

**Underground Storage Tank  
Removal and Closure Report**

Seventh Avenue Service Site  
701 South Jackson Street  
Seattle, Washington

*for*  
**701 South Jackson Partners, LLC**  
**c/o Housing Diversity Corp**

February 20, 2024



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# **Underground Storage Tank Removal and Closure Report**

## **Seventh Avenue Service Site 701 South Jackson Street Seattle, Washington**

**File No. 24504-001-03**

**February 20, 2024**


Prepared for:

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## 1.0 INTRODUCTION

This report summarizes GeoEngineers' observations and soil sampling results associated with the discovery, removal, and permanent closure of four previously undocumented underground storage tanks (USTs), designated as UST-1 through UST-4, encountered during redevelopment of the Seventh Avenue Service Site (Site) located at 701 South Jackson Street (Property) in the Chinatown-International District neighborhood of Seattle, Washington (Figure 1). Currently, remedial actions are being completed at the Site in accordance with the Washington State Department of Ecology (Ecology) Cleanup Action Plan (Ecology 2022), Ecology-approved Contaminated Media Management Plan (CMMP; GeoEngineers 2023), and Chapter 173-340 of the Washington Administrative Code (WAC) as part of the Property redevelopment. Redevelopment plans for the Property include a new eight-story building with affordable housing and ground level commercial retail space. As part of the redevelopment, the existing buildings and structures will be demolished followed by Property-line to Property-line excavation of soils to a depth of approximately 15 to 20 feet below ground surface (bgs; Elevation 85 to 80 feet<sup>1</sup>) and subsequent construction of the new building.

To facilitate cleanup as part of project construction, 701 S Jackson Partners, LLC (South Jackson Partners) entered into Prospective Purchaser Consent Decree (PPCD) No. 22-2-15886-7 SEA with Ecology, and the Assistant Attorney General, Ecology Division (AGO), to facilitate cleanup as part of project construction. The Site is currently listed in Ecology's database of confirmed and suspected contaminated sites under Facility/Site No. 99187287 and Cleanup Site ID No. 11348.

The purpose of this report is to document the permanent removal and closure of each of the four previously unidentified USTs in accordance with WAC 173-360A-0810 and Ecology's UST Site Check/Site Assessment guidance document (Ecology 2021). The following sections provide a summary of Site conditions, historical land use and UST removal and closure activities. The approximate locations of the former USTs are shown on Figure 2 relative to the surrounding features. Specific remedial actions completed to address Site contaminants will be documented in a Cleanup Action Report following completion of the construction project.

## 2.0 BACKGROUND INFORMATION

### 2.1.1. Site/Property Description and Future Land Use

The Property is bounded by South Jackson Street to the north, 7<sup>th</sup> Avenue South to the west, a mixed-use retail and apartment building (currently vacant) to the south, and a restaurant building (House of Hong) to the east (Figure 2). The Property (currently being redeveloped) previously contained two single-story structures, including a former gasoline station building in the northwest portion and an "L"-shaped automobile repair garage along the east and south Property boundaries, and paved parking and drive areas. A former small building on the southwest corner of the Property was previously used as a storage room for "New Century Tea Gallery". These former structures have recently been demolished to facilitate Property redevelopment.

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<sup>1</sup> Elevations in this document are referenced to North American Vertical Datum 1988 (NAVD88).

As noted above, future use of the Property will include a new apartment building with affordable housing and ground level commercial retail space.

### **2.1.2. Site/Property History**

Since redevelopment following the Jackson Street regrading project in 1927, the Property has been used for automobile repair and fueling services. During redevelopment, the large “L”-shaped building was constructed along the southern and eastern portions of the Property. As early as 1932, a gasoline service station was added to the northwest portion of the Property until sales of gasoline ceased in the 1970s. The former gasoline service station operations included two gasoline USTs and an associated fuel dispenser/pump island, and vehicle service/repair. In 2010, the two gasoline USTs associated with the service station were decommissioned and removed from the Property (Global 2010). A summary of the UST decommissioning activities, including the associated soil characterization and laboratory analytical results, is presented in the Remedial Investigation/Feasibility Study Report (RI/FS; GeoEngineers 2022).

