

Site Assessment

Ag Supply Company of Wenatchee
1115 North Wenatchee Avenue
Wenatchee, Washington

for
Washington State Department of Ecology

September 27, 2023



GEOENGINEERS 
Earth Science + Technology

Site Assessment

Ag Supply Company of Wenatchee
1115 North Wenatchee Avenue
Wenatchee, Washington

for

Washington State Department of Ecology

September 27, 2023



523 East Second Avenue
Spokane, Washington 99202
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Site Assessment
Ag Supply Company of Wenatchee Site
Assessment
Wenatchee, Washington

File No. 0504-196-00

September 27, 2023

Prepared for:

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Central Regional Office
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Union Gap, Washington 98903

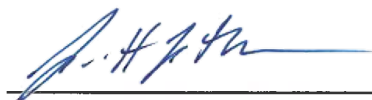
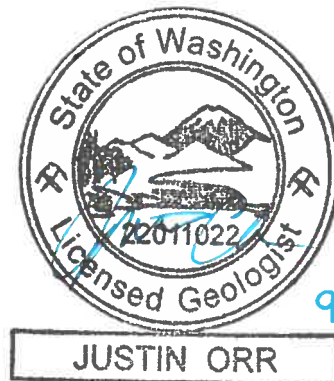
Attention: Chelsea Wisotzkey, LUST Site Manager

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Table of Contents

1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION AND BACKGROUND	1
2.1. Previous Site Investigations	1
3.0 FIELD INVESTIGATION ACTIVITIES	2
3.1. Soil Assessment	2
3.2. Subsurface Conditions	2
3.3. Investigation-Derived Waste	2
4.0 CHEMICAL ANALYTICAL RESULTS	2
5.0 SUMMARY AND CONCLUSIONS	3
6.0 LIMITATIONS	3
7.0 REFERENCES	3

LIST OF TABLES

Table 1. Chemical Analytical Results—Soil

LIST OF FIGURES

Figure 1. Vicinity Map

Figure 2. Site Plan

APPENDICES

Appendix A. Boring Logs

Figure A-1—Key to Exploration Logs

Figures A-2 through A-5—Logs of Borings

Appendix B. IDW Disposal Documentation

Appendix C. Chemical Analytical Laboratory Reports and Data Validation

Appendix D. Report Limitations and Guidelines for Use

1.0 INTRODUCTION

This report describes soil assessment activities conducted at the Ag Supply Company of Wenatchee facility (herein referred to as “site”) located at 1115 North Wenatchee Avenue in Wenatchee, Washington, as shown on the attached Vicinity Map, Figure 1. The Washington State Department of Ecology (Ecology) reference numbers for this site include: Facility Site ID 16422326 and Cleanup Site ID 4144.

This assessment report has been prepared by GeoEngineers, Inc. (GeoEngineers) for Ecology under Ecology Master Contract No. C1900044, task work assignment number GEI049. This report describes site history, field activities, observations and chemical analytical results associated with soil samples collected at the site. The purpose of this assessment was to determine if soil contamination related to the historic release of diesel from the aboveground storage tank (AST) system remains at the site.

2.0 SITE DESCRIPTION AND BACKGROUND

The Ag Supply Company of Wenatchee (Ag Supply) is a retail/agricultural supplier located on an approximately 3-acre parcel located at 1115 North Wenatchee Avenue in Wenatchee, Washington. Ag Supply sells gasoline, diesel fuel, propane, farm chemicals, hardware and pet supplies. The site is bounded by commercial properties to the north and south, BNSF railway tracks to the east, and North Wenatchee Avenue to the west. The western portion of the site is paved and includes commercial buildings, a fueling island and parking. The eastern portion of the site is generally unpaved and is used for parking and storage. Six aboveground storage tanks (AST) on a concrete pad are located near the center of the property. Site features are shown in Site Plan, Figure 2.

2.1. Previous Site Investigations

On January 18, 2000, approximately 275 gallons of dyed No. 1 diesel fuel were released from an AST into the secondary containment area. A mixture of diesel fuel and snowmelt water flowed into a sanitary sewer manhole. West Central Environmental Consultants (WCEC) conducted soil investigation activities including:

- Removing the top 6 inches of soil along the spill trace;
- Screening soil left in place along the spill trace for volatile organic vapors using a photoionization detector (PID), odors and staining; and
- Collecting a composite sample from soil left in place in the excavation along the spill trace and analyzing the sample for petroleum products.

Approximately 10 cubic yards of soil were excavated and disposed at the Wenatchee landfill. Petroleum products were not detected in the composite sample (WCEC 2000).

Review of geologic and groundwater conditions in the area indicated silty sand, silt and/or clay to at least 40 feet below ground surface (bgs). Based on our experience in the area, groundwater was anticipated to be approximately 45 to 50 feet bgs. The Columbia River is approximately 1,600 feet east of the site. Based on site topography, groundwater flow direction was anticipated to be toward the east.

3.0 FIELD INVESTIGATION ACTIVITIES

GeoEngineers advanced soil borings, collected soil samples from the borings, and submitted the samples for chemical analysis to assess soil conditions for potential contamination associated with the historic release of diesel fuel from the ASTs.

The following sections describe field activities including advancing direct-push soil borings, collection of soil samples, and a discussion of observed subsurface conditions. Based on site conditions, some modifications to the Work Plan (GeoEngineers 2023) were implemented as explained in the sections below.

3.1. Soil Assessment

Initial site reconnaissance occurred on March 20 and 22, 2023. During these site visits, site access was observed, and potential boring locations were marked. Site utilities located near the boring locations were identified and marked by Utilities Plus on March 22, 2023. Boring locations are shown in Figure 2.

