GeoEngineers

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January 21, 2025

Washington State Department of Ecology
PO Box 47600
Olympia, Washington 98504-7600

Attention: Jing Song

Subject: Post-Construction Monitoring Progress Report – November 2024 Sampling
701/709 South Jackson Street
Seattle, Washington
Facility Site ID: 99187287
Cleanup Site ID: 11348
GeoEngineers File No. 24504-001-04

Introduction

On behalf of 701 S Jackson QOZB, LLC (South Jackson QOZB [formerly South Jackson Partners, LLC]), this progress report is being provided to present the results of the November 2024 post-construction groundwater and soil vapor monitoring completed for the Seventh Avenue Service Site (Site) located at 701/709 South Jackson Street within the Chinatown-International District neighborhood of Seattle, Washington. In accordance with the *Draft Compliance Monitoring Plan* (*CMP*; GeoEngineers 2024), groundwater and soil vapor monitoring are being completed by South Jackson QOZB to evaluate post-construction Site conditions relative to the residual soil contamination remaining in-place beneath portions of the 7th Avenue South and South Jackson Street rights-of-way (ROW) beyond the 701/709 South Jackson Street property (Property) boundaries.

The Site is shown relative to surrounding physical features on the Vicinity Map, Figure 1. Current Site conditions following completion of the Ecology-approved 2023 Cleanup Action to address petroleum-related contamination resulting from historical land use (i.e., a former gasoline service station with associated automotive maintenance facilities) are shown on the Site Plan, Figure 2. The post-construction monitoring activities are summarized below.

Groundwater Monitoring Program

Performance monitoring is being completed on a quarterly basis to document post-construction groundwater conditions and compliance with the cleanup standards established by the *Cleanup Action Plan*

(*CAP*; Ecology 2023). It is anticipated that performance monitoring will be completed until four consecutive groundwater sampling events indicate that contaminant concentrations are below the established cleanup levels. Once the performance groundwater monitoring results indicate that the Model Toxics Control Act (MTCA) cleanup levels have been met, long-term confirmational groundwater monitoring will then be completed on an annual basis until the first 5-year periodic review by Ecology or as otherwise determined by Ecology.

GROUNDWATER MONITORING SCHEDULE

Post-construction groundwater monitoring will include the following events:

- Round 1 Groundwater Monitoring Event – Completed on August 20, 2024
- Round 2 Groundwater Monitoring Event – Completed on November 26, 2024
- Round 3 Groundwater Monitoring Event – Anticipated for February 2025
- Round 4 Groundwater Monitoring Event – Anticipated for May 2025

The need for additional rounds of groundwater monitoring will be determined by Ecology based on the results of the initial four quarterly monitoring events.

MONITORING WELL NETWORK

Previously installed groundwater monitoring wells GEI-11 and GEI-12 are being used to evaluate groundwater conditions within and/or down gradient of the areas of residual soil contamination beyond the Property boundary. Monitoring well GEI-13 (new monitoring well recently installed in the South Jackson Street ROW) is being used to evaluate and document groundwater north of the Property boundary and up-gradient of the cleanup action area. The locations of monitoring wells GEI-11 through GEI-13 are shown in Figure 2. Well construction details are summarized in Table 1.

SAMPLING PROCEDURES

Groundwater samples were obtained from monitoring wells using low-flow/low-turbidity sampling techniques to minimize the suspension of sediment in groundwater samples. Prior to sampling, groundwater levels were measured in each monitoring well using an electric water level indicator (e-tape) to the nearest 0.01 foot relative to the surveyed casing rim elevations. Measured groundwater levels are summarized in Table 2.

Groundwater was pumped at 0.5 liters per minute or less using a GeoSub 2 - submersible pump through dedicated polyethylene tubing placed within the screened interval of each well. A water quality parameter measuring instrument with flow-through cell was used to monitor water quality parameters during purging. Groundwater samples were obtained after ambient groundwater conditions were attained at each well location. Groundwater field parameters measured at the time of sampling are presented in Table 2.

Once filled, sample containers were placed in iced coolers and transported to the analytical laboratory under chain of custody procedures.

CHEMICAL ANALYSIS

Groundwater samples were submitted to Fremont Analytical, located in Seattle, Washington for chemical analysis for the following Site contaminants:

- Gasoline-range total petroleum hydrocarbons by Ecology Method NWTPH-Gx.
- Diesel- and heavy oil-range total petroleum hydrocarbons by Ecology Method NWTPH-Dx.
- Benzene, ethylbenzene, toluene and xylenes (BETX) by United States Environmental Protection Agency (EPA) Method 8260.
- Naphthalenes by EPA Method 8270.

In addition to the Site contaminants listed above, Ecology in their email correspondence also required the following chemical analysis for consistency with Table 830-1 (Washington Administrative Code [WAC] 173-340-900):

- Volatile organic compounds (VOCs) including, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC) and methyl t-butyl ether (MTBE) by EPA Method 8260.
- Total and dissolved lead by EPA Method 6020.

Soil Vapor Monitoring Program

Due to the presence of residual soil contamination remaining beyond the Property boundary within the 7th Avenue and South Jackson Street ROWs, semi-annual soil vapor monitoring is being conducted to document post-construction conditions and evaluate the potential vapor intrusion risk to future occupants of the building planned for construction on the Property. South Jackson QOZB will consult with Ecology following completion of the second soil vapor monitoring event to determine whether the residual contaminant concentrations (if detected) pose a risk for vapor intrusion into the planned new building and whether a vapor barrier is required to protect occupants of the new building from exposure.

SOIL VAPOR MONITORING SCHEDULE

Post-construction soil vapor monitoring will include the following events:

- Round 1 Soil Vapor Monitoring Event – Completed on November 26, 2024
- Round 2 Soil Vapor Monitoring Event – Anticipated for May 2025

The soil vapor monitoring is being completed by South Jackson QOZB concurrent with the second and fourth quarterly performance groundwater monitoring events to document Site conditions and to account for potential seasonal variations. The frequency and duration of additional soil vapor monitoring or air sampling (if required) will be based on discussions with Ecology.

SOIL VAPOR SAMPLING POINTS

Soil vapor samples are being collected from permanent sub-slab vapor pins (VP-1 and VP-2) installed within the hardscape of the 7th Avenue ROW, along the western Property boundary (Figure 2). The locations of vapor pins VP-1 and VP-2 are shown in Figure 2.

SAMPLING PROCEDURES

Initial sub-slab soil vapor samples were collected in November 2024 from each vapor pin using a selective ion monitoring (SIM)-certified 30-minute flow controller and contained in a 1-liter SIM-certified Summa canister. Each Summa canister was securely capped and labeled upon collection. A disposable section of 1/4-inch polyethylene tubing was utilized to connect the SIM-certified Summa canister to the barbed fitting located at the top of the vapor pin. During sample collection, a leak test using helium was performed to document that a representative soil vapor sample is collected for chemical analysis. Following sample collection, the tubing was removed, barbed fitting capped and flush-mount cover returned and secured.

CHEMICAL ANALYSIS

The sub-slab soil vapor samples were submitted to Fremont Analytical, located in Seattle, Washington for chemical analysis for the following Site contaminants:

- Petroleum equivalent carbon (EC) fractions including EC5-8 (aliphatics), EC9-12 (aliphatics) and EC9-10 (aromatics) by Modified TO-15 Air-Phase Petroleum Hydrocarbon (APH) analysis.
- BETX and naphthalene by EPA Method TO-15.
- Helium by Modified ASTM D-1496.

Compliance Monitoring Plan Deviations

The November 2024 groundwater and soil vapor monitoring and sample collection were completed consistent with the CMP with the following exceptions:

- A VOC trip blank sample was not submitted and analyzed with the groundwater samples. The subsequent analysis of the groundwater samples for VOCs did not identify analytes at concentrations greater than the laboratory reporting limits, which were less than the applicable MTCA cleanup levels. Therefore, although a VOC trip blank sample was not submitted, the quality assurance/quality control (QA/QC) review did not indicate the need to qualify the sample analytical results.
- Due to laboratory error, helium analysis was not performed on the samples submitted for air analysis. Based on the detected concentrations of benzene and toluene in the analyzed samples, the sub-slab sampling activities were considered effective in documenting the sub-slab soil vapor conditions. Therefore, additional action was not considered to be necessary for the initial November 2024 sampling round. GeoEngineers will review the results of the next semi-annual soil vapor monitoring event to evaluate whether the initial results are representative of sub-slab soil vapor conditions.