### **2.1.3. Geology and Hydrogeology**

#### **2.1.3.1. Local Geology**

Previous investigations of the Site have identified varying depths of fill material overlying pre-Vashon deposits consisting of interbedded sand, gravel, silt, and poorly sorted mixtures that are of unspecified age and origin (GeoEngineers 2022). Previous drilling and sampling locations are shown on Figure 3. The previous investigations have identified the following:

- **Fill** – Surficial fill was encountered at each exploration location. The fill is approximately 4 to 7 feet thick, and may extend to depths of up to 10 feet bgs (elevation ranging from approximately 96 to 85 feet) at some exploration locations. The fill consisted primarily of silty fine to fine sand with silt containing occasional debris (concrete, plastic, metal and brick debris).
- **Glacial Deposits** – Interbedded fine sand with silt and clayey silt is present beneath the fill deposits to a depth of approximately 12 feet bgs. Fine to medium silty sand and sand with trace silt underlies the interbedded silt and clayey silt deposits to an approximate depth of 20 feet bgs (approximately Elevation 77 feet). The glacial deposits from approximately 20 feet to the maximum depth explored (76.5 feet bgs; Elevation 22 feet) consist of fine sand with varying amounts of silt and clayey silt.

#### **2.1.3.2. Local Hydrogeology**

Moist and/or wet soil interpreted as being the result of localized shallow perched groundwater was observed in 5 of the 25 explorations completed at the Site at depths ranging from approximately 12 to 20 feet bgs (approximately Elevation 90 to 75 feet) during previous investigations (GeoEngineers 2022). The previous investigation results indicate that the shallow perched groundwater is discontinuous and not widespread.

Deep regional groundwater is present beneath the Site at a depth ranging from approximately 61 to 69 feet bgs (approximately Elevation 31 to 34 feet), based on depths to groundwater measured in one deep temporary monitoring well (GEI-1) in the central portion of the Property (Figure 3), and two deep monitoring wells (GEI-11 and GEI-12) within the west adjacent 7<sup>th</sup> Avenue right-of-way (ROW). Based on the location of the Property to surrounding surface water bodies (i.e., Puget Sound) and local topography, the inferred groundwater flow direction is to the west-northwest.

#### **2.1.4. Environmental Conditions**

Based on the results of the previous environmental investigations, soil in the central and western portions of the Property contains gasoline-range total petroleum hydrocarbons, benzene, toluene, ethylbenzene, and xylenes (BTEX), and naphthalene at concentrations greater than the applicable Model Toxics Cleanup Act (MTCA) cleanup levels (CULs) between approximately 5 and 20 feet bgs (approximately Elevation 95 to 80 feet). Additionally, localized areas of the shallow fill soil imported to the Property during construction for the former structures contain lead (GEI-6) and carcinogenic polycyclic aromatic hydrocarbons (cPAHs; GEI-4) at concentrations greater than the MTCA CULs at a depth of approximately 2.5 feet bgs. Other contaminants of potential concern including diesel- and heavy oil-range total petroleum hydrocarbons, volatile organic compounds (VOCs; not including BTEX), halogenated VOCs (HVOCs), metals (not including lead) and polychlorinated biphenyls (PCBs) either were not detected at concentrations greater than the laboratory reporting limits or were detected at concentrations less than the corresponding MTCA CULs.

Analytical results for groundwater samples collected from the deep regional groundwater unit (GEI-1, GEI-11 and GEI-12) indicate that contaminants either were not detected at concentrations greater than the laboratory reporting limits or were detected at concentrations less than the MTCA CULs.

The previous soil and groundwater investigation results are presented in the RI/FS Report and are summarized on Figures 4 through 6.

#### **2.1.5. Regulatory Framework**

The Site is listed by Ecology with Facility/Site No. 99187287 and Cleanup Site ID No. 11348 and has been identified as a Leaking Underground Storage Tank (LUST) site (LUST Release No. 592055) for benzene, naphthalene, and gasoline-range total petroleum hydrocarbons confirmed in soil at concentrations greater than the MTCA CULs. As part of the planned redevelopment, South Jackson Partners entered a PPCD No. 22-2-15886-7 SEA with Ecology, and the AGO, to facilitate cleanup as part of Property redevelopment.