GeoEngineers advanced four borings (GEI049-DP1 through GEI049-DP4) on July 15, 2023, with a direct-push drill rig. Boring logs are included in Appendix A, Boring Logs. The soil borings were advanced to 8 feet bgs. The Work Plan included a fifth boring to the west of the ASTs; however, after consulting with Ecology we determined that this boring was not near the historic release from the ASTs and, therefore, was not necessary to assess the site.

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), ranged between 0.2 parts per million (ppm) and 0.5 ppm in GEI049-DP1, and were not detected in GEI049-DP2 through GEI049-DP4. No sheens, odors or staining were observed.

GeoEngineers backfilled the borings with bentonite chips and completed the borings with concrete (GEI049-DP1) or surface soil (GEI049-DP2 through GEI049-DP4) to match the existing ground surface.

3.2. Subsurface Conditions

Soil samples recovered from GEI049-DP1 through GEI049-DP4 indicate the subsurface generally consists of gravel with silt and sand to approximately 1.5 feet bgs, and silty sand to 8 feet bgs (the final depth of the borings). Groundwater was not encountered at the exploration locations.

3.3. Investigation-Derived Waste

Soil cuttings from the borings were placed in a 55-gallon drum, labeled and stored near a large propane AST along the east side of the property per the owner's request, pending analysis and disposal. Able Cleanup Technologies (ACT) collected the investigation-derived waste (IDW) on August 24, 2023 and disposed the IDW at Waste Management's Graham Road Landfill in Spokane, Washington on August 25, 2023. ACT's disposal manifest is included in Appendix B, IDW Disposal Documentation.

4.0 CHEMICAL ANALYTICAL RESULTS

Four soil samples and one duplicate sample were submitted to Eurofins Environment Testing (Eurofins) for chemical analysis. Soil sample GEI049-DP1 (5.5-6) was submitted because soil from that depth interval had the highest concentration measured on the PID (0.5 ppm). Soil samples GEI049-DP2 (1.5-2),

GEI049-DP3 (1.5-2) and GEI049-DP4 (1.5-2) were submitted because field screening did not indicate the presence of contamination, so the sample closest to the surface was submitted from those borings as described in the Work Plan. The laboratory analytical report and a data validation report are included in Appendix C, Chemical Analytical Laboratory Reports and Data Validation. The samples were analyzed for the following contaminants of concern (COCs):

- Benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN) using Environmental Protection Agency (EPA) Method 8260D; and
- Diesel- and oil-range petroleum hydrocarbons using Northwest Method NWTPH-Dx.

Soil chemical analytical results are presented and compared to Washington State Model Toxics Control Act (MTCA) Method A cleanup levels for unrestricted land use in Table 1, Chemical Analytical Results—Soil. COCs were either not detected or were detected at concentrations less than their respective MTCA Method A cleanup levels.

5.0 SUMMARY AND CONCLUSIONS

Four direct-push soil borings were advanced on June 15, 2023, at the Ag Supply of Wenatchee site located at 1115 North Wenatchee Avenue in Wenatchee, Washington. Soil samples were collected from the borings. 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 assessment, contamination related to the historic release of diesel from the ASTs 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 have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgement and experience. No warranty or other conditions, express or implied, should be understood.

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

7.0 REFERENCES

GeoEngineers, Inc. 2023. "Work Plan, Ag Supply of Wenatchee, 1115 North Wenatchee Avenue, Wenatchee, Washington." March 1, 2023. File No. 0504-196-00.

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

West Central Environmental Consultants. 2000. "Response to DOE Letter." June 28, 2000.

Table 1
Chemical Analytical Results - Soil¹
 Ag Supply of Wenatchee
 Wenatchee, Washington

Method	Analyte	MTCA CUL ⁴	Units	Location ID		GEI049-DP1		GEI049-DP2		GEI049-DP3		GEI049-DP4	
				Sample Depth (feet bgs)		5.5 to 6		1.5 to 2		1.5 to 2		1.5 to 2	
				Sample Date		6/15/2023		6/15/2023		6/15/2023		6/15/2023	
NWTPH-Dx ²	DRPH	2,000	mg/kg	16	J	4.5	U	4.6	U	21	J		
	ORPH		mg/kg	5.0	U	5.3	U	5.5	U	88			
BTEXN ³	Benzene	0.03	mg/kg	0.012	U	0.012	U	0.010	U	0.012	U		
	Toluene	7	mg/kg	0.016	U	0.015	U	0.014	U	0.016	U		
	Ethylbenzene	6	mg/kg	0.019	U	0.019	U	0.017	U	0.019	U		
	m, p-Xylene	NE	mg/kg	0.034	U	0.033	U	0.030	U	0.034	U		
	o-Xylene	NE	mg/kg	0.027	U	0.027	U	0.024	U	0.027	U		
	Xylenes (total)	9	mg/kg	0.061	U	0.060	U	0.054	U	0.061	U		
	Naphthalene	5	mg/kg	0.033	U	0.032	U	0.029	U	0.033	U		

Notes

¹Samples analyzed by Eurofins Environment Testing located in Spokane Valley, Washington.

²Diesel- and oil-range petroleum hydrocarbons analyzed using Northwest Method NWTPH-Dx.

³Benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN) analyzed using EPA Method 8260D.

⁴MTCA Method A unrestricted land use cleanup levels (CUL).