Summary of Results

GROUNDWATER FLOW

Measured groundwater elevations ranged between 34.18- and 35.91-feet referenced to North American Vertical Datum 1988 (NAVD88) during the second round of post-construction quarterly groundwater monitoring event. Based on the measured groundwater elevations, the groundwater flow at the Site is to the west-southwest consistent with the first round of monitoring.

Groundwater elevations measured during each quarterly sampling event are summarized in Table 2 and shown in Figure 2.

CHEMICAL ANALYTICAL RESULTS

Groundwater

The results of the second round of post-construction groundwater monitoring (Round 2 Groundwater Monitoring Event) are presented in Table 3 and are summarized below:

- **GEI-11** – Contaminants listed above were not detected at concentrations greater than the laboratory reporting limits that were less than their corresponding groundwater cleanup levels.
- **GEI-12** – Contaminants listed above were not detected at concentrations greater than the laboratory reporting limits that were less than their corresponding groundwater cleanup levels.
- **GEI-13** – Contaminants listed above were not detected at concentrations greater than the laboratory with reporting limits that were less than their corresponding groundwater cleanup levels.

Soil Vapor

The results of the initial post-construction soil vapor monitoring (Round 1 Soil Vapor Monitoring Event) are presented in Table 4 and are summarized below:

- **VP-1** – Contaminants listed above either were not detected or were detected at concentrations less than their corresponding soil vapor screening levels.
- **VP-2** – Contaminants listed above either were not detected or were detected at concentrations less than their corresponding soil vapor screening levels.

References

Washington State Department of Ecology (Ecology) 2022. Cleanup Action Plan, Seventh Avenue Service, 701 South Jackson Street, Seattle, WA 98104 King, County Parcel #5247802725, CSID: 11348, FSID: 99187287. Prepared by the Washington State Department of Ecology. September 20, 2022.

GeoEngineers Inc. (GeoEngineers) 2024. Post-Construction Compliance Monitoring Plan, 701 South Jackson Property. Prepared for South Jackson Partners LLC. File No. 24504-001-01. August 16, 2024.

Post-construction groundwater and soil vapor conditions at the Site will continue to be evaluated and documented in accordance with the CAP and CMP. Please contact us with any questions or concerns.

Sincerely,
GeoEngineers, Inc.,

Robert S. Trahan, LG
Senior Environmental Scientist

Tim L. Syverson, LHG
Associate Environmental Geologist

RST:JMH:ch

Attachments:
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Laboratory Data Report

Tables

Table 1

Monitoring Well Completion Details

701 South Jackson Street

Seattle, Washington

Monitoring Well[1]	Date Installed	Installed By	Ecology Well Identification	Ground Elevation[3] (ft)	Top of Casing Elevation (ft)	Bottom of Casing Elevation (ft)	Total Well Depth (ft bgs)	Screen Interval (ft bgs)	Well Casing and Screen Specifications[2]	Monitoring Well Coordinates (Latitude/Longitude)
GEI-11	04/06/22	GeoEngineers	BNC-885	93.18	92.68	22.68	70	60.0 - 70.0	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	47.598851 -122.323695
GEI-12	04/05/22	GeoEngineers	BNC-886	97.58	97.08	22.08	75	65.0 - 75.0	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	47.599017 -122.323695
GEI-13	06/06/24	GeoEngineers	BPW-535	102.54	102.02	27.54	75	65.0 - 75.0	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	47.599083 -122.323348

Notes:

[1] Monitoring well locations are shown on Figure 2.

[2] Monitoring wells were installed using hollow-stem auger (HSA) drilling methods.

[3] Elevation referenced to North American Vertical Datum 1988 (NAVD88).

ft = feet

bgs = below ground surface

PVC = polyvinyl chloride

Table 2

Post-Construction Groundwater Elevation and Field Parameters

701 South Jackson Street

Seattle, Washington

Groundwater Monitoring Well[1]	Groundwater Monitoring Event	Date Sampled	Top of Casing Elevation[2] (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	pH	Specific Conductance (mS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Turbidity (NTU)
GEI-11	Round 1	08/20/24	92.68	58	34.68	7.40	0.914	17.0	1.46	40.0	0.594	20.0
	Round 2	11/26/24		58.5	34.18	7.28	0.852	14.9	1.68	85.4	--	6.7
GEI-12	Round 1	08/20/24	97.08	61.6	35.48	7.31	0.870	17.4	0.41	38.0	0.565	2.39
	Round 2	11/26/24		61.92	35.16	7.25	0.799	15.8	0.40	110.8	--	18.86
GEI-13	Round 1	08/20/24	102.54	66.19	36.35	7.28	0.840	17.0	2.70	43.2	0.548	4.11
	Round 2	11/26/24		66.63	35.91	7.21	0.780	15.4	3.44	124.4	--	3.84

Notes:

[1] Monitoring well locations shown on Figure 2.

[2] Elevation referenced to North American Vertical Datum 1988 (NAVD88).

°C = degree Celsius

ft = feet

g/L = grams per liter

mg/L = milligrams per liter

mV = millivolt

NTU = Nephelometric Turbidity Unit

ORP = oxidation/reduction potential

ppt = parts per thousand

TDS = total dissolved solids

mS/cm = milli- Siemens per centimeter

-- = not measured

Table 3

Post-Construction Groundwater Chemical Analytical Data

701 South Jackson Street

Seattle, Washington

Sample Location[1]	GEI-11		GEI-12		GEI-13				MTCA Cleanup Level[2]
Groundwater Monitoring Event	Round 1	Round 2	Round 1	Round 2	Round 1	Round 1	Round 2	Round 2	
Sample Identification	GEI-11-082024	GEI-11-112624	GEI-12-082024	GEI-12-112624	GEI-13-082024	DUP-082024	GEI-13-112624	DUP-112624	
Sample Date	08/20/24	11/26/24	08/20/24	11/26/24	08/20/24	08/20/24	11/26/24	11/26/24	
Petroleum Hydrocarbons by NWTPH-G/Dx (µg/L)									
Gasoline-Range	100 U	50 U	100 U	50 U	100 U	100 U	50 U	50 U	800/1,000[4]
Diesel-Range	91.9 U	96.9 U	92.1 U	96.1 U	93.3 U	92.8 U	99.4 U	103 U	500
Heavy Oil-Range	138 U	145 U	138 U	144 U	140 U	139 U	149 U	154 U	
Total Diesel and Heavy Oil-Range	230 U	242 U	230 U	240 U	233 U	232 U	248 U	257 U	500
Volatile Organic Compounds (VOCs) by EPA 8260D (µg/L)									
Benzene	0.200 U	0.100 U	0.200 U	0.100 U	0.200 U	0.200 U	0.100 U	0.100 U	5
Toluene	0.500 U	0.200 U	0.500 U	0.200 U	0.500 U	0.500 U	0.200 U	0.200 U	1,000
Ethylbenzene	0.500 U	0.100 U	0.500 U	0.100 U	0.500 U	0.500 U	0.100 U	0.100 U	700
Total Xylenes	1.00 U	0.200 U	1.00 U	0.200 U	1.00 U	1.00 U	0.200 U	0.200 U	1,000
1,2- Dibromoethane (EDB)	0.00985 U	0.0100 U	0.00953 U	0.0100 U	0.00984 U	0.00911 U	0.0100 U	0.0100 U	0.01
1,2- Dichloroethane (EDC)	0.200 U	0.100 U	0.200 U	0.100 U	0.200 U	0.200 U	0.100 U	0.100 U	5
Methyl tert-butyl ether (MTBE)	0.500 U	0.100 U	0.500 U	0.100 U	0.500 U	0.500 U	0.100 U	0.100 U	20
Total Metals by EPA 200.8/245.1 (µg/L)									
Lead	0.300 U	0.300 U	0.300 U	**0.491**	0.300 U	0.300 U	0.300 U	0.300 U	15
Dissolved Metals by EPA 200.8/245.1 (µg/L)									
Lead	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U	15
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270 (µg/L)									
1-Methylnaphthalene	0.0949 U	**0.144**	0.0935 U	0.0952 U	0.0939 U	0.0949 U	0.0952 U	0.0965 U	160
2-Methylnaphthalene	0.0949 U	**0.192**	0.0935 U	0.0952 U	0.0939 U	0.0949 U	0.0952 U	0.0965 U	32
Naphthalene	0.0949 U	0.0958 U	0.0935 U	0.0952 U	0.0939 U	0.0949 U	0.0952 U	0.0965 U	560

Notes:

[1] Approximate sample locations are shown on Figure 2.