Prior to initiating the PPCD process, the Site was enrolled in Ecology's Voluntary Cleanup Program (VCP) to receive Ecology's technical advice and assistance on the independent RI/FS. The Site entered into the Expedited VCP on April 23, 2021 and was assigned a VCP No. XS0009. Upon initiating the PPCD process, the VCP agreement governing No. XS0009 was terminated.

### **3.0 PURPOSE AND SCOPE**

The activities summarized in this report were performed during Property redevelopment to document the UST removal in general accordance with Ecology's Guidance for Site Checks and Site Assessments for Underground Storage Tanks. GeoEngineers' scope of services included the following:

1. Obtaining samples to characterize the contents of each UST. Samples were submitted to a subcontracted laboratory (Fremont Analytical in Seattle, Washington [Fremont]) for total petroleum hydrocarbon identification (HCID) analysis.
2. Observed and documented the removal of UST-1 through UST-4 and performed a Site Check/Site Assessment for each UST during removal and permanent closure activities as required by the Washington UST regulations under WAC 173-360A.



3. Performed field screening of soil encountered during the UST removal excavation activities for evidence of petroleum hydrocarbons and VOCs. Field screening consisted of visual, water sheen, and headspace vapor methods using a photoionization detector (PID).
4. Obtained soil samples adjacent to and beneath each UST for field screening and chemical analysis in general accordance with the WAC 173-340 and related guidance documents. Soil samples were submitted to Fremont Analytical for a combination or the following chemical analysis in accordance with MTCA Table 830-1 based on the initial HCID analysis and field observations:
  - a. Total petroleum hydrocarbons as gasoline-range organics (GRO), diesel-range organics (DRO), and heavy oil-range organics (ORO) by NWTPH-G and NWTPH-Dx methods.
  - b. VOCs including BTEX, methyl tert-butyl ether (MTBE), ethylene dibromide (EDB) and ethylene dichloride (EDC) by United States Environmental Protection Agency (EPA) 8260/8021 methods.
  - c. PCBs by EPA Method 8082.
  - d. Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270/SIM.
  - e. Metals (lead) by EPA 6000/7000 method series.
5. Compared the soil sample analytical results to the MTCA CULs for unrestricted land use.
6. Prepared this summary report documenting the UST removal and closure.

## **4.0 UNDERGROUND STORAGE TANK REMOVAL AND CLOSURE**

STS Construction (STS) arranged for the removal and permanent closure of each UST from the Property under oversight by a certified Marine Chemist and the Seattle Fire Department. During removal and closure of each tank, the liquid contents were removed (as necessary), the tank was then inerted, and removed from the ground for appropriate off-Property disposal. The UST removal permits, Marine Chemist certificate, and other documentation related to the UST removal and closure provided by STS are presented in Appendix A.

A representative of GeoEngineers was present to observe the UST removal and document the condition of each tank. A copy of the Site Check/Site Assessment Checklist forms are presented in Appendix B. Note that in accordance with WAC 173-360A-110(1)(a), UST-1 is exempt from the requirements of WAC 173-360A based on the volume of the tank (i.e., less than 1,100 gallons) and use of the tank (i.e., heating oil). Although exempt, GeoEngineers was on Site to collect samples for chemical analysis to 1) verify the contents of this tank, and 2) evaluate whether a release had occurred to the surrounding soil. The characterization of the UST contents, condition of the tanks during removal, and the soil analytical results for samples collected at the UST removal excavation limits are summarized in the following sections (Section 4.1 through 4.4).

### **4.1. Underground Storage Tank-1**

#### **4.1.1. Tank and Soil Condition**

On June 29, 2023, UST-1 was encountered in the southern portion of the Property adjacent to a former boiler located within the basement of the former service (“L” shaped) building (Figure 7). The UST was a single-wall, steel, cylindrical tank measuring approximately 9 feet long by 4 feet in diameter (approximately

800 gallons) and was oriented north-south. The top of the UST was located at an approximate Elevation of 87 feet (approximately 11 feet bgs). Product lines were observed near the UST extending to the east toward the former boiler. At the time of removal, the UST appeared to be weathered with minor corrosion holes along its underside. When encountered the tank contained approximately 150 gallons of a black, semi-viscous liquid. Mar-Vac removed the tank contents on July 6, 2023.

