/23 13:39	1
Cadmium	ND		1.0	0.059	mg/Kg		12/27/23 10:23	12/27/23 13:39	1
Chromium	ND		1.3	0.18	mg/Kg		12/27/23 10:23	12/27/23 13:39	1
Lead	ND		3.0	1.5	mg/Kg		12/27/23 10:23	12/27/23 13:39	1
Selenium	ND		5.0	3.0	mg/Kg		12/27/23 10:23	12/27/23 13:39	1
Silver	ND		1.3	0.29	mg/Kg		12/27/23 10:23	12/27/23 13:39	1

Lab Sample ID: LCS 590-45224/1-A
Matrix: Solid
Analysis Batch: 45233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	50.0	43.8		mg/Kg		88	80 - 120
Barium	50.0	45.4		mg/Kg		91	80 - 120
Cadmium	25.0	22.7		mg/Kg		91	80 - 120
Chromium	25.0	22.7		mg/Kg		91	80 - 120
Lead	25.0	24.1		mg/Kg		96	80 - 120
Selenium	50.0	43.1		mg/Kg		86	80 - 120
Silver	2.50	2.35		mg/Kg		94	80 - 120

Lab Sample ID: MB 590-45128/2-A
Matrix: Water
Analysis Batch: 45138

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 45128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		12/18/23 10:30	12/18/23 14:01	1

Lab Sample ID: LCS 590-45128/1-A
Matrix: Water
Analysis Batch: 45138

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 45128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.500	0.510		mg/L		102	80 - 120

Lab Sample ID: MB 590-45148/2-B
Matrix: Water
Analysis Batch: 45163

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 45147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		12/18/23 17:27	12/19/23 11:02	1

Lab Sample ID: LCS 590-45148/1-B
Matrix: Water
Analysis Batch: 45163

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 45147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.500	0.556		mg/L		111	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-45222/9-A
Matrix: Solid
Analysis Batch: 45236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45222

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	19.0	J	50	12	ug/Kg		12/27/23 10:17	12/27/23 16:04	1

Lab Sample ID: LCS 590-45222/8-A
Matrix: Solid
Analysis Batch: 45236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45222

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			200	240		ug/Kg		120	80 - 120		

Lab Chronicle

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Client Sample ID: GEI055-B1(10-11.5)
Lab Sample ID: 590-22488-2
Date Collected: 12/12/23 13:31
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: GEI055-B1(10-11.5)
Lab Sample ID: 590-22488-2
Date Collected: 12/12/23 13:31
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.362 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 16:33	JSP	EET SPK
Total/NA	Prep	5035			6.362 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 16:33	JSP	EET SPK
Total/NA	Prep	8011			10.18 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 16:39	NMI	EET SPK
Total/NA	Prep	3550C			15.30 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45129	12/18/23 20:47	NMI	EET SPK
Total/NA	Prep	3050B			1.56 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:33	AMB	EET SPK

Client Sample ID: GEI055-B4(5-6.5)
Lab Sample ID: 590-22488-4
Date Collected: 12/12/23 11:40
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: GEI055-B4(5-6.5)
Lab Sample ID: 590-22488-4
Date Collected: 12/12/23 11:40
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12.374 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 16:55	JSP	EET SPK
Total/NA	Prep	5035			12.374 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 16:55	JSP	EET SPK
Total/NA	Prep	8011			10.42 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 17:29	NMI	EET SPK
Total/NA	Prep	3550C			15.41 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45129	12/18/23 21:08	NMI	EET SPK
Total/NA	Prep	3050B			1.52 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:37	AMB	EET SPK

Client Sample ID: GEI055-B2(5-6.5)
Lab Sample ID: 590-22488-6
Date Collected: 12/12/23 14:13
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: GEI055-B2(5-6.5)
Lab Sample ID: 590-22488-6
Date Collected: 12/12/23 14:13
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12.988 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 17:38	JSP	EET SPK
Total/NA	Prep	5035			12.988 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 17:38	JSP	EET SPK
Total/NA	Prep	8011			10.40 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 17:45	NMI	EET SPK
Total/NA	Prep	3550C			15.14 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45129	12/18/23 21:29	NMI	EET SPK
Total/NA	Prep	3050B			1.30 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:41	AMB	EET SPK