[2] Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Groundwater Cleanup Levels. MTCA Method B cleanup level used when Method A cleanup level has not been established.

[3] When benzene is present, the gasoline range cleanup level is 800 µg/L. When benzene is not present the gasoline range cleanup level is 1,000 µg/L.

bgs = below ground surface

µg/L = micrograms per liter

NWTPH = Northwest Total Petroleum Hydrocarbon

EPA = United States Environmental Protection Agency

U = chemical of concern not detected greater than the laboratory reporting limit shown

-- = not analyzed

NE = not established

Bold font type indicates the chemical of concern was detected.

Table 4

Post-Construction Soil Vapor Chemical Analytical Data

701 South Jackson Street

Seattle, Washington

Sample Location[1]		VP-1	VP-2	Sub-Slab Soil Gas Screening Level[2]	
Sample Identification		VP-1-112624	VP-2-112624		
Sample Date	CAS Number	11/26/24	11/26/24	Method B Non-Cancer	Method B Cancer
Helium by Modified ASTM D-1496					
Helium (percent)	--	--[3]	--[3]	NE	NE
Petroleum Hydrocarbons by Modified TO-15 (µg/m^3)					
Aliphatic Hydrocarbons (EC5-8)	--	105.7 U	105.7 U	NE	NE
Aliphatic Hydrocarbons (EC9-12)	--	70.5 U	70.5 U	NE	NE
Aromatic Hydrocarbons (EC9-10)	--	21.2 U	21.2 U	NE	NE
Total Petroleum Hydrocarbons (TPH)	--	105.7 U	105.7 U	NE	NE
Volatile Organic Compounds (VOCs) by TO-15 (µg/m^3)					
Benzene	71-43-2	**0.904**	**0.607**	460	11
Toluene	108-88-3	**11.57**	7.54 U	76,000	NE
Ethylbenzene	100-41-4	8.68 U	8.68 U	15,000	NE
Xylenes	1330-20-7	17.37	17.37 U	1,500	NE
Naphthalene	91-20-3	0.29 U	0.29 U	46	2.5

Notes:

[1] Approximate exploration locations shown on Figure 3.

[2] Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method B soil gas screening level.

[3] Helium was not analyzed by the laboratory prior to sample disposal in error.

µg/m^3 = micrograms per cubic meter

NE = not established

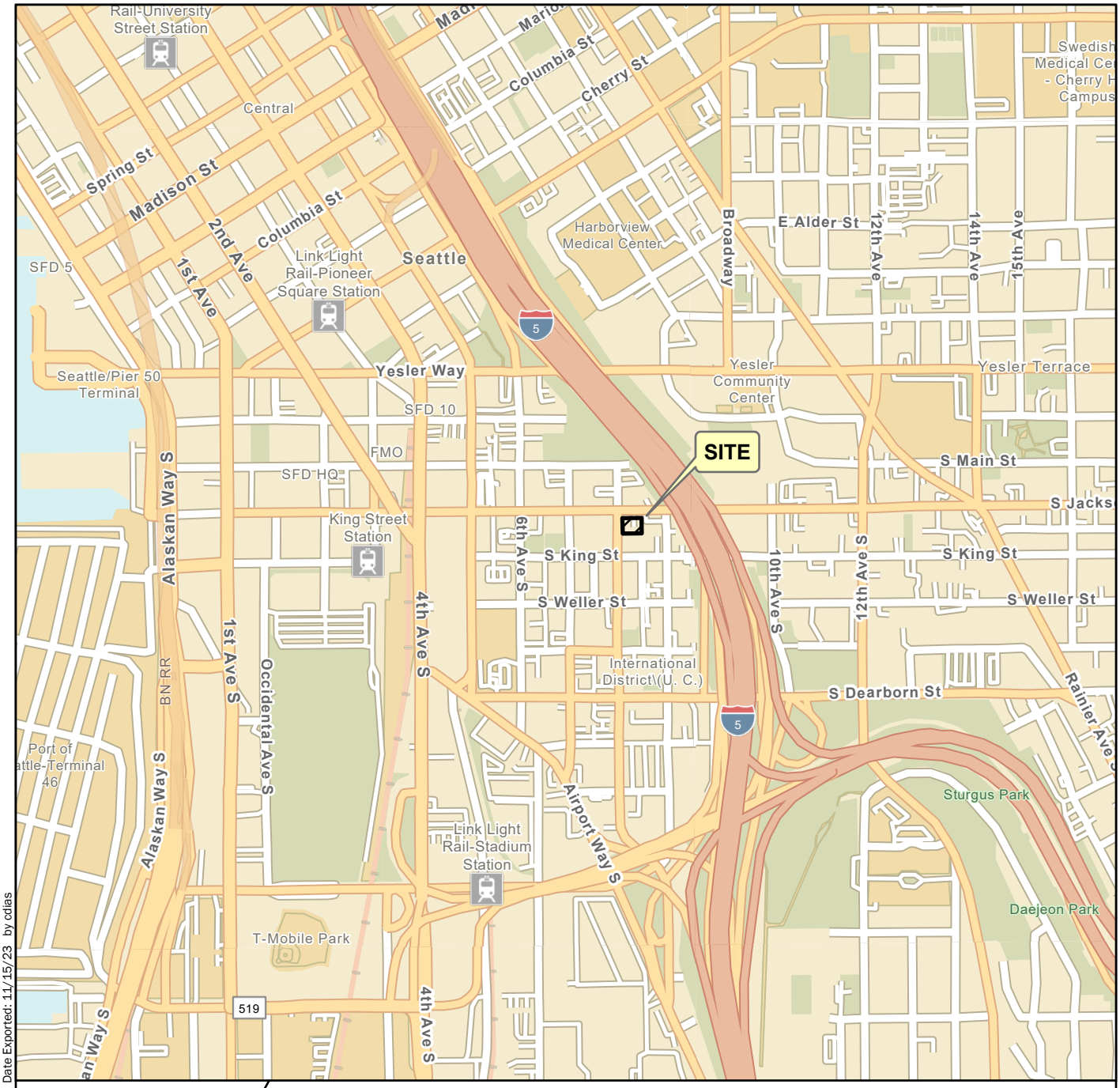
"--" = not tested

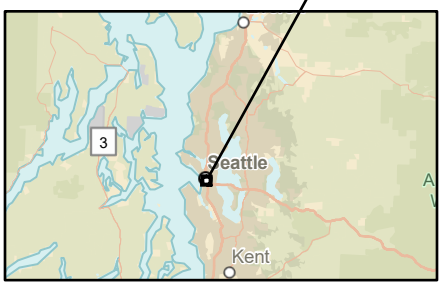
U = Analyte not detected above the reported sample quantization limit

Bold indicates analyte was detected.

Shading indicates analyte was detected at a concentration greater than the MTCA screening level.

Figures





N

0 1,000

Feet

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.

Vicinity Map

701 South Jackson Street
Seattle, Washington

GeoEngineers

Figure 1

Date Exported: 11/15/23 by cdias

P:\24\24504001\GIS\24504001_Project\24504001_Project.aprx\VicinityMap

Legend

- Property Boundary
- Parcel Boundary
- Topographic Contour (Feet, NAVD88)
- Property Redevelopment Area
- Extent of Residual Soil Contamination
- Vapor Barrier (Planned Extent)
- Monitoring Well (Existing)
- Monitoring Well (New)
- Soil Vapor Pin (New)
- Inferred Groundwater Flow Direction
- 35.5 Groundwater Contour (Feet, NAVD88)

Note(s):

1. Elevations on this plan reference the North American Vertical Datum of 1988 (NAVD88).

Source(s):

- Aerial from Google Earth Pro dated 5/26/2018.
- LiDAR from Puget Sound Lidar Consortium dated 2016

Projection: WA State Plane, North Zone, NAD83, US Foot

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.