Soil observed on the sidewalls and base of the UST removal excavation consisted of moist, dark brown and gray, fine to coarse sand with silt and occasional fine gravel. Field screening of the soil at the excavation limits yielded a slight to heavy sheen and headspace vapor measurements ranging from 89 to 947 parts per million<sup>2</sup> (ppm; Table 1). Field screening methods are described in Appendix C. Groundwater was not observed in the excavation at the time of the UST removal.

#### 4.1.2. Sampling and Analysis

One product sample (UST-230629) was collected to characterize the contents of the tank and three discrete soil samples (UST-N-86, UST-E-86 and UST-B-83) were collected from the sidewalls and base of the UST removal excavation to evaluate soil conditions. Sidewall soil samples (UST-N-86 and UST-E-86) were collected from the northern and eastern limits of the UST removal excavation. Sample locations were selected based on field screening results and the location of the observed product line extending to the former boiler (i.e., east of the UST) in this vicinity. Sidewall samples were collected at an approximate Elevation of 86 feet (approximately 12 feet bgs). The base sample was collected from the central portion of the UST removal excavation directly beneath the former tank at an approximate Elevation of 83 feet (approximately 15 feet bgs). Soil sample locations relative to the removal excavation for UST-1 are shown on Figure 7.

The product sample (UST-230629) submitted for NWTPH-HCID analysis and the location of the tank relative to the former boiler indicated that this UST-1 was used as a heating oil tank. In accordance with MTCA Table 830-1, sidewall and base samples were submitted for NWTPH-Dx, BTEX and PAH analysis to evaluate soil conditions adjacent to the tank. Chemical analytical results are presented in Table 1 and summarized below:

- ORO was detected in the northern sidewall and base soil at a concentration greater than the MTCA CUL. ORO was not detected greater than the laboratory report limit in the eastern sidewall sample.
- DRO, BTEX and PAHs (carcinogenic PAHs [cPAHs] and naphthalene) either were not detected in any of the excavation soil samples at a concentration greater than the laboratory reporting limit or were detected at a concentration less than the MTCA CULs.

Laboratory analytical reports and the data quality review are presented in Appendix D.

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<sup>2</sup> Note that the former use of the Property was a gasoline service station and that remedial excavation activities are being completed in conjunction with redevelopment to address previously identified contamination (predominantly GRO). Given the nature of the historical Property use and ongoing cleanup activities, soil sample PID measurements are generally elevated throughout the Site and are not necessarily an indication of release from the UST itself.

## 4.2. Underground Storage Tank-2

### 4.2.1. Tank and Soil Condition

UST-2 was encountered in the northwestern portion of the adjacent former service station (Figure 8). The UST was a single-wall, steel, cylindrical tank measuring approximately 14 feet long by 7 feet in diameter (approximately 4,000 gallons) and was oriented east-west. The top of the UST was located at an approximate Elevation of 95 feet (approximately 6 feet below the local ground surface [bgs]). At the time of removal, the UST had no obvious signs of weathering or corrosion. When encountered, the tank contained approximately 100 to 150 gallons of a clear liquid. Mar-Vac removed the tank contents on August 8, 2023.

Soil observed on the sidewalls and base of the UST removal excavation consisted of moist, dark brown and gray, fine to coarse sand with silt and occasional fine gravel. Field screening of the soil at the excavation limits yielded a medium to heavy sheen and headspace vapor measurements of 15,000 ppm (Table 1; see footnote above regarding elevated headspace vapor measurements at the Site). Field screening methods are described in Appendix C. Groundwater was not observed in the excavation at the time of the UST removal.

### 4.2.2. Sampling and Analysis

One product sample (UST-2-230802) was collected to characterize the contents of the tank and three discrete soil samples (UST2-NSW-93, UST2-WSW-93 and UST2-B-89) were collected from the sidewalls and base of the UST removal excavation to evaluate soil conditions. Sidewall soil samples (UST2-NSW-93 and UST2-WSW-93) were collected from the northern and western limits of the UST removal excavation. Sample locations were selected based on field screening results. Sidewalls samples were collected at an approximate Elevation of 93 feet (approximately 8 feet bgs). The base sample was collected from the central portion of the UST removal excavation directly beneath the former tank location at an approximate Elevation of 89 feet (approximately 12 feet bgs). Soil sample locations relative to the removal excavation for UST-2 are shown on Figure 8.