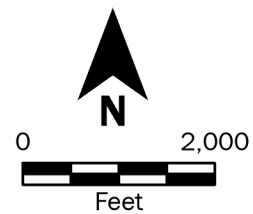
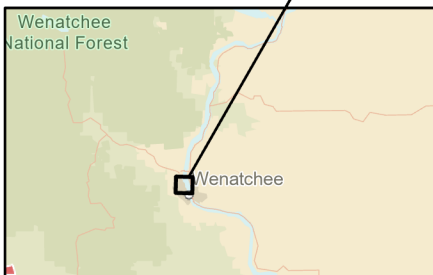
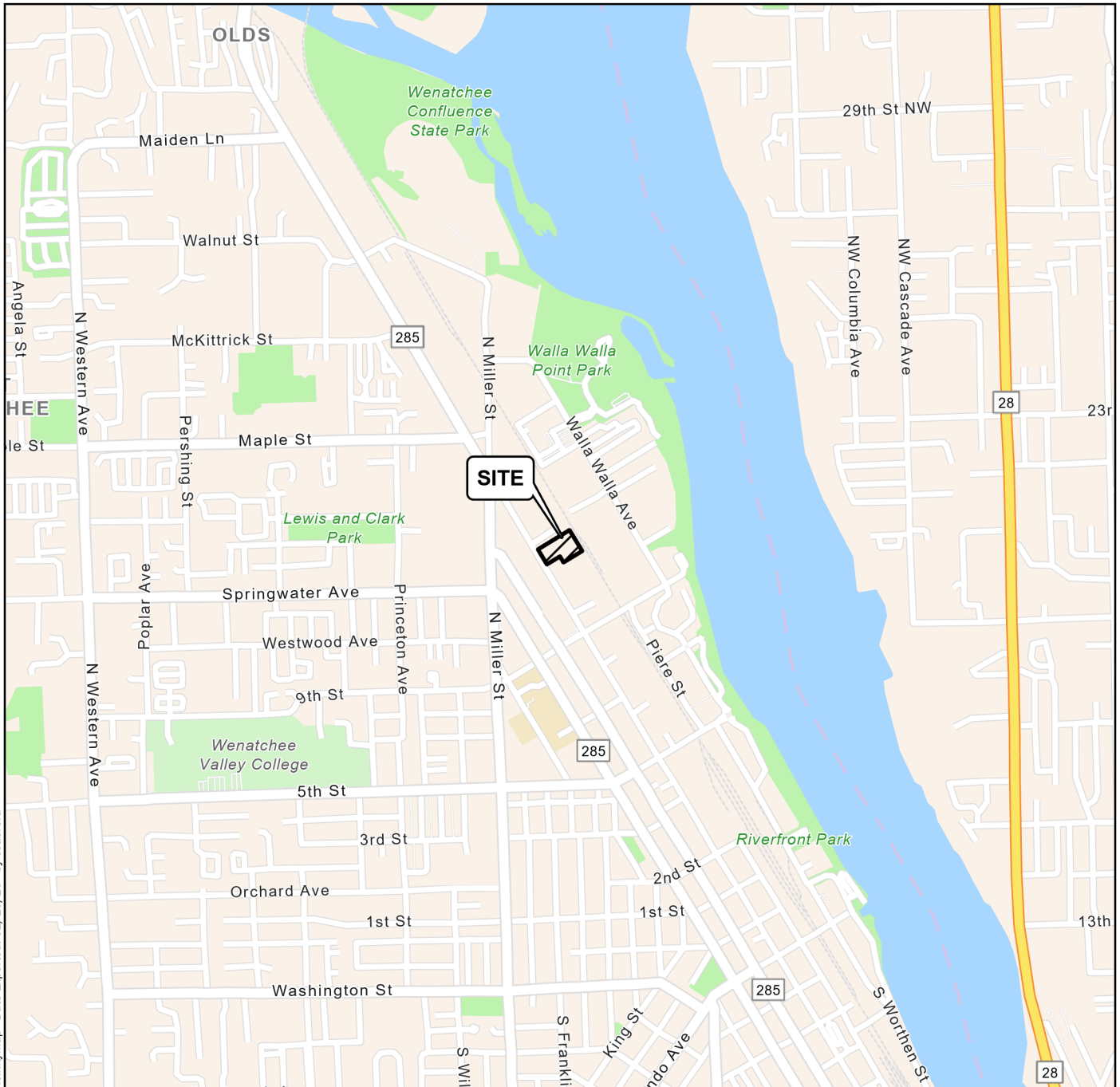
mg/kg = milligrams per kilogram.

bgs = below ground surface.

NE = not established.

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

Bold indicates analyte was detected.



Vicinity Map

1115 North Wenatchee Avenue
Wenatchee, Washington



Figure 1

Source(s):
• ESRI

Coordinate System: NAD 1983 UTM Zone 10N

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.








P:\0_0504196\GIS\0504196_Project\0504196_F02_SitePlan Date Exported: 09/01/23 by ccaברה

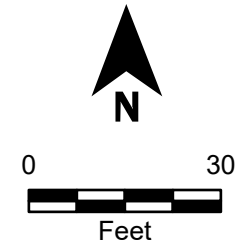
Source(s):
• Bing Imagery

Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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Legend

-  Soil Boring Number and Approximate Location
-  IDW Storage Unit
-  AST Containment Area
-  Approximate Spill Trace
-  Approximate Release Location



Site Plan	
1115 North Wenatchee Avenue Wenatchee, Washington	
	Figure 2

APPENDIX A

Boring Logs

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SP	POORLY-GRADED SANDS, GRAVELLY SAND
FINE GRAINED SOILS	SILTS AND CLAYS		LIQUID LIMIT LESS THAN 50		SM
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
				ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		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
				MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
HIGHLY ORGANIC 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

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.