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0 20

Feet

Site Plan

701 South Jackson Street
Seattle, Washington

GeoEngineers

Figure 2

P:\24\24504001\CAD\04 Post-Construction Groundwater Monitoring Plan\24504001 03_F02_Site Plan.dwg 2 Date Exported:9/19/2024 2:51 PM - by Jackson N. Fellows

Laboratory Data Report

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

GeoEngineers
Robert Trahan
2101 4th Ave, Suite 950
Seattle, WA 98121

RE: 701/709 South Jackson, 24504-001-04
Work Order Number: 2411552

December 09, 2024

Attention Robert Trahan:

Fremont Analytical, Inc, an Alliance Technical Group company, received 3 sample(s) on 11/27/2024 for the analyses presented in the following report.

VOCs and APH by EPA Method TO-15/MA APH
Volatile Organic Compounds by EPA TO-15

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *12/09/2024*

CLIENT: GeoEngineers
Project: 701/709 South Jackson
Work Order: 2411552

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2411552-001	VP-2-112624	11/26/2024 12:00 AM	11/27/2024 12:13 PM
2411552-002	VP-1-112624	11/26/2024 12:00 AM	11/27/2024 12:13 PM
2411552-003	Trip Blank	11/26/2024 12:00 AM	11/27/2024 12:13 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2411552**

Date: **12/9/2024**

CLIENT: GeoEngineers
Project: 701/709 South Jackson

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Notation: Samples were inadvertently lost before the He ran and the TO-15 VOC's weren't able to be rerun. We sincerely apologize for any inconvenience this may have caused.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2411552**
Date Reported: **12/9/2024**

Client: GeoEngineers
Collection Date: 11/26/2024
Project: 701/709 South Jackson
Lab ID: 2411552-001
Matrix: Soil Gas
Client Sample ID: **VP-2-112624**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOCs and APH by EPA Method TO-15/MA APH				Batch ID: R96040		Analyst: LB
Aliphatic Hydrocarbon (EC5-8)	ND	30.0		ppbv	1	11/28/2024 6:46:49 AM
Aliphatic Hydrocarbon (EC9-12)	ND	20.0		ppbv	1	11/28/2024 6:46:49 AM
Aromatic Hydrocarbon (EC9-10)	ND	6.00		ppbv	1	11/28/2024 6:46:49 AM
Surr: 4-Bromofluorobenzene	97.2	70 - 130		%Rec	1	11/28/2024 6:46:49 AM
Volatile Organic Compounds by EPA TO-15				Batch ID: R96025		Analyst: LB
Benzene	0.190	0.0400	I	ppbv	1	11/28/2024 6:46:49 AM
Toluene	ND	2.00	I	ppbv	1	11/28/2024 6:46:49 AM
Ethylbenzene	ND	2.00	I	ppbv	1	11/28/2024 6:46:49 AM
m,p-Xylene	ND	4.00	I	ppbv	1	11/28/2024 6:46:49 AM
o-Xylene	ND	2.00	I	ppbv	1	11/28/2024 6:46:49 AM
Naphthalene	ND	0.0560	I	ppbv	1	11/28/2024 6:46:49 AM
Surr: 4-Bromofluorobenzene	93.0	70 - 130	I	%Rec	1	11/28/2024 6:46:49 AM

NOTES:
I - Internal standards were outside of acceptance criteria. Result is an estimate.

Analytical Report

Work Order: **2411552**
Date Reported: **12/9/2024**

Client: GeoEngineers
Collection Date: 11/26/2024
Project: 701/709 South Jackson
Lab ID: 2411552-002
Matrix: Soil Gas
Client Sample ID: **VP-1-112624**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOCs and APH by EPA Method TO-15/MA APH				Batch ID: R96040		Analyst: LB
Aliphatic Hydrocarbon (EC5-8)	ND	30.0		ppbv	1	11/28/2024 8:16:45 AM
Aliphatic Hydrocarbon (EC9-12)	ND	20.0		ppbv	1	11/28/2024 8:16:45 AM
Aromatic Hydrocarbon (EC9-10)	ND	6.00		ppbv	1	11/28/2024 8:16:45 AM
Surr: 4-Bromofluorobenzene	96.6	70 - 130		%Rec	1	11/28/2024 8:16:45 AM
Volatile Organic Compounds by EPA TO-15				Batch ID: R96025		Analyst: LB
Benzene	0.283	0.0400	I	ppbv	1	11/28/2024 8:16:45 AM
Toluene	3.07	2.00	I	ppbv	1	11/28/2024 8:16:45 AM
Ethylbenzene	ND	2.00	I	ppbv	1	11/28/2024 8:16:45 AM
m,p-Xylene	ND	4.00	I	ppbv	1	11/28/2024 8:16:45 AM
o-Xylene	ND	2.00	I	ppbv	1	11/28/2024 8:16:45 AM
Naphthalene	ND	0.0560	I	ppbv	1	11/28/2024 8:16:45 AM
Surr: 4-Bromofluorobenzene	92.4	70 - 130	I	%Rec	1	11/28/2024 8:16:45 AM

NOTES:
I - Internal standards were outside of acceptance criteria. Result is an estimate.

Analytical Report

Work Order: **2411552**
Date Reported: **12/9/2024**

Client: GeoEngineers
Collection Date: 11/26/2024
Project: 701/709 South Jackson
Lab ID: 2411552-003
Matrix: Air
Client Sample ID: **Trip Blank**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOCs and APH by EPA Method TO-15/MA APH				Batch ID: R96040		Analyst: LB
Aliphatic Hydrocarbon (EC5-8)	ND	30.0		ppbv	1	11/28/2024 9:48:49 AM
Aliphatic Hydrocarbon (EC9-12)	ND	20.0		ppbv	1	11/28/2024 9:48:49 AM
Aromatic Hydrocarbon (EC9-10)	ND	6.00		ppbv	1	11/28/2024 9:48:49 AM
Surr: 4-Bromofluorobenzene	94.0	70 - 130		%Rec	1	11/28/2024 9:48:49 AM
Volatile Organic Compounds by EPA TO-15				Batch ID: R96025		Analyst: LB
Benzene	ND	0.0400	I	ppbv	1	11/28/2024 9:48:49 AM
Toluene	ND	2.00	I	ppbv	1	11/28/2024 9:48:49 AM
Ethylbenzene	ND	2.00	I	ppbv	1	11/28/2024 9:48:49 AM
m,p-Xylene	ND	4.00	I	ppbv	1	11/28/2024 9:48:49 AM
o-Xylene	ND	2.00	I	ppbv	1	11/28/2024 9:48:49 AM
Naphthalene	ND	0.0560	I	ppbv	1	11/28/2024 9:48:49 AM
Surr: 4-Bromofluorobenzene	89.9	70 - 130	I	%Rec	1	11/28/2024 9:48:49 AM

NOTES:
I - Internal standards were outside of acceptance criteria. Result is an estimate.

Work Order: 2411552
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

VOCs and APH by EPA Method TO-15/MA APH

Sample ID: **LCS-R96040** SampType: **LCS** Units: **ppbv** Prep Date: **11/28/2024** RunNo: **96040**
Client ID: **LCSW** Batch ID: **R96040** Analysis Date: **11/28/2024** SeqNo: **2003792**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (EC5-8)	12.8	7.50	12.00	0	107	70	130				
Aliphatic Hydrocarbon (EC9-12)	11.9	5.00	12.00	0	99.4	70	130				
Aromatic Hydrocarbon (EC9-10)	9.20	1.50	10.00	0	92.0	70	130				
Surr: 4-Bromofluorobenzene	3.82		4.000		95.4	70	130				

Sample ID: **MB-R96040** SampType: **MBLK** Units: **ppbv** Prep Date: **11/28/2024** RunNo: **96040**
Client ID: **MBLKW** Batch ID: **R96040** Analysis Date: **11/28/2024** SeqNo: **2003793**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (EC5-8)	ND	7.50									
Aliphatic Hydrocarbon (EC9-12)	ND	5.00									
Aromatic Hydrocarbon (EC9-10)	ND	1.50									
Surr: 4-Bromofluorobenzene	3.76		4.000		94.0	70	130				

Sample ID: **2411552-003AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/28/2024** RunNo: **96040**
Client ID: **Trip Blank** Batch ID: **R96040** Analysis Date: **11/28/2024** SeqNo: **2003797**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (EC5-8)	ND	30.0						0		25	
Aliphatic Hydrocarbon (EC9-12)	ND	20.0						0		25	
Aromatic Hydrocarbon (EC9-10)	ND	6.00						0		25	
Surr: 4-Bromofluorobenzene	15.1		16.00		94.1	70	130		0		