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-7
Date Collected: 12/12/23 12:00
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-7
Date Collected: 12/12/23 12:00
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10.349 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 18:00	JSP	EET SPK
Total/NA	Prep	5035			10.349 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 18:00	JSP	EET SPK
Total/NA	Prep	8011			10.40 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 18:02	NMI	EET SPK
Total/NA	Prep	3550C			15.09 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45129	12/18/23 21:51	NMI	EET SPK
Total/NA	Prep	3050B			1.55 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:45	AMB	EET SPK

Client Sample ID: GEI055-B5(5-6.5)
Lab Sample ID: 590-22488-9
Date Collected: 12/12/23 10:53
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: GEI055-B5(5-6.5)
Lab Sample ID: 590-22488-9
Date Collected: 12/12/23 10:53
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12.729 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 18:21	JSP	EET SPK
Total/NA	Prep	5035			12.729 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 18:21	JSP	EET SPK
Total/NA	Prep	8011			10.15 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 18:18	NMI	EET SPK
Total/NA	Prep	3550C			15.64 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		5	1 mL	1 mL	45129	12/18/23 22:12	NMI	EET SPK
Total/NA	Prep	3050B			1.44 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:50	AMB	EET SPK

Client Sample ID: GEI055-B6(2.5-4)
Lab Sample ID: 590-22488-10
Date Collected: 12/13/23 09:06
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: GEI055-B6(2.5-4)
Lab Sample ID: 590-22488-10
Date Collected: 12/13/23 09:06
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10.871 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 18:43	JSP	EET SPK
Total/NA	Prep	5035			10.871 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 18:43	JSP	EET SPK
Total/NA	Prep	8011			10.38 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 18:35	NMI	EET SPK
Total/NA	Prep	3550C			15.55 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		5	1 mL	1 mL	45129	12/18/23 22:33	NMI	EET SPK
Total/NA	Prep	3050B			1.43 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:54	AMB	EET SPK

Lab Chronicle

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Client Sample ID: GEI055-B1-121223
Lab Sample ID: 590-22488-12
Date Collected: 12/12/23 15:25
Matrix: Water
Date Received: 12/13/23 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	45078	12/14/23 21:37	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	45079	12/14/23 21:37	JSP	EET SPK
Total/NA	Prep	8011			80 mL	2 mL	45197	12/22/23 09:26	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 14:43	NMI	EET SPK
Total/NA	Prep	3510C			253.6 mL	2 mL	45088	12/15/23 07:53	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45096	12/15/23 17:26	NMI	EET SPK
Dissolved	Filtration	FILTRATION			250 mL	250 mL	45148	12/18/23 17:26	AMB	EET SPK
Dissolved	Prep	3005A			50 mL	50 mL	45147	12/18/23 17:27	AMB	EET SPK
Dissolved	Analysis	6010D		1			45163	12/19/23 13:06	AMB	EET SPK
Total Recoverable	Prep	3005A			50 mL	50 mL	45128	12/18/23 10:30	AMB	EET SPK
Total Recoverable	Analysis	6010D		1			45149	12/18/23 15:14	AMB	EET SPK

Client Sample ID: DUP:121223
Lab Sample ID: 590-22488-13
Date Collected: 12/12/23 15:00
Matrix: Water
Date Received: 12/13/23 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	45078	12/14/23 22:21	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	45101	12/15/23 14:47	JSP	EET SPK
Total/NA	Prep	8011			80 mL	2 mL	45197	12/22/23 09:26	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 15:00	NMI	EET SPK
Total/NA	Prep	3510C			256.4 mL	2 mL	45088	12/15/23 07:53	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45096	12/15/23 17:47	NMI	EET SPK
Dissolved	Filtration	FILTRATION			250 mL	250 mL	45148	12/18/23 17:26	AMB	EET SPK
Dissolved	Prep	3005A			50 mL	50 mL	45147	12/18/23 17:27	AMB	EET SPK
Dissolved	Analysis	6010D		1			45163	12/19/23 13:11	AMB	EET SPK
Total Recoverable	Prep	3005A			50 mL	50 mL	45128	12/18/23 10:30	AMB	EET SPK
Total Recoverable	Analysis	6010D		1			45149	12/18/23 15:19	AMB	EET SPK