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.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	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

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

Key to Exploration Logs



Figure A-1

Start Drilled 6/15/2023	End 6/15/2023	Total Depth (ft) 8	Logged By Checked By JDO SHL	Driller GeoEngineers, Inc.	Drilling Method Direct-push
Surface Elevation (ft) Vertical Datum 662			Hammer Data N/A		Drilling Equipment Geoprobe
Latitude 47.4384 Longitude -120.3205			System Datum Decimal Degrees WGS84		Groundwater not observed at time of exploration
Notes:					

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing				
0	48					GP-GM			Brown fine to coarse gravel with silt and sand (dense, moist)
660					GEI049-DP3 (1.5-2) CA	SM	NS	0.0	Brown silty fine sand with occasional gravel (medium dense, moist)
48							NS	0.0	
5					GEI049-DP3 (5.5-6)		NS	0.0	
655							NS	0.0	

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

Log of Boring DP-3



Project: Ag Supply Company of Wenatchee
Project Location: Wenatchee, Washington
Project Number: 0504-196-00

Figure A-4
Sheet 1 of 1

Date: 8/31/23 Path: P:\0504-196\GINT\050419600.GPJ DBLibrary/Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 6/15/2023	End 6/15/2023	Total Depth (ft)	8	Logged By Checked By	JDO SHL	Driller	GeoEngineers, Inc.	Drilling Method	Direct-push	
Surface Elevation (ft) Vertical Datum				664	Hammer Data			N/A	Drilling Equipment		Geoprobe
Latitude Longitude			47.4383 -120.3203		System Datum		Decimal Degrees WGS84		Groundwater not observed at time of exploration		
Notes:											

[illegible]

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

Log of Boring DP-4



Project: Ag Supply Company of Wenatchee
Project Location: Wenatchee, Washington
Project Number: 0504-196-00

Figure A-5
Sheet 1 of 1

APPENDIX B

IDW Disposal Documentation

WM
Graham Road Facility
1820 S. Graham Road
Mediast Management 9022

Original
Ticket# 702964
Ph: (509) 244-0151

Customer Name ABLECLEAN ABLE CLEAN-UP Carrier ABLECLEANUP ABLE CLEANUP TECHNOLOGIE
Ticket Date 08/25/2023 Vehicle# darren
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0000726
Destination Grid
Manifest 109512wa
Profile 109512WA (LF01 - Drill Cuttings Geo Tech (WM012A))
Generator WA-ABLE CLEANUP TECHNOLOGIES ABLE CLEANUP TECHNOLOGIES
PO# 23225

	Time	Scale	Operator	Inbound	Gross	
In	08/25/2023 14:05:25	Scale1	ZRICHARD		Tare	11300 lb
Out	08/25/2023 14:14:04	Scale1	ZRICHARD		Net	60 lb
					Tons	0.03

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	0.03	Tons	39.58	1.42	\$39.58	SPOKANE
2 EVF-P10-Environmental F	100		%	10.00		\$3.96	SPOKANE
3 SRHD1-Spokane Regional	100	0.03	Tons	0.32		\$0.01	SPOKANE

Total Tax/Fees \$1.42
Total Ticket \$44.97

Driver's Signature



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

APPENDIX C

Chemical Analytical Laboratory Reports and Data Validation

Project: Ag Supply Company of Wenatchee—Environmental Assessment
June 2023 Soil Samples

File: 0504-196-00

Date: July 12, 2023

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 samples collected as part of the June 2023 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Ag Supply Company of Wenatchee facility located at 1115 North Wenatchee Avenue in Wenatchee, 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
- Laboratory/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
590-20814-1	GEI049-DP1 (5.5-6), GEI049-DP- DUP, GEI049-DP2 (1.5-2), GEI049-DP3 (1.5-2), GEI049-DP4 (1.5-2), GEI049-WC, Trip Blank (soil)

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:

- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Volatile Organic Compounds (VOCs) by Method EPA8260D; and
- Total 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 outside the appropriate temperatures of between two and six degrees Celsius at 9.6 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

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 590-20814-1: (VOCs) There was a positive result for toluene in the method blank extracted on 6/21/2023. There were no positive results for this target analyte in the associated field samples; therefore, no qualifications were required.

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 blank.

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.

Laboratory Duplicates

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

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 soil and water samples is 35 percent.

SDG 590-20814-1: One field duplicate sample pair, GEI049-DP1 (5.5-6) and GEI049-DP- DUP, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair.

Miscellaneous

SDG 590-20814-1: (NWTPH-Dx) The positive results for diesel-range hydrocarbons in Samples GEI049-DP1 (5.5-6) and GEI049-DP- DUP appear to be due to heavily weathered diesel in the sample concentrations. For this reason, the positive results for this target analyte were qualified as estimated (J) in these samples.

The positive result for diesel-range hydrocarbons in Sample GEI049-DP4 (1.5-2) appears to be due to lube oil-range hydrocarbons overlap in the sample concentration. For this reason, the positive result for this target analyte was qualified as estimated (J) in this sample.

OVERALL ASSESSMENT

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

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
GEI049-DP1 (5.5-6)	Diesel-range hydrocarbons	J	See Miscellaneous
GEI049-DP- DUP	Diesel-range hydrocarbons	J	See Miscellaneous
GEI049-DP4 (1.5-2)	Diesel-range hydrocarbons	J	See Miscellaneous

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, Ag Supply Company of Wenatchee Site Assessment," prepared for Washington State Department of Ecology. March 1, 2023.