Work Order: 2411552
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **LCS-R96025** SampType: **LCS** Units: **ppbv** Prep Date: **11/27/2024** RunNo: **96025**
Client ID: **LCSW** Batch ID: **R96025** Analysis Date: **11/27/2024** SeqNo: **2003600**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.11	0.0100	2.000	0	105	70	130				
Toluene	2.33	0.500	2.000	0	117	70	130				
Ethylbenzene	2.13	0.500	2.000	0	106	70	130				
m,p-Xylene	4.22	1.00	4.000	0	106	70	130				
o-Xylene	2.12	0.500	2.000	0	106	70	130				
Naphthalene	2.09	0.0140	2.000	0	104	70	130				
Surr: 4-Bromofluorobenzene	3.99		4.000		99.7	70	130				

Sample ID: **MB-R96025** SampType: **MBLK** Units: **ppbv** Prep Date: **11/27/2024** RunNo: **96025**
Client ID: **MBLKW** Batch ID: **R96025** Analysis Date: **11/27/2024** SeqNo: **2003601**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0100									
Toluene	ND	0.500									
Ethylbenzene	ND	0.500									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Naphthalene	ND	0.0140									
Surr: 4-Bromofluorobenzene	3.55		4.000		88.9	70	130				

Sample ID: **2411460-002AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/28/2024** RunNo: **96025**
Client ID: **BATCH** Batch ID: **R96025** Analysis Date: **11/28/2024** SeqNo: **2003612**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.15	0.0400						1.163	1.11	25	
Toluene	ND	2.00						0		25	
Ethylbenzene	ND	2.00						0		25	
m,p-Xylene	ND	4.00						0		25	
o-Xylene	ND	2.00						0		25	
Naphthalene	ND	0.0560						0		25	
Surr: 4-Bromofluorobenzene	14.8		16.00		92.5	70	130		0		

Work Order: 2411552
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **2411460-002AREP** SampType: **REP** Units: **ppbv** Prep Date: **11/28/2024** RunNo: **96025**
Client ID: **BATCH** Batch ID: **R96025** Analysis Date: **11/28/2024** SeqNo: **2003612**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample Log-In Check List

Client Name:	GEI	Work Order Number:	2411552
Logged by:	Morgan Wilson	Date Received:	11/27/2024 12:13:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☐	No ☐	NA ☑
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Max Nelson	Date:	11/27/2024
By Whom:	Morgan Wilson	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Confirm Analysis, Trip Blank Canister		
Client Instructions:	See Updated COC, Run TB Canister		

17. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Air Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical — An Alliance Technical Group Company

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 11/26/24 Page: 1 of: 1

Laboratory Project No (Internal): 2411552

Special Remarks:

Project Name: 701/709 South Jackson

Project No: 24504-001-04

Client: GeoEngineers

Address: 2101 4th Ave, Suite 950

Location: Seattle WA

City, State, Zip: Seattle WA 98121

Collected by: MN

Telephone: 206 2402300

Reports to (PM): Robert Trahan

Fax: rtrahan@geoengineers.com

Email (PM): rtrahan@geoengineers.com

Disposal: Samples will be disposed of one week after report is submitted unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

#	Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (" Hg)	Sample End Date & Time	Field Final Sample Pressure (" Hg)	Analysis: Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	GX/BTEX 8260		Comments
1	VP-2-~~241124~~ 112624	4691 / FC-28	S	1.4L	150CC/MIN	11/26/24	30.0	11/26/24	5.0											
2	VP-1-~~241124~~ 112624	4686 / FC-10	S	1.4L	150CC/MIN	11/26/24	30.0	11/26/24	10.0											* Vacuum stalled at 10" for 10 min. Possibly gauge issue
3	Trip blank	10374		1.4L																
4																				
5																				

* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE RNG = Biogas / Landfill / Digester

** Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

*** Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☐ Other, specify in comments

Turn-Around Time: ☐ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day ____ specify

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Max-Henry Nelson	11/27/24	x		
x	Thomas Krull	11/27	x	Jon Jack Hawthorne	11/27/24 1213

Air Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
An Alliance Technical Group Company

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 11/26/24 Page: 1 of: 1

Laboratory Project No (Internal): 2411552

Special Remarks: Update per MN -mw 11/27/24

Project Name: 701/709 South Jackson

Project No: 24504-001-04

Client: GeoEngineers

Address: 2101 4th Ave, Suite 950

Location: Seattle WA

City, State, Zip: Seattle WA 98121

Collected by: MN

Telephone: 206 240 2300

Reports to (PM): Robert Trahan

Disposal: Samples will be disposed of one week after report is submitted unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

Fax: rtrahan@geoengineers.com

Email (PM): rtrahan@geoengineers.com

	Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (" Hg)	Sample End Date & Time	Field Final Sample Pressure (" Hg)	Analysis: Full list VOCs TO15	Select VOCs TO15 ***	APH TO15 *	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	Helium using Modified ASTM D-1496	Comments
1	VP-2-~~241124~~ 112624	4691 FC-28	S	1.4L	150CC/MIN	11/26/24	30.0	11/26/24	5.0		X	X						X	
2	VP-1-~~241126~~ 112624	4686 FC-10	S	1.4L	150CC/MIN	11/26/24	30.0	11/26/24	10.0		X	X						X	* Vacuum stalled at 10" for 10 min. Possibly gauge issue
3	Trip blank	10374		1.4L							X	X						X	
4																			
5																			

(MN-2024-11-27)

** *Petroleum equivalent carbon (EC) fractions including EC5-8 (aliphatics), EC9-12 (aliphatics) and EC9-10 (aromatics) by Modified TO-15 Air-Phase Petroleum Hydrocarbon (APH) analysis.

**please fill canister with inert gas and analyze it.

* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE RNG = Biogas / Landfill / Digester

** Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

*** Select one: ☒ BTEXN & APH ☐ PCE & Breakdown ☐ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-Around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ specify

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Max-Henry Nelson	11/27/24	x		
x	Thomas Krull	11/27	x	Jon Jack Hawthorne	11/27/24 1213

COC Air 1.7 - 12.15.23

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

GeoEngineers
Robert Trahan
2101 4th Ave, Suite 950
Seattle, WA 98121

RE: 701/709 South Jackson, 24504-001-04
Work Order Number: 2411560

December 06, 2024

Attention Robert Trahan:

Fremont Analytical, Inc, an Alliance Technical Group company, received 4 sample(s) on 11/27/2024 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx
Dissolved Metals by EPA 6020B
Gasoline by NWTPH-Gx
PAHs by EPA Method 8270E SIM
Total Metals by EPA 6020B
Volatile Organic Compounds by EPA 8260D SIM

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Lyann Rivera
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *12/06/2024*

CLIENT: GeoEngineers
Project: 701/709 South Jackson
Work Order: 2411560

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2411560-001	GEI-11-112624	11/26/2024 2:15 PM	11/27/2024 12:13 PM
2411560-002	GEI-12-112624	11/26/2024 4:45 PM	11/27/2024 12:13 PM
2411560-003	GEI-13-112624	11/26/2024 5:45 PM	11/27/2024 12:13 PM
2411560-004	DUP-112624	11/26/2024 12:00 PM	11/27/2024 12:13 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original