Client Sample ID: Trip Blank
Lab Sample ID: 590-22488-14
Date Collected: 12/12/23 00:00
Matrix: Solid
Date Received: 12/13/23 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10.033 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 19:05	JSP	EET SPK
Total/NA	Prep	5035			10.033 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 19:05	JSP	EET SPK
Total/NA	Prep	8011			10.25 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 18:51	NMI	EET SPK

Lab Chronicle

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Client Sample ID: Trip Blank
Lab Sample ID: 590-22488-15
Date Collected: 12/12/23 00:00
Matrix: Water
Date Received: 12/13/23 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	45078	12/14/23 22:43	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	45101	12/15/23 15:08	JSP	EET SPK
Total/NA	Prep	8011			80 mL	2 mL	45197	12/22/23 09:26	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45200	12/22/23 15:16	NMI	EET SPK

Client Sample ID: Comp-IDW:121323
Lab Sample ID: 590-22488-16
Date Collected: 12/13/23 09:45
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: Comp-IDW:121323
Lab Sample ID: 590-22488-16
Date Collected: 12/13/23 09:45
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.62 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 14:58	AMB	EET SPK
Total/NA	Prep	7471B			0.69 g	50 mL	45222	12/27/23 10:18	AMB	EET SPK
Total/NA	Analysis	7471B		1			45236	12/27/23 16:19	AMB	EET SPK

Client Sample ID: GEI055-B3(5-6.5)
Lab Sample ID: 590-22488-17
Date Collected: 12/12/23 15:19
Matrix: Solid
Date Received: 12/13/23 15:54

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			45121	12/18/23 09:33	MRV	EET SPK

Client Sample ID: GEI055-B3(5-6.5)
Lab Sample ID: 590-22488-17
Date Collected: 12/12/23 15:19
Matrix: Solid
Date Received: 12/13/23 15:54
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13.017 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45153	12/19/23 19:26	JSP	EET SPK
Total/NA	Prep	5035			13.017 g	10 mL	45151	12/19/23 11:19	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	0.86 mL	43 mL	45152	12/19/23 19:26	JSP	EET SPK
Total/NA	Prep	8011			10.84 g	2 mL	45198	12/22/23 10:10	MRV	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	45239	12/28/23 11:07	NMI	EET SPK
Total/NA	Prep	3550C			15.21 g	5 mL	45126	12/18/23 10:18	MRV	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	45129	12/18/23 22:55	NMI	EET SPK
Total/NA	Prep	3050B			1.49 g	50 mL	45224	12/27/23 10:24	AMB	EET SPK
Total/NA	Analysis	6010D		1	1.0 mL	1.0 mL	45233	12/27/23 15:02	AMB	EET SPK

Lab Chronicle

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Laboratory References:

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

Accreditation/Certification Summary

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: GeoEngineers Inc
Job ID: 590-22488-1
Project/Site: Anatone Maintenance Shop/0504-198-00

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC/MS)	NWTPH	EET SPK
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	EET SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	EET SPK
6010D	Metals (ICP)	SW846	EET SPK
7471B	Mercury (CVAA)	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SPK
3050B	Preparation, Metals	SW846	EET SPK
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SPK
3550C	Ultrasonic Extraction	SW846	EET SPK
5030C	Purge and Trap	SW846	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK
7471B	Preparation, Mercury	SW846	EET SPK
8011	Microextraction	SW846	EET SPK
FILTRATION	Sample Filtration	None	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

None = None

NWTPH = Northwest Total Petroleum Hydrocarbon

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

Laboratory References:

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

CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

DATE 12 13 23
PAGE ___ OF ___
LAB
LAB NO

PROJECT NAME/LOCATION WSDOT Anatone Maintenance Site
PROJECT NUMBER 504-198-00
PROJECT MANAGER JDG
SAMPLED BY MMS