ANALYTICAL REPORT

PREPARED FOR

Attn: Justin Orr
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Generated 6/29/2023 11:32:30 AM

JOB DESCRIPTION

Ag Supply of Wenatchee

JOB NUMBER

590-20814-1

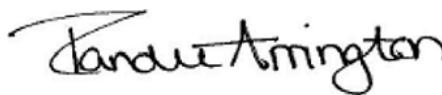
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Job Notes

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Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Definitions	6
Client Sample Results	7
QC Sample Results	11
Chronicle	14
Certification Summary	17
Method Summary	18
Chain of Custody	19
Receipt Checklists	20

Case Narrative

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Job ID: 590-20814-1

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/15/2023 3:14 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 was 9.6° C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: GEI049-DP1 (1.5-2) (590-20814-1), GEI049-DP1 (5.5-6) (590-20814-2), GEI049-DP2 (1.5-2) (590-20814-3), GEI049-DP2 (5.5-6) (590-20814-4), GEI049-DP3 (1.5-2) (590-20814-5), GEI049-DP3 (5.5-6) (590-20814-6), GEI049-DP4 (1.5-2) (590-20814-7), GEI049-DP4 (5.5-6) (590-20814-8), GEI049-DP-DUP (590-20814-9), GEI049-WC (590-20814-10) and TripBlank (soil) (590-20814-11). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS VOA

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

GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following samples: GEI049-DP1 (5.5-6) (590-20814-2), GEI049-DP-DUP (590-20814-9) and (590-20814-C-2-B DU).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to oil overlap in the followign sample: GEI049-DP4 (1.5-2) (590-20814-7).

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

Metals

Method 6010D: The following sample was diluted due to the abundance of non-target analytes: GEI049-WC (590-20814-10). Elevated reporting limits (RLs) are provided.

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20814-2	GEI049-DP1 (5.5-6)	Solid	06/15/23 08:53	06/15/23 15:14
590-20814-3	GEI049-DP2 (1.5-2)	Solid	06/15/23 09:30	06/15/23 15:14
590-20814-5	GEI049-DP3 (1.5-2)	Solid	06/15/23 10:08	06/15/23 15:14
590-20814-7	GEI049-DP4 (1.5-2)	Solid	06/15/23 10:25	06/15/23 15:14
590-20814-9	GEI049-DP- DUP	Solid	06/15/23 08:00	06/15/23 15:14
590-20814-10	GEI049-WC	Solid	06/15/23 10:45	06/15/23 15:14
590-20814-11	TripBlank (soil)	Solid	06/15/23 08:00	06/15/23 15:14

Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

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.

Metals

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.

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 Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: GEI049-DP1 (5.5-6)

Lab Sample ID: 590-20814-2

Date Collected: 06/15/23 08:53

Matrix: Solid

Date Received: 06/15/23 15:14

Percent Solids: 94.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	0.012	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1
Ethylbenzene	ND		0.12	0.019	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1
m,p-Xylene	ND		0.47	0.034	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1
o-Xylene	ND		0.24	0.027	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1
Toluene	ND		0.12	0.016	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1
Naphthalene	ND		0.24	0.033	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1
Xylenes, Total	ND		0.71	0.061	mg/Kg	☆	06/21/23 10:18	06/21/23 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		79 - 124	06/21/23 10:18	06/21/23 16:16	1
4-Bromofluorobenzene (Surr)	101		66 - 129	06/21/23 10:18	06/21/23 16:16	1
Dibromofluoromethane (Surr)	99		80 - 120	06/21/23 10:18	06/21/23 16:16	1
Toluene-d8 (Surr)	104		80 - 120	06/21/23 10:18	06/21/23 16:16	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)	16		10	4.2	mg/Kg	☆	06/23/23 12:17	06/23/23 23:47	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg	☆	06/23/23 12:17	06/23/23 23:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	06/23/23 12:17	06/23/23 23:47	1
n-Triacontane-d62	87		50 - 150	06/23/23 12:17	06/23/23 23:47	1

Client Sample ID: GEI049-DP2 (1.5-2)

Lab Sample ID: 590-20814-3

Date Collected: 06/15/23 09:30

Matrix: Solid

Date Received: 06/15/23 15:14

Percent Solids: 91.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	0.012	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1
Ethylbenzene	ND		0.12	0.019	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1
m,p-Xylene	ND		0.46	0.033	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1
o-Xylene	ND		0.23	0.027	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1
Toluene	ND		0.12	0.015	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1
Naphthalene	ND		0.23	0.032	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1
Xylenes, Total	ND		0.69	0.060	mg/Kg	☆	06/21/23 10:18	06/21/23 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		79 - 124	06/21/23 10:18	06/21/23 16:38	1
4-Bromofluorobenzene (Surr)	100		66 - 129	06/21/23 10:18	06/21/23 16:38	1
Dibromofluoromethane (Surr)	100		80 - 120	06/21/23 10:18	06/21/23 16:38	1
Toluene-d8 (Surr)	104		80 - 120	06/21/23 10:18	06/21/23 16:38	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)	ND		11	4.5	mg/Kg	☆	06/23/23 12:17	06/24/23 00:53	1
Residual Range Organics (RRO) (C25-C36)	ND		27	5.3	mg/Kg	☆	06/23/23 12:17	06/24/23 00:53	1

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Client Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: GEI049-DP2 (1.5-2)

Date Collected: 06/15/23 09:30

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-3

Matrix: Solid

Percent Solids: 91.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150	06/23/23 12:17	06/24/23 00:53	1
<i>n</i> -Triacontane-d62	83		50 - 150	06/23/23 12:17	06/24/23 00:53	1

Client Sample ID: GEI049-DP3 (1.5-2)