Case Narrative

WO#: **2411560**

Date: **12/6/2024**

CLIENT: GeoEngineers

Project: 701/709 South Jackson

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Collection Date: 11/26/2024 2:15:00 PM
Project: 701/709 South Jackson
Lab ID: 2411560-001
Matrix: Water
Client Sample ID: **GEI-11-112624**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx				Batch ID: 46037		Analyst: AP
Diesel Range Organics	ND	96.9		µg/L	1	12/5/2024 7:10:29 PM
Heavy Oil	ND	145		µg/L	1	12/5/2024 7:10:29 PM
Total Petroleum Hydrocarbons	ND	242		µg/L	1	12/5/2024 7:10:29 PM
Surr: 2-Fluorobiphenyl	94.2	50 - 150		%Rec	1	12/5/2024 7:10:29 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	12/5/2024 7:10:29 PM
PAHs by EPA Method 8270E SIM				Batch ID: 46001		Analyst: RG
Naphthalene	ND	0.0958		µg/L	1	12/5/2024 7:58:41 PM
2-Methylnaphthalene	0.192	0.0958		µg/L	1	12/5/2024 7:58:41 PM
1-Methylnaphthalene	0.144	0.0958		µg/L	1	12/5/2024 7:58:41 PM
Surr: 2-Fluorobiphenyl	103	45.7 - 127		%Rec	1	12/5/2024 7:58:41 PM
Surr: Terphenyl-d14	116	41.1 - 145		%Rec	1	12/5/2024 7:58:41 PM
Gasoline by NWTPH-Gx				Batch ID: 46012		Analyst: KJ
Gasoline Range Organics	ND	50.0		µg/L	1	12/3/2024 7:16:20 PM
Surr: Toluene-d8	95.4	65 - 135		%Rec	1	12/3/2024 7:16:20 PM
Surr: 4-Bromofluorobenzene	93.5	65 - 135		%Rec	1	12/3/2024 7:16:20 PM
Volatile Organic Compounds by EPA 8260D SIM				Batch ID: 46053		Analyst: KJ
methyl tert-butyl ether (MTBE)	ND	0.100		µg/L	1	12/5/2024 4:07:05 PM
1,2-Dichloroethane (EDC)	ND	0.100		µg/L	1	12/5/2024 4:07:05 PM
Benzene	ND	0.100		µg/L	1	12/5/2024 4:07:05 PM
Toluene	ND	0.200		µg/L	1	12/5/2024 4:07:05 PM
1,2-Dibromoethane (EDB)	ND	0.0100		µg/L	1	12/5/2024 4:07:05 PM
Ethylbenzene	ND	0.100		µg/L	1	12/5/2024 4:07:05 PM
m,p-Xylene	ND	0.200		µg/L	1	12/5/2024 4:07:05 PM
o-Xylene	ND	0.100		µg/L	1	12/5/2024 4:07:05 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	12/5/2024 4:07:05 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	12/5/2024 4:07:05 PM
Surr: 1-Bromo-4-fluorobenzene	96.9	80 - 120		%Rec	1	12/5/2024 4:07:05 PM
Dissolved Metals by EPA 6020B				Batch ID: 46042		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 3:18:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-001
Client Sample ID: **GEI-11-112624**

Collection Date: 11/26/2024 2:15:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 46040		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 1:56:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-002
Client Sample ID: **GEI-12-112624**

Collection Date: 11/26/2024 4:45:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx				Batch ID: 46037		Analyst: AP
Diesel Range Organics	ND	96.1		µg/L	1	12/5/2024 7:22:16 PM
Heavy Oil	ND	144		µg/L	1	12/5/2024 7:22:16 PM
Total Petroleum Hydrocarbons	ND	240		µg/L	1	12/5/2024 7:22:16 PM
Surr: 2-Fluorobiphenyl	94.3	50 - 150		%Rec	1	12/5/2024 7:22:16 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	12/5/2024 7:22:16 PM
PAHs by EPA Method 8270E SIM				Batch ID: 46001		Analyst: RG
Naphthalene	ND	0.0952		µg/L	1	12/5/2024 8:14:37 PM
2-Methylnaphthalene	ND	0.0952		µg/L	1	12/5/2024 8:14:37 PM
1-Methylnaphthalene	ND	0.0952		µg/L	1	12/5/2024 8:14:37 PM
Surr: 2-Fluorobiphenyl	110	45.7 - 127		%Rec	1	12/5/2024 8:14:37 PM
Surr: Terphenyl-d14	109	41.1 - 145		%Rec	1	12/5/2024 8:14:37 PM
Gasoline by NWTPH-Gx				Batch ID: 46012		Analyst: KJ
Gasoline Range Organics	ND	50.0		µg/L	1	12/3/2024 7:49:24 PM
Surr: Toluene-d8	96.1	65 - 135		%Rec	1	12/3/2024 7:49:24 PM
Surr: 4-Bromofluorobenzene	93.9	65 - 135		%Rec	1	12/3/2024 7:49:24 PM
Volatile Organic Compounds by EPA 8260D SIM				Batch ID: 46053		Analyst: KJ
methyl tert-butyl ether (MTBE)	ND	0.100		µg/L	1	12/5/2024 4:39:05 PM
1,2-Dichloroethane (EDC)	ND	0.100		µg/L	1	12/5/2024 4:39:05 PM
Benzene	ND	0.100		µg/L	1	12/5/2024 4:39:05 PM
Toluene	ND	0.200		µg/L	1	12/5/2024 4:39:05 PM
1,2-Dibromoethane (EDB)	ND	0.0100		µg/L	1	12/5/2024 4:39:05 PM
Ethylbenzene	ND	0.100		µg/L	1	12/5/2024 4:39:05 PM
m,p-Xylene	ND	0.200		µg/L	1	12/5/2024 4:39:05 PM
o-Xylene	ND	0.100		µg/L	1	12/5/2024 4:39:05 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	12/5/2024 4:39:05 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	12/5/2024 4:39:05 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	80 - 120		%Rec	1	12/5/2024 4:39:05 PM
Dissolved Metals by EPA 6020B				Batch ID: 46042		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 3:21:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-002
Client Sample ID: **GEI-12-112624**

Collection Date: 11/26/2024 4:45:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 46040		Analyst: ME
Lead	0.491	0.300		µg/L	1	12/5/2024 1:59:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-003
Client Sample ID: **GEI-13-112624**

Collection Date: 11/26/2024 5:45:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx				Batch ID: 46037		Analyst: AP
Diesel Range Organics	ND	99.4		µg/L	1	12/5/2024 7:34:04 PM
Heavy Oil	ND	149		µg/L	1	12/5/2024 7:34:04 PM
Total Petroleum Hydrocarbons	ND	248		µg/L	1	12/5/2024 7:34:04 PM
Surr: 2-Fluorobiphenyl	96.5	50 - 150		%Rec	1	12/5/2024 7:34:04 PM
Surr: o-Terphenyl	105	50 - 150		%Rec	1	12/5/2024 7:34:04 PM
PAHs by EPA Method 8270E SIM				Batch ID: 46001		Analyst: RG
Naphthalene	ND	0.0952		µg/L	1	12/5/2024 8:30:34 PM
2-Methylnaphthalene	ND	0.0952		µg/L	1	12/5/2024 8:30:34 PM
1-Methylnaphthalene	ND	0.0952		µg/L	1	12/5/2024 8:30:34 PM
Surr: 2-Fluorobiphenyl	100	45.7 - 127		%Rec	1	12/5/2024 8:30:34 PM
Surr: Terphenyl-d14	109	41.1 - 145		%Rec	1	12/5/2024 8:30:34 PM
Gasoline by NWTPH-Gx				Batch ID: 46012		Analyst: KJ
Gasoline Range Organics	ND	50.0		µg/L	1	12/3/2024 8:22:27 PM
Surr: Toluene-d8	95.0	65 - 135		%Rec	1	12/3/2024 8:22:27 PM
Surr: 4-Bromofluorobenzene	93.2	65 - 135		%Rec	1	12/3/2024 8:22:27 PM
Volatile Organic Compounds by EPA 8260D SIM				Batch ID: 46053		Analyst: KJ
methyl tert-butyl ether (MTBE)	ND	0.100		µg/L	1	12/5/2024 5:43:05 PM
1,2-Dichloroethane (EDC)	ND	0.100		µg/L	1	12/5/2024 5:43:05 PM
Benzene	ND	0.100		µg/L	1	12/5/2024 5:43:05 PM
Toluene	ND	0.200		µg/L	1	12/5/2024 5:43:05 PM
1,2-Dibromoethane (EDB)	ND	0.0100		µg/L	1	12/5/2024 5:43:05 PM
Ethylbenzene	ND	0.100		µg/L	1	12/5/2024 5:43:05 PM
m,p-Xylene	ND	0.200		µg/L	1	12/5/2024 5:43:05 PM
o-Xylene	ND	0.100		µg/L	1	12/5/2024 5:43:05 PM
Surr: Dibromofluoromethane	107	80 - 120		%Rec	1	12/5/2024 5:43:05 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	12/5/2024 5:43:05 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	80 - 120		%Rec	1	12/5/2024 5:43:05 PM
Dissolved Metals by EPA 6020B				Batch ID: 46042		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 3:23:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-003
Client Sample ID: **GEI-13-112624**

Collection Date: 11/26/2024 5:45:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 46040		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 2:01:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-004
Client Sample ID: **DUP-112624**