ANALYSIS REQUIRED

SAMPLE IDENTIFICATION: LAB	SAMPLE IDENTIFICATION: GEOENGINEERS	SAMPLE COLLECTION: DATE	SAMPLE COLLECTION: TIME	SAMPLE COLLECTION: MATRIX	# OF JARS	NWTPH-Gx	BTEX, EDC, MTBE, By 8260D	EDB By 8011	NWTPH-Dx	Lead by 6010	Dissolved Lead by 6010 (Lab Filtered)	RCRA 8 metals by 6000/7000						NOTES/COMMENTS (Preserved, filtered, etc.)
	GE1055-B1(5-6.5)	12.12.23	1319	S														Hold
	GE1055-B1(10-11.5)	12.12.23	1331			X	X	X	X	X								
	GE1055-B4(2.5-4)	12.12.23	1130															Hold
	GE1055-B4(5-6.5)	12.12.23	1146			X	X	X	X	X								
	GE1055-B2(2.5-4)	12.12.23	1404															Hold
	GE1055-B2(5-6.5)	12.12.23	1412			X	X	X	X	X								
	DUP 121223	12.12.23	1206			X	X	X	X	X								
	GE1055-B5(2.5-4)	12.12.23	1045															Hold
	GE1055-B5(5-6.5)	12.12.23	1053			X	X	X	X	X								
	GE1055-B6(2.5-4)	12.13.23	0906			X	X	X	X	X								
	GE1055-B6(5 [illegible])	12.13.23	0911															Hold

RELINQUISHED BY	RELINQUISHED BY	RELINQUISHED BY
FIRM GEI	FIRM	FIRM
SIGNATURE Morea Schofield	SIGNATURE	SIGNATURE
PRINTED NAME Morea Schofield	PRINTED NAME	PRINTED NAME
DATE 12 13 23 TIME 1554	DATE TIME	DATE TIME

RECEIVED BY	RECEIVED BY	RECEIVED BY
FIRM EETSPO	FIRM	FIRM
SIGNATURE [signature]	SIGNATURE	SIGNATURE
PRINTED NAME Macky Morris	PRINTED NAME	PRINTED NAME
DATE 12/13/23 TIME 1554	DATE TIME	DATE TIME

ADDITIONAL COMMENTS

4.9, 5.0 corr IR#26

590-22488 Chain of Custody

CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

DATE 12 13 23
PAGE OF
LAB
LAB NO

PROJECT NAME/LOCATION WSDOT Anatone Maintenance Site
PROJECT NUMBER 5021-198-00
PROJECT MANAGER JDG
SAMPLED BY MMS

SAMPLE IDENTIFICATION		SAMPLE COLLECTION			# OF	ANALYSIS REQUIRED												NOTES/COMMENTS
LAB	GEOENGINEERS	DATE	TIME	MATRIX	JARS	NWTPH-Gx	BTEX, EDB, MTBE By 8260D	EDB By 8011	NWTPH-Dx	Lead by 6010	Dissolved Lead By 6010 (Lab Filtered)	RCRA 8 metals by 6000-7000						(Preserved, filtered, etc.)
	GE1055 B1-121223	12 12 23	1525	W		X	X	X	X	X	X							
	DUP 121223	12 12 23	1500	W		X	X	X	X	X	X							
	Trip Blank	[redacted]		S		X	X	X										
	Trip Blank			W		X	X	X										
	COMP-IDW 121323	12 13 23	0945	S								X						
	GE1055-B3(5-6')	12 12 23	1519	S		X	X	X	X	X								
	GE1055-B3(25')	12 12 23	1512	S														Hold

RELINQUISHED BY	FIRM	RELINQUISHED BY	FIRM	RELINQUISHED BY	FIRM
SIGNATURE Morea Schofield	GEI	SIGNATURE		SIGNATURE	
PRINTED NAME Morea Schofield		PRINTED NAME		PRINTED NAME	
DATE 12 13 23 TIME 1554		DATE TIME		DATE TIME	
RECEIVED BY	**FIRM**	**RECEIVED BY**	**FIRM**	**RECEIVED BY**	**FIRM**
SIGNATURE	EET SPO	SIGNATURE		SIGNATURE	
PRINTED NAME Mackay Momo		PRINTED NAME		PRINTED NAME	
DATE 12/13/23 TIME 1554		DATE TIME		DATE TIME	

ADDITIONAL COMMENTS
4.9, 5.0 on 1 Rock

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-22488-1

Login Number: 22488
List Number: 1
Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

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.	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	

ATTACHMENT D
Report Limitations and Guidelines for Use

ATTACHMENT D
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 Washington State Department of Transportation (WSDOT) Anatone Maintenance Site facility located at State Route 129 (SR-129), Milepost (MP) 17.4 (west side) in Anatone, 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.

[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 Environmental Site Assessment (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.