Date Collected: 06/15/23 10:08

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-5

Matrix: Solid

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.021	0.010	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1
Ethylbenzene	ND		0.10	0.017	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1
m,p-Xylene	ND		0.42	0.030	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1
<i>o</i> -Xylene	ND		0.21	0.024	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1
Toluene	ND		0.10	0.014	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1
Naphthalene	ND		0.21	0.029	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1
Xylenes, Total	ND		0.63	0.054	mg/Kg	☆	06/21/23 10:18	06/21/23 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		79 - 124	06/21/23 10:18	06/21/23 16:59	1
4-Bromofluorobenzene (Surr)	102		66 - 129	06/21/23 10:18	06/21/23 16:59	1
Dibromofluoromethane (Surr)	100		80 - 120	06/21/23 10:18	06/21/23 16:59	1
Toluene-d8 (Surr)	103		80 - 120	06/21/23 10:18	06/21/23 16:59	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)	ND		11	4.6	mg/Kg	☆	06/23/23 12:17	06/24/23 01:16	1
Residual Range Organics (RRO) (C25-C36)	ND		27	5.5	mg/Kg	☆	06/23/23 12:17	06/24/23 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150	06/23/23 12:17	06/24/23 01:16	1
<i>n</i> -Triacontane-d62	84		50 - 150	06/23/23 12:17	06/24/23 01:16	1

Client Sample ID: GEI049-DP4 (1.5-2)

Date Collected: 06/15/23 10:25

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-7

Matrix: Solid

Percent Solids: 87.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	0.012	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1
Ethylbenzene	ND		0.12	0.019	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1
m,p-Xylene	ND		0.47	0.034	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1
<i>o</i> -Xylene	ND		0.24	0.027	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1
Toluene	ND		0.12	0.016	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1
Naphthalene	ND		0.24	0.033	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1
Xylenes, Total	ND		0.71	0.061	mg/Kg	☆	06/21/23 10:18	06/21/23 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		79 - 124	06/21/23 10:18	06/21/23 17:20	1
4-Bromofluorobenzene (Surr)	104		66 - 129	06/21/23 10:18	06/21/23 17:20	1
Dibromofluoromethane (Surr)	99		80 - 120	06/21/23 10:18	06/21/23 17:20	1

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Client Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: GEI049-DP4 (1.5-2)

Date Collected: 06/15/23 10:25

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-7

Matrix: Solid

Percent Solids: 87.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	06/21/23 10:18	06/21/23 17:20	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)	21		11	4.5	mg/Kg	☆	06/23/23 12:17	06/24/23 01:38	1
Residual Range Organics (RRO) (C25-C36)	88		27	5.4	mg/Kg	☆	06/23/23 12:17	06/24/23 01:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	99		50 - 150	06/23/23 12:17	06/24/23 01:38	1
n-Triacontane-d62	97		50 - 150	06/23/23 12:17	06/24/23 01:38	1

Client Sample ID: GEI049-DP- DUP

Date Collected: 06/15/23 08:00

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-9

Matrix: Solid

Percent Solids: 94.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.021	0.011	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1
Ethylbenzene	ND		0.11	0.017	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1
m,p-Xylene	ND		0.43	0.031	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1
o-Xylene	ND		0.21	0.024	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1
Toluene	ND		0.11	0.014	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1
Naphthalene	ND		0.21	0.030	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1
Xylenes, Total	ND		0.64	0.055	mg/Kg	☆	06/21/23 10:18	06/21/23 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		79 - 124	06/21/23 10:18	06/21/23 17:42	1
4-Bromofluorobenzene (Surr)	106		66 - 129	06/21/23 10:18	06/21/23 17:42	1
Dibromofluoromethane (Surr)	99		80 - 120	06/21/23 10:18	06/21/23 17:42	1
Toluene-d8 (Surr)	104		80 - 120	06/21/23 10:18	06/21/23 17:42	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)	18		10	4.2	mg/Kg	☆	06/23/23 12:17	06/24/23 02:00	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg	☆	06/23/23 12:17	06/24/23 02:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	102		50 - 150	06/23/23 12:17	06/24/23 02:00	1
n-Triacontane-d62	95		50 - 150	06/23/23 12:17	06/24/23 02:00	1

Client Sample ID: GEI049-WC

Date Collected: 06/15/23 10:45

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-10

Matrix: Solid

Percent Solids: 90.4

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	65		11	4.2	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10
Barium	140		11	2.8	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10

Eurofins Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: GEI049-WC

Lab Sample ID: 590-20814-10

Date Collected: 06/15/23 10:45

Matrix: Solid

Date Received: 06/15/23 15:14

Percent Solids: 90.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		8.5	0.50	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10
Chromium	14		11	1.5	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10
Lead	380		26	13	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10
Selenium	ND		43	26	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10
Silver	ND		11	2.4	mg/Kg	☆	06/27/23 17:20	06/28/23 16:21	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	28	J	38	2.7	ug/Kg	☆	06/27/23 11:42	06/28/23 15:20	1

Client Sample ID: TripBlank (soil)

Lab Sample ID: 590-20814-11

Date Collected: 06/15/23 08:00

Matrix: Solid

Date Received: 06/15/23 15:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.021	0.011	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
Ethylbenzene	ND		0.11	0.017	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
m,p-Xylene	ND		0.42	0.030	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
o-Xylene	ND		0.21	0.024	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
Toluene	ND		0.11	0.014	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
Naphthalene	ND		0.21	0.029	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
Xylenes, Total	ND		0.63	0.054	mg/Kg		06/21/23 10:18	06/21/23 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		79 - 124				06/21/23 10:18	06/21/23 18:04	1
4-Bromofluorobenzene (Surr)	102		66 - 129				06/21/23 10:18	06/21/23 18:04	1
Dibromofluoromethane (Surr)	98		80 - 120				06/21/23 10:18	06/21/23 18:04	1
Toluene-d8 (Surr)	106		80 - 120				06/21/23 10:18	06/21/23 18:04	1