Collection Date: 11/26/2024 12:00:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx				Batch ID: 46037		Analyst: AP
Diesel Range Organics	ND	103		µg/L	1	12/5/2024 7:45:53 PM
Heavy Oil	ND	154		µg/L	1	12/5/2024 7:45:53 PM
Total Petroleum Hydrocarbons	ND	257		µg/L	1	12/5/2024 7:45:53 PM
Surr: 2-Fluorobiphenyl	90.2	50 - 150		%Rec	1	12/5/2024 7:45:53 PM
Surr: o-Terphenyl	99.8	50 - 150		%Rec	1	12/5/2024 7:45:53 PM
PAHs by EPA Method 8270E SIM				Batch ID: 46001		Analyst: RG
Naphthalene	ND	0.0965		µg/L	1	12/5/2024 8:46:31 PM
2-Methylnaphthalene	ND	0.0965		µg/L	1	12/5/2024 8:46:31 PM
1-Methylnaphthalene	ND	0.0965		µg/L	1	12/5/2024 8:46:31 PM
Surr: 2-Fluorobiphenyl	108	45.7 - 127		%Rec	1	12/5/2024 8:46:31 PM
Surr: Terphenyl-d14	124	41.1 - 145		%Rec	1	12/5/2024 8:46:31 PM
Gasoline by NWTPH-Gx				Batch ID: 46012		Analyst: KJ
Gasoline Range Organics	ND	50.0		µg/L	1	12/3/2024 8:55:31 PM
Surr: Toluene-d8	96.3	65 - 135		%Rec	1	12/3/2024 8:55:31 PM
Surr: 4-Bromofluorobenzene	93.8	65 - 135		%Rec	1	12/3/2024 8:55:31 PM
Volatile Organic Compounds by EPA 8260D SIM				Batch ID: 46053		Analyst: KJ
methyl tert-butyl ether (MTBE)	ND	0.100		µg/L	1	12/5/2024 6:15:03 PM
1,2-Dichloroethane (EDC)	ND	0.100		µg/L	1	12/5/2024 6:15:03 PM
Benzene	ND	0.100		µg/L	1	12/5/2024 6:15:03 PM
Toluene	ND	0.200		µg/L	1	12/5/2024 6:15:03 PM
1,2-Dibromoethane (EDB)	ND	0.0100		µg/L	1	12/5/2024 6:15:03 PM
Ethylbenzene	ND	0.100		µg/L	1	12/5/2024 6:15:03 PM
m,p-Xylene	ND	0.200		µg/L	1	12/5/2024 6:15:03 PM
o-Xylene	ND	0.100		µg/L	1	12/5/2024 6:15:03 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	12/5/2024 6:15:03 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	12/5/2024 6:15:03 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	80 - 120		%Rec	1	12/5/2024 6:15:03 PM
Dissolved Metals by EPA 6020B				Batch ID: 46042		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 3:26:00 PM

Analytical Report

Work Order: **2411560**
Date Reported: **12/6/2024**

Client: GeoEngineers
Project: 701/709 South Jackson
Lab ID: 2411560-004
Client Sample ID: **DUP-112624**

Collection Date: 11/26/2024 12:00:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 46040		Analyst: ME
Lead	ND	0.300		µg/L	1	12/5/2024 2:04:00 PM

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Dissolved Metals by EPA 6020B

Sample ID: **MB-46042**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **12/5/2024**	RunNo: **96129**
Client ID: **MBLKW**	Batch ID: **46042**		Analysis Date: **12/5/2024**	SeqNo: **2005944**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.300									

Sample ID: **LCS-46042**	SampType: **LCS**	Units: **µg/L**	Prep Date: **12/5/2024**	RunNo: **96129**
Client ID: **LCSW**	Batch ID: **46042**		Analysis Date: **12/5/2024**	SeqNo: **2005949**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.0	0.300	50.00	0	98.0	80	120				

Sample ID: **2411524-001CDUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **12/5/2024**	RunNo: **96129**
Client ID: **BATCH**	Batch ID: **46042**		Analysis Date: **12/5/2024**	SeqNo: **2005950**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.300						0		20	

Sample ID: **2411524-001CMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **12/5/2024**	RunNo: **96129**
Client ID: **BATCH**	Batch ID: **46042**		Analysis Date: **12/5/2024**	SeqNo: **2005973**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	43.9	0.300	50.00	0	87.9	75	125				

Sample ID: **2411524-001CMSD**	SampType: **MSD**	Units: **µg/L**	Prep Date: **12/5/2024**	RunNo: **96129**
Client ID: **BATCH**	Batch ID: **46042**		Analysis Date: **12/5/2024**	SeqNo: **2005974**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	42.9	0.300	50.00	0	85.9	75	125	43.95	2.34	20	

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Total Metals by EPA 6020B

Sample ID: **MB-46040**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **12/4/2024**	RunNo: **96128**
Client ID: **MBLKW**	Batch ID: **46040**		Analysis Date: **12/5/2024**	SeqNo: **2005924**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.300									

Sample ID: **LCS-46040**	SampType: **LCS**	Units: **µg/L**	Prep Date: **12/4/2024**	RunNo: **96128**
Client ID: **LCSW**	Batch ID: **46040**		Analysis Date: **12/5/2024**	SeqNo: **2005925**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	48.6	0.300	50.00	0	97.1	80	120				

Sample ID: **2411524-001DMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **12/4/2024**	RunNo: **96128**
Client ID: **BATCH**	Batch ID: **46040**		Analysis Date: **12/5/2024**	SeqNo: **2005890**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	47.0	0.300	50.00	0	94.0	75	125				

Sample ID: **2411524-001DMSD**	SampType: **MSD**	Units: **µg/L**	Prep Date: **12/4/2024**	RunNo: **96128**
Client ID: **BATCH**	Batch ID: **46040**		Analysis Date: **12/5/2024**	SeqNo: **2005891**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	34.9	0.300	50.00	0	69.7	75	125	47.02	29.7	20	RS

NOTES:
S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.
R - High RPD observed.

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx

Sample ID: **MB-46037** SampType: **MBLK** Units: **µg/L** Prep Date: **12/4/2024** RunNo: **96167**
Client ID: **MBLKW** Batch ID: **46037** Analysis Date: **12/5/2024** SeqNo: **2006557**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	100									
Heavy Oil	ND	150									
Total Petroleum Hydrocarbons	ND	250									
Surr: 2-Fluorobiphenyl	24.3		25.00		97.0	50	150				
Surr: o-Terphenyl	26.2		25.00		105	50	150				

Sample ID: **LCS-46037** SampType: **LCS** Units: **µg/L** Prep Date: **12/4/2024** RunNo: **96167**
Client ID: **LCSW** Batch ID: **46037** Analysis Date: **12/5/2024** SeqNo: **2006558**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	788	250	1,250	0	63.1	42.5	123				
Surr: 2-Fluorobiphenyl	22.0		25.00		88.2	50	150				
Surr: o-Terphenyl	26.2		25.00		105	50	150				

Sample ID: **LCSD-46037** SampType: **LCSD** Units: **µg/L** Prep Date: **12/4/2024** RunNo: **96167**
Client ID: **LCSW02** Batch ID: **46037** Analysis Date: **12/5/2024** SeqNo: **2006559**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	894	250	1,250	0	71.5	42.5	123	788.5	12.5	30	
Surr: 2-Fluorobiphenyl	22.2		25.00		88.6	50	150		0		
Surr: o-Terphenyl	27.5		25.00		110	50	150		0		

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

PAHs by EPA Method 8270E SIM

Sample ID: **MB-46001**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **12/2/2024**	RunNo: **96174**
Client ID: **MBLKW**	Batch ID: **46001**		Analysis Date: **12/3/2024**	SeqNo: **2006718**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.100									
2-Methylnaphthalene	ND	0.100									
1-Methylnaphthalene	ND	0.100									
Surr: 2-Fluorobiphenyl	2.44		2.500		97.7	12.8	129				
Surr: Terphenyl-d14	2.80		2.500		112	12.7	150				

Sample ID: **LCS-46001**	SampType: **LCS**	Units: **µg/L**	Prep Date: **12/2/2024**	RunNo: **96174**
Client ID: **LCSW**	Batch ID: **46001**		Analysis Date: **12/3/2024**	SeqNo: **2006720**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.73	0.100	5.000	0	54.7	39.8	99.9				
2-Methylnaphthalene	2.69	0.100	5.000	0	53.8	31.5	108				
1-Methylnaphthalene	2.76	0.100	5.000	0	55.3	32.8	106				
Surr: 2-Fluorobiphenyl	2.50		2.500		100	45.7	127				
Surr: Terphenyl-d14	2.77		2.500		111	41.1	145				