The product sample (UST-2-230802) was submitted for NWTPH-HCID analysis which identified gasoline- and diesel-range petroleum hydrocarbons. Although the tank likely was used for gasoline based our visual observations, in accordance with MTCA Table 830-1, sidewall and base samples were submitted for NWTPH-G, NWTPH-Dx, BTEX, PAH and lead analysis to evaluate soil conditions adjacent to the tank based on the presence of both gasoline- and diesel-range petroleum hydrocarbons. Chemical analytical results are presented in Table 1 and summarized below:

- GRO was detected in the northern sidewall and base soil samples at a concentration greater than the MTCA CUL. GRO was not detected at a concentration greater than the laboratory reporting limit in the western sidewall sample.
- DRO, ORO, BTEX, lead and PAHs either were not detected in any of the excavation soil samples at a concentration greater than the laboratory reporting limit or were detected at a concentration less than the MTCA CULs.

Laboratory analytical reports and data quality review are presented in Appendix D.

### 4.3. Underground Storage Tank-3

#### 4.3.1. Tank and Soil Condition

UST-3 was encountered in the western portion of the Property (Figure 9). The UST was a single-wall, steel, cylindrical tank measuring approximately 12 feet long by 4 feet in diameter (approximately 1,100-gallons) and was oriented east-west. The top of the UST was located at an approximate Elevation of 94 feet (approximately 7 feet below the local ground surface [bgs]). At the time of removal, the UST appeared to be corroded with holes at the seams of the butt joints. When encountered, the tank contained approximately 50 to 60 gallons of liquid. Mar-Vac removed the tank contents on August 8, 2023.

Soil observed on the sidewalls and base of the UST removal excavation consisted of moist, dark brown and gray, fine to coarse sand with silt and occasional fine gravel. Field screening of the soil at the excavation limits yielded no to heavy sheen and headspace vapor measurements ranging from 5,767 to 15,000 ppm (Table 1; see footnote above regarding elevated headspace vapor measurements at the Site). Field screening methods are described in Appendix C. Groundwater was not observed in the excavation at the time of the UST removal.

#### 4.3.2. Sampling and Analysis

One product sample (UST-3-230804) was collected to characterize the contents of the tank and three discrete soil samples (UST3-NSW-93, UST3-WSW-93 and UST3-B-90) were collected from the sidewalls and base the UST removal excavation to evaluate soil conditions. Sidewall soil samples (UST3-NSW-93 and UST3-WSW-93) were collected from the northern and western limits of the UST removal excavation. Sample locations were selected based on field screening results. Sidewalls soil samples were collected at an approximate Elevation of 93 feet (approximately 8 feet bgs). The base sample was collected from the central portion of the UST removal excavation directly beneath the former tank location at an approximate Elevation of 90 feet (approximately 11 feet bgs). Sample locations relative to the removal excavation for UST-3 are shown on Figure 9.

The product sample (UST-3-230804) was submitted for NWTPH-HCID analysis which identified gasoline-, diesel- and heavy oil-range petroleum hydrocarbons. In accordance with MTCA Table 830-1, sidewall and base samples were submitted for NWTPH-G, NWTPH-Dx, VOCs including BTEX, EDB, EDC and MTBE, PAHs, lead and PCB analysis to evaluate soil conditions adjacent to the tanks. Chemical analytical results are presented in Table 1 and summarized below:

- GRO, ORO and naphthalenes were detected in soil at the base of the UST removal excavation at concentrations greater than the MTCA CULs. GRO, ORO and naphthalenes were not detected at a concentration greater than the laboratory report limit in the other soil samples analyzed.
- DRO, BTEX, EDB, EDC, MTBE, PAHs and PCBs either were not detected in any of the excavation soil samples at a concentration greater than the laboratory reporting limit or were detected at a concentration less than the MTCA CULs.

Laboratory analytical reports and data quality review are presented in Appendix D.