Eurofins Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

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

Lab Sample ID: MB 590-42094/1-A

Matrix: Solid

Analysis Batch: 42096

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.010	mg/Kg		06/21/23 10:17	06/21/23 11:13	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		06/21/23 10:17	06/21/23 11:13	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		06/21/23 10:17	06/21/23 11:13	1
o-Xylene	ND		0.20	0.023	mg/Kg		06/21/23 10:17	06/21/23 11:13	1
Toluene	0.0148	J	0.10	0.013	mg/Kg		06/21/23 10:17	06/21/23 11:13	1
Naphthalene	ND		0.20	0.028	mg/Kg		06/21/23 10:17	06/21/23 11:13	1
Xylenes, Total	ND		0.60	0.052	mg/Kg		06/21/23 10:17	06/21/23 11:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		79 - 124	06/21/23 10:17	06/21/23 11:13	1
4-Bromofluorobenzene (Surr)	98		66 - 129	06/21/23 10:17	06/21/23 11:13	1
Dibromofluoromethane (Surr)	103		80 - 120	06/21/23 10:17	06/21/23 11:13	1
Toluene-d8 (Surr)	105		80 - 120	06/21/23 10:17	06/21/23 11:13	1

Lab Sample ID: LCS 590-42094/2-A

Matrix: Solid

Analysis Batch: 42096

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.500	0.522		mg/Kg		104	80 - 128
Ethylbenzene	0.500	0.542		mg/Kg		108	80 - 127
m,p-Xylene	0.500	0.576		mg/Kg		115	80 - 131
o-Xylene	0.500	0.573		mg/Kg		115	78 - 128
Toluene	0.500	0.568		mg/Kg		114	79 - 130
Naphthalene	0.500	0.473		mg/Kg		95	57 - 131

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		79 - 124
4-Bromofluorobenzene (Surr)	94		66 - 129
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	105		80 - 120

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

Lab Sample ID: MB 590-42150/1-A

Matrix: Solid

Analysis Batch: 42145

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42150

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		06/23/23 12:17	06/23/23 20:50	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg		06/23/23 12:17	06/23/23 20:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	101		50 - 150	06/23/23 12:17	06/23/23 20:50	1
n-Triacontane-d62	90		50 - 150	06/23/23 12:17	06/23/23 20:50	1

Eurofins Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

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

Lab Sample ID: LCS 590-42150/2-A

Matrix: Solid

Analysis Batch: 42145

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42150

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier			Limits			
Diesel Range Organics (DRO) (C10-C25)			66.7	70.8		mg/Kg		106		50 - 150	
Residual Range Organics (RRO) (C25-C36)			66.7	70.0		mg/Kg		105		50 - 150	
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
o-Terphenyl	106		50 - 150								
n-Triacontane-d62	100		50 - 150								

Lab Sample ID: 590-20814-2 DU

Matrix: Solid

Analysis Batch: 42145

Client Sample ID: GEI049-DP1 (5.5-6)

Prep Type: Total/NA

Prep Batch: 42150

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)	16		12.2		mg/Kg	☼	29	40
Residual Range Organics (RRO) (C25-C36)	ND		ND		mg/Kg	☼	NC	40
Surrogate	DU %Recovery	DU Qualifier	Limits					
o-Terphenyl	92		50 - 150					
n-Triacontane-d62	85		50 - 150					

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-42207/2-A

Matrix: Solid

Analysis Batch: 42227

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		06/27/23 17:20	06/28/23 14:19	1
Barium	ND		1.3	0.34	mg/Kg		06/27/23 17:20	06/28/23 14:19	1
Cadmium	ND		1.0	0.059	mg/Kg		06/27/23 17:20	06/28/23 14:19	1
Chromium	ND		1.3	0.18	mg/Kg		06/27/23 17:20	06/28/23 14:19	1
Lead	ND		3.0	1.5	mg/Kg		06/27/23 17:20	06/28/23 14:19	1
Selenium	ND		5.0	3.0	mg/Kg		06/27/23 17:20	06/28/23 14:19	1
Silver	ND		1.3	0.29	mg/Kg		06/27/23 17:20	06/28/23 14:19	1

Lab Sample ID: LCS 590-42207/1-A

Matrix: Solid

Analysis Batch: 42227

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	93.2		mg/Kg		93	80 - 120
Barium	100	88.4		mg/Kg		88	80 - 120
Cadmium	50.0	48.3		mg/Kg		97	80 - 120
Chromium	50.0	48.0		mg/Kg		96	80 - 120
Lead	50.0	48.8		mg/Kg		98	80 - 120
Selenium	100	90.4		mg/Kg		90	80 - 120

Eurofins Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 590-42207/1-A

Matrix: Solid

Analysis Batch: 42227

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	5.00	4.99		mg/Kg		100	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-42193/9-A

Matrix: Solid

Analysis Batch: 42226

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42193

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		50	3.6	ug/Kg		06/27/23 11:40	06/28/23 14:35	1

Lab Sample ID: LCS 590-42193/8-A

Matrix: Solid

Analysis Batch: 42226

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42193

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	200	207		ug/Kg		104	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: GEI049-DP1 (5.5-6)

Date Collected: 06/15/23 08:53

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-2

Matrix: Solid

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			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: GEI049-DP1 (5.5-6)

Date Collected: 06/15/23 08:53

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-2

Matrix: Solid

Percent Solids: 94.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9.447 g	10 mL	42094	06/21/23 10:18	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42096	06/21/23 16:16	JSP	EET SPK
Total/NA	Prep	3550C			15.80 g	5 mL	42150	06/23/23 12:17	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 23:47	NMI	EET SPK

Client Sample ID: GEI049-DP2 (1.5-2)

Date Collected: 06/15/23 09:30

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-3

Matrix: Solid

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			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: GEI049-DP2 (1.5-2)

Date Collected: 06/15/23 09:30

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-3

Matrix: Solid

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			10.348 g	10 mL	42094	06/21/23 10:18	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42096	06/21/23 16:38	JSP	EET SPK
Total/NA	Prep	3550C			15.46 g	5 mL	42150	06/23/23 12:17	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/24/23 00:53	NMI	EET SPK