Sample ID: **LCSD-46001**	SampType: **LCSD**	Units: **µg/L**	Prep Date: **12/2/2024**	RunNo: **96174**
Client ID: **LCSW02**	Batch ID: **46001**		Analysis Date: **12/3/2024**	SeqNo: **2006721**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	3.41	0.100	5.000	0	68.1	39.8	99.9	2.733	21.9	30	
2-Methylnaphthalene	3.36	0.100	5.000	0	67.2	31.5	108	2.692	22.0	30	
1-Methylnaphthalene	3.46	0.100	5.000	0	69.2	32.8	106	2.764	22.3	30	
Surr: 2-Fluorobiphenyl	2.64		2.500		106	45.7	127		0		
Surr: Terphenyl-d14	2.64		2.500		105	41.1	145		0		

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: **LCS-46012** SampType: **LCS** Units: **µg/L** Prep Date: **12/3/2024** RunNo: **96088**
Client ID: **LCSW** Batch ID: **46012** Analysis Date: **12/3/2024** SeqNo: **2004864**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	446	50.0	500.0	0	89.1	65	135				
Surr: Toluene-d8	24.7		25.00		98.8	65	135				
Surr: 4-Bromofluorobenzene	25.4		25.00		102	65	135				

Sample ID: **MB-46012** SampType: **MBLK** Units: **µg/L** Prep Date: **12/3/2024** RunNo: **96088**
Client ID: **MBLKW** Batch ID: **46012** Analysis Date: **12/3/2024** SeqNo: **2004853**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	50.0									
Surr: Toluene-d8	24.0		25.00		96.2	65	135				
Surr: 4-Bromofluorobenzene	23.0		25.00		91.9	65	135				

Sample ID: **2411493-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **12/3/2024** RunNo: **96088**
Client ID: **BATCH** Batch ID: **46012** Analysis Date: **12/3/2024** SeqNo: **2004855**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	500						0		30	D
Surr: Toluene-d8	239		250.0		95.8	65	135		0		D
Surr: 4-Bromofluorobenzene	234		250.0		93.7	65	135		0		D

Sample ID: **2412023-001AMS** SampType: **MS** Units: **µg/L** Prep Date: **12/3/2024** RunNo: **96088**
Client ID: **BATCH** Batch ID: **46012** Analysis Date: **12/3/2024** SeqNo: **2004861**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	511	50.0	500.0	0	102	65	135				
Surr: Toluene-d8	24.6		25.00		98.4	65	135				
Surr: 4-Bromofluorobenzene	26.4		25.00		105	65	135				

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Volatile Organic Compounds by EPA 8260D SIM

Sample ID: **LCS-46053** SampType: **LCS** Units: **µg/L** Prep Date: **12/5/2024** RunNo: **96166**
Client ID: **LCSW** Batch ID: **46053** Analysis Date: **12/5/2024** SeqNo: **2006554**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
methyl tert-butyl ether (MTBE)	4.66	0.100	5.000	0	93.2	80	120				
1,2-Dichloroethane (EDC)	4.77	0.100	5.000	0	95.4	80	120				
Benzene	4.58	0.100	5.000	0	91.5	80	120				
Toluene	4.85	0.200	5.000	0	97.1	80	120				
1,2-Dibromoethane (EDB)	5.17	0.0100	5.000	0	103	80	120				
Ethylbenzene	4.71	0.100	5.000	0	94.3	80	120				
m,p-Xylene	9.38	0.200	10.00	0	93.8	80	120				
o-Xylene	4.81	0.100	5.000	0	96.2	80	120				
Surr: Dibromofluoromethane	10.0		10.00		100	80	120				
Surr: Toluene-d8	9.95		10.00		99.5	80	120				
Surr: 1-Bromo-4-fluorobenzene	10.1		10.00		101	80	120				

Sample ID: **MB-46053** SampType: **MBLK** Units: **µg/L** Prep Date: **12/5/2024** RunNo: **96166**
Client ID: **MBLKW** Batch ID: **46053** Analysis Date: **12/5/2024** SeqNo: **2006547**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
methyl tert-butyl ether (MTBE)	ND	0.100									
1,2-Dichloroethane (EDC)	ND	0.100									
Benzene	ND	0.100									
Toluene	ND	0.200									
1,2-Dibromoethane (EDB)	ND	0.0100									
Ethylbenzene	ND	0.100									
m,p-Xylene	ND	0.200									
o-Xylene	ND	0.100									
Surr: Dibromofluoromethane	10.1		10.00		101	80	120				
Surr: Toluene-d8	10.1		10.00		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	9.74		10.00		97.4	80	120				

Work Order: 2411560
CLIENT: GeoEngineers
Project: 701/709 South Jackson

QC SUMMARY REPORT

Volatile Organic Compounds by EPA 8260D SIM

Sample ID: **2411560-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **12/5/2024** RunNo: **96166**
Client ID: **GEI-12-112624** Batch ID: **46053** Analysis Date: **12/5/2024** SeqNo: **2006550**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
methyl tert-butyl ether (MTBE)	ND	0.100						0		30	
1,2-Dichloroethane (EDC)	ND	0.100						0		30	
Benzene	ND	0.100						0		30	
Toluene	ND	0.200						0		30	
1,2-Dibromoethane (EDB)	ND	0.0100						0		30	
Ethylbenzene	ND	0.100						0		30	
m,p-Xylene	ND	0.200						0		30	
o-Xylene	ND	0.100						0		30	
Surr: Dibromofluoromethane	10.3		10.00		103	80	120		0		
Surr: Toluene-d8	9.99		10.00		99.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	9.64		10.00		96.4	80	120		0		

Sample ID: **2411560-003AMS** SampType: **MS** Units: **µg/L** Prep Date: **12/5/2024** RunNo: **96166**
Client ID: **GEI-13-112624** Batch ID: **46053** Analysis Date: **12/5/2024** SeqNo: **2006553**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
methyl tert-butyl ether (MTBE)	5.11	0.100	5.000	0	102	67.3	124				
1,2-Dichloroethane (EDC)	5.05	0.100	5.000	0	101	72.9	123				
Benzene	5.00	0.100	5.000	0	100	74.2	124				
Toluene	5.20	0.200	5.000	0	104	75.4	123				
1,2-Dibromoethane (EDB)	5.48	0.0100	5.000	0	110	72.7	126				
Ethylbenzene	4.91	0.100	5.000	0	98.3	78.6	121				
m,p-Xylene	9.72	0.200	10.00	0	97.2	74.3	123				
o-Xylene	4.94	0.100	5.000	0	98.7	74.5	122				
Surr: Dibromofluoromethane	10.4		10.00		104	80	120				
Surr: Toluene-d8	10.1		10.00		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	10.3		10.00		103	80	120				

Sample Log-In Check List

Client Name:	GEI	Work Order Number:	2411560
Logged by:	Clare Griggs	Date Received:	11/27/2024 12:13:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp ºC
Sample	6.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Alliance TECHNICAL GROUP
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 11/26/24 Page: 1 of: 1
Laboratory Project No (internal): 2411560
Project Name: 701/709 South Jackson
Special Remarks:
Client: Geoengineers
Project No: 24504-001-04
Address: 2101 4th Avenue, Suite 950
Collected by: Max Henry Nelson
City, State, Zip: Seattle, WA 98121
Location: Seattle
Telephone: 706, 240.2300
Report To (PM): Robert Trahan
Disposal: Samples will be disposed in 30 days unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client
Email(s): rtrahan@Geoengineers.com, mtcq methoz A

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624) SIM (A)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Naphthalenes (8270)	Comments
1 GEI-11-112624	11/26/24	1415	W	7	X	X	X		X				X	T/D		X		(A) - Field Filtered Poly marked on bottle
2 GEI-12-112624	↓	1645	↓	8	↓	↓	↓		↓				↓	↓		↓		
3 GEI-13-112624		1745		8														(A) EDB, EDC, MTBE
4 DUP-112624		1200		7														
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni (Pb) Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ _____ (specify)

I represent that I am authorized to enter into this Agreement with Alliance Technical Group LLC on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x [signature]	Max-Henry Nelson	11/27/24 @1100	x		
x [signature]	Thomas Hunt	11.27 @1118	x [signature]	Jack Hawthorne	11/27/24 1213