## 4.4. Underground Storage Tank-4

### 4.4.1. Tank and Soil Condition

UST-4 was encountered in the northern portion of the Property (Figure 10). The UST was a single-wall, steel, cylindrical tank measuring approximately 8 feet long by 5 feet in diameter (approximately 1,100 gallons) and was oriented east-west. The top of the UST was located at an approximate Elevation of 95 feet (approximately 6 feet below the local ground surface [bgs]). At the time of removal on August 9, 2023, the UST had no obvious signs of weathering or corrosion. No liquids were observed inside the tank.

Soil observed on the sidewalls and base of the UST removal excavation consisted of moist, dark brown and gray, fine to coarse sand with silt and occasional fine gravel. Field screening of the soil at the excavation limits yielded slight to heavy sheen and headspace vapor measurements of 15,000 ppm (Table 1; see footnote above regarding elevated headspace vapor measurements at the Site). Field screening methods are described in Appendix C. Groundwater was not observed in the excavation at the time of the UST removal.

### 4.4.2. Sampling and Analysis

One product sample (UST-4-230808) was collected to characterize the contents of the tank and three discrete soil samples (UST4-NSW-94, UST4-SSW-93 and UST4-B-90) were collected from the sidewalls and base of the UST removal excavation to evaluate soil conditions. Sidewall soil samples (UST4-NSW-94 and UST4-SSW-93) were collected from the northern and southern limits of the UST removal excavation. Sample locations were selected based on field screening results. Sidewalls samples were collected at an approximate Elevation of 93 feet (approximately 8 feet bgs). The base sample was collected from the central portion of the UST removal excavation directly beneath the former tank location at an approximate Elevation of 90 feet (approximately 11 feet bgs). Sample locations relative to the removal excavation for UST-4 are shown on Figure 10.

The product sample (UST-4-230808) was submitted for NWTPH-HCID analysis, however, petroleum hydrocarbons were not detected at concentrations greater than the laboratory reporting limits. Due to the unknown use of this tank and inconclusive NWTPH-HCID results, sidewall and base samples were submitted for NWTPH-G, NWTPH-Dx, BTEX, PAH, lead and PCB analysis to evaluate soil conditions adjacent to the tank in accordance with MTCA Table 830-1. Chemical analytical results are presented in Table 1 and summarized below:

- GRO was detected in the southern sidewall soil at a concentration greater than the MTCA CUL. GRO was not detected greater than the laboratory report limit in the other samples analyzed.
- DRO, ORO, BTEX, EDB, EDC, MTBE, lead, PAHs and PCBs either were not detected at concentrations greater than the laboratory reporting limits or were detected at concentrations less than the MTCA CULs in the base and sidewall soil samples.

Laboratory analytical reports and data quality review are presented in Appendix D.

## 5.0 SUMMARY

Four previously undocumented single-wall, steel USTs (UST-1 through UST-4) were identified during redevelopment for the 701 South Jackson Street Property. In accordance with Washington UST regulations (WAC 173-360A), each of the USTs was decommissioned and removed from the Property. During UST removal activities, a Site Check/Site Assessment was performed for each tank to evaluate the contents and soil conditions at the limits of the tank removal excavations. Chemical analytical testing of the soil samples collected from the limits of the UST removal excavations identified one or more contaminants including GRO, ORO and/or naphthalenes at concentrations greater than the MTCA CULs adjacent to/beneath each of the USTs removed from the Property.

In accordance with the CAP, South Jackson Partners is conducting remedial activities during redevelopment of the Property to address the previously identified petroleum-related contamination. These remedial activities include the locations of the previously unidentified USTs and will address soil containing contaminants at concentrations greater than the MTCA CULs identified as part of the Site Check/Site Assessments. A Cleanup Action Report summarizing the remedial excavation and confirmation sample results verifying the removal of Site contamination will be prepared following the completion of the cleanup action. This UST Removal and Closure Report, including the attached UST removal and site check documentation in Appendix B, is being provided to meet Ecology's requirements for UST closure of the previously undocumented USTs encountered at the Site.