Client Sample ID: GEI049-DP3 (1.5-2)

Date Collected: 06/15/23 10:08

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-5

Matrix: Solid

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			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: GEI049-DP3 (1.5-2)

Date Collected: 06/15/23 10:08

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-5

Matrix: Solid

Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11.833 g	10 mL	42094	06/21/23 10:18	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42096	06/21/23 16:59	JSP	EET SPK
Total/NA	Prep	3550C			15.19 g	5 mL	42150	06/23/23 12:17	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/24/23 01:16	NMI	EET SPK

Eurofins Spokane

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: GEI049-DP4 (1.5-2)

Date Collected: 06/15/23 10:25

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-7

Matrix: Solid

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			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: GEI049-DP4 (1.5-2)

Date Collected: 06/15/23 10:25

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-7

Matrix: Solid

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10.947 g	10 mL	42094	06/21/23 10:18	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42096	06/21/23 17:20	JSP	EET SPK
Total/NA	Prep	3550C			15.83 g	5 mL	42150	06/23/23 12:17	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/24/23 01:38	NMI	EET SPK

Client Sample ID: GEI049-DP- DUP

Date Collected: 06/15/23 08:00

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-9

Matrix: Solid

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			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: GEI049-DP- DUP

Date Collected: 06/15/23 08:00

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-9

Matrix: Solid

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10.511 g	10 mL	42094	06/21/23 10:18	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42096	06/21/23 17:42	JSP	EET SPK
Total/NA	Prep	3550C			15.83 g	5 mL	42150	06/23/23 12:17	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/24/23 02:00	NMI	EET SPK

Client Sample ID: GEI049-WC

Date Collected: 06/15/23 10:45

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-10

Matrix: Solid

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			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: GEI049-WC

Date Collected: 06/15/23 10:45

Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-10

Matrix: Solid

Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	42207	06/27/23 17:20	AMB	EET SPK
Total/NA	Analysis	6010D		10			42227	06/28/23 16:21	AMB	EET SPK
Total/NA	Prep	7471B			0.72 g	50 mL	42193	06/27/23 11:42	AMB	EET SPK
Total/NA	Analysis	7471B		1			42226	06/28/23 15:20	AMB	EET SPK

Eurofins Spokane

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Client Sample ID: TripBlank (soil)
Date Collected: 06/15/23 08:00
Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9.519 g	10 mL	42094	06/21/23 10:18	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42096	06/21/23 18:04	JSP	EET SPK

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

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

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
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	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
3050B	Preparation, Metals	SW846	EET SPK
3550C	Ultrasonic Extraction	SW846	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK
7471B	Preparation, Mercury	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

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

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Page 19 of 20

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-20814-1

Login Number: 20814

List Source: Eurofins Spokane

List Number: 1

Creator: Morris, Mackenzie 1

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	False	Received same day of collection; chilling process has begun.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

PREPARED FOR

Attn: Justin Orr
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Generated 7/12/2023 3:56:25 PM

JOB DESCRIPTION

Ag Supply of Wenatchee

JOB NUMBER

590-20814-3

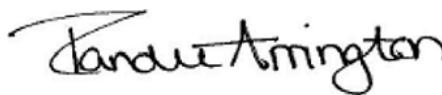
Eurofins Spokane

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



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Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Definitions	6
Client Sample Results	7
QC Sample Results	8
Chronicle	9
Certification Summary	10
Method Summary	11
Chain of Custody	12
Receipt Checklists	13

Case Narrative

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Job ID: 590-20814-3

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/15/2023 3:14 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 was 9.6° C.

Metals

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

General Chemistry

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

Sample Summary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20814-10	GEI049-WC	Solid	06/15/23 10:45	06/15/23 15:14

1

2

3

4

5

6

7

8

9

10

11

12

Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

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 Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Client Sample ID: GEI049-WC

Lab Sample ID: 590-20814-10

Date Collected: 06/15/23 10:45

Matrix: Solid

Date Received: 06/15/23 15:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.21		0.060	0.0051	mg/L		07/11/23 14:01	07/11/23 17:58	1

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 590-42352/1-A
Matrix: Solid
Analysis Batch: 42363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42352

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	1.00	0.920		mg/L		92	80 - 120

Lab Sample ID: LB 590-42336/1-B
Matrix: Solid
Analysis Batch: 42363

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 42352

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		07/11/23 14:01	07/11/23 17:46	1

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Client Sample ID: GEI049-WC
Date Collected: 06/15/23 10:45
Date Received: 06/15/23 15:14

Lab Sample ID: 590-20814-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.84 g	2000.78 mL	42336	07/10/23 14:09	AMB	EET SPK
TCLP	Prep	3010A			50 mL	50 mL	42352	07/11/23 14:01	AMB	EET SPK
TCLP	Analysis	6010D		1			42363	07/11/23 17:58	AMB	EET SPK

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

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

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

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12

Method Summary

Client: GeoEngineers Inc
Project/Site: Ag Supply of Wenatchee

Job ID: 590-20814-3

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SPK
1311	TCLP Extraction	SW846	EET SPK
3010A	Preparation, Total Metals	SW846	EET SPK

Protocol References:

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

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Page 12 of 13

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-20814-3

Login Number: 20814

List Source: Eurofins Spokane

List Number: 1

Creator: Morris, Mackenzie 1

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	False	Received same day of collection; chilling process has begun.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

Report Limitations and Guidelines for Use

APPENDIX D

REPORT LIMITATIONS AND GUIDELINES FOR USE¹

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 Ag Supply of Wenatchee site located at 1115 North Wenatchee Avenue in Wenatchee, 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.