## 6.0 LIMITATIONS

We have prepared this report pertaining to the Seventh Avenue Service Site located at 701 South Jackson Street in Seattle, Washington, for the exclusive use of South Jackson Partners LLC and their authorized agents and regulatory agencies. Our interpretations of subsurface conditions are based on GeoEngineers' field observations and chemical analytical data for soil samples from specific sampling locations at the site. It is possible that petroleum hydrocarbons exist beneath portions of the site that were not explored, sampled or analyzed.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with our agreement with South Jackson Partners LLC dated September 1, 2022, and generally accepted environmental science and geotechnical engineering practices in this area at the time this plan was prepared. No warranty or other conditions, express or implied, should be understood.

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

Please refer to Appendix E, titled "Report Limitations and Guidelines for Use," for additional information pertaining to use of this plan.

We appreciate the opportunity to be of service on this project. Please call if you have questions regarding our report.

## 7.0 REFERENCES

GeoEngineers Inc. (GeoEngineers) 2023. Contaminated Media Management Plan, 701 South Jackson Property. Prepared for South Jackson Partners LLC. File No. 24504-001-01. May 16, 2023.

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Washington State Department of Ecology (Ecology) 2021. Site Assessment Guidance for Underground Storage Tank Systems. Publication No. 21-09-050 prepared by the Washington State Department of Ecology. January 2021.

**Table 1**  
**Summary of Underground Storage Tank Site Check/Site Assessment Chemical Analytical Data**

701 South Jackson Street  
 Seattle, Washington

Sample Location <sup>1</sup>	MTCA Cleanup Level <sup>2</sup>	UST-01 (Heating Oil)				UST-02 (Gasoline/Diesel)			
		UST-230629	UST-N-86	UST-E-86	UST-B-83	230802	93	93	UST2-B-89
Sample Identification		GEI	GEI	GEI	GEI	GEI	GEI	GEI	
Sampled By		06/29/23	07/06/23	07/06/23	07/06/23	08/02/23	08/08/23	08/08/23	
Sample Date		n/a	12.0	12.0	15.0	n/a	8.0	8.0	
Sample Depth (feet bgs)									
<b>Field Screening</b>									
Sheen	NE	n/a	HS	MS	MS	n/a	HS	MS	HS
Headspace Vapors (PPM)	NE	n/a	947	20.1	230	n/a	15,000	15,000	15,000
<b>Petroleum Hydrocarbons by NWPTH-HCID</b>									
Gasoline	n/a	ND	--	--	--	<b>Detect</b>	--	--	--
Mineral Spirits	n/a	ND	--	--	--	ND	--	--	--
Kerosene	n/a	ND	--	--	--	ND	--	--	--
Diesel	n/a	<b>Detect</b>	--	--	--	<b>Detect</b>	--	--	--
Heavy Oil	n/a	ND	--	--	--	ND	--	--	--
Mineral Oil	n/a	ND	--	--	--	ND	--	--	--
<b>Petroleum Hydrocarbons by NWPTH-G/NWTPH-Dx (mg/kg)</b>									
Gasoline-Range	30	--	--	--	--	--	<b>55.9</b>	5.72 U	<b>500</b>
Diesel-Range	2,000	--	<b>94.7</b>	62.6 U	50.2 U	--	56.8 U	52.4 U	<b>265</b>
Heavy Oil-Range		--	<b>6,910</b>	125 U	<b>2,900</b>	--	114 U	105 U	105 U
Total Diesel and Heavy Oil-Range	2,000	--	<b>7,004.7</b>	125 U	<b>2,900</b>	--	114 U	105 U	<b>265</b>
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260 (mg/kg)</b>									
Benzene	0.03	--	0.0173 U	0.0196 U	0.0200 U	--	0.0242 U	0.02 U	0.0195 U
Toluene	7	--	0.0297 U	0.0336 U	0.0343 U	--	0.0414 U	0.0343 U	0.0334 U
Ethylbenzene	6	--	0.0247 U	0.0280 U	0.0288 U	--	0.0345 U	0.0286 U	<b>0.0607</b>
Total Xylenes	9	--	0.0494 U	0.0560 U	0.0672 U	--	<b>0.109</b>	0.0572 U	<b>0.0246</b>
1,2 Dibromoethane (EDB)	0.005	--	--	--	--	--	--	--	--
1,2 Dichloroethane (EDC)	11	--	--	--	--	--	--	--	--
Methyl tertiary-butyl ether (MTBE)	0.1	--	--	--	--	--	--	--	--
<b>Total Metals by EPA 6000 /7000 Series (mg/kg)</b>									
Lead	250	--	--	--	--	--	<b>5.63</b>	<b>4.9</b>	<b>10.9</b>
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>									
1-Methylnaphthalene	34	--	0.023 U	0.023 U	0.0262	--	<b>0.0256</b>	0.0187 U	0.0204 U
2-Methylnaphthalene	320	--	0.023 U	0.023 U	0.0384	--	<b>0.0482</b>	0.0187 U	0.0204 U
Acenaphthene	4,800	--	--	--	--	--	0.0222 U	0.0187 U	0.0204 U
Acenaphthylene	NE	--	--	--	--	--	0.0222 U	0.0187 U	0.0204 U
Anthracene	24,000	--	--	--	--	--	0.0222 U	0.0187 U	0.0204 U
Benzo[a]anthracene	NE	--	0.023 U	0.0255 U	0.0202 U	--	0.0222 U	0.0187 U	0.0204 U
Benzo(a)pyrene	0.1	--	0.0244 U	0.0382 U	0.0303 U	--	0.0333 U	0.0280 U	0.0306 U
Benzo(b)fluoranthene	NE	--	0.0287 U	0.0319 U	0.0252 U	--	0.0277 U	0.0234 U	0.0255 U
Benzo(g,h,i)perylene	NE	--	--	--	--	--	0.0555 U	0.0467 U	0.0510 U
Benzo(k)fluoranthene	NE	--	0.0287 U	0.0319 U	0.0252 U	--	0.0277 U	0.0234 U	0.0255 U
Chrysene	NE	--	0.023 U	0.0255 U	0.0202 U	--	0.0222 U	0.0187 U	0.0204 U
Dibenzo(a,h)anthracene	NE	--	0.0574 U	0.0637 U	0.0504 U	--	0.0555 U	0.0467 U	0.0510 U
Fluoranthene	3,200	--	--	--	--	--	0.0222 U	0.0187 U	0.0204 U
Fluorene	3,200	--	--	--	--	--	0.0222 U	0.0187 U	0.0204 U
Indeno(1,2,3-cd)pyrene	NE	--	0.0459 U	0.0510 U	0.0403 U	--	0.0444 U	0.0374 U	0.0408 U
Naphthalene (total) <sup>4</sup>	5	--	0.023 U	0.0255 U	<b>0.0646</b>	--	<b>0.1087</b>	0.0187 U	0.0204 U
Phenanthrene	NE	--	--	--	--	--	0.0222 U	0.0187 U	0.0204 U
Pyrene	2,400	--	--	--	--	--	0.0444 U	0.0374 U	0.0408 U
cPAHs TEQ <sup>5</sup>	0.1	--	0.021 U	0.029 U	0.023 U	--	0.0254 U	0.0214 U	0.0233 U
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>									
Total PCB Aroclors	1	--	--	--	--	--	--	--	--

**Notes:**

<sup>1</sup> Approximate sample locations shown on Figures 4 through 7.

<sup>2</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.

<sup>3</sup> Refer to Appendix B for a full list of compounds analyzed and their results.

<sup>4</sup> Total naphthalenes include the sum 1-methylnaphthalene, 2-methylnaphthalenes and naphthalene.

<sup>5</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface

mg/kg = milligram per kilogram

n/a = not applicable

NE = not established

"-" = not tested

ND = not detected greater than the laboratory reporting limit

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 soil cleanup level.



**Table 1**  
**Summary of Soil Field Screening and Chemical Analytical Data**

701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	MTCA Cleanup Levels <sup>2</sup>	UST-03 (Waste Oil)				UST-04 (Waste Oil)			
		230804	93	93	UST3-B-90	230808	93	93	UST4-B-90
Sample Identification		GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI
Sampled By		08/04/23	08/08/23	08/08/23	08/08/23	08/08/23	08/09/23	08/09/23	08/09/23
Sample Date		n/a	8.0	8.0	11.0	n/a	8.0	8.0	11.0
Sample Depth (feet bgs)									
<b>Field Screening</b>									
Sheen	NE	n/a	HS	NS	HS	n/a	SS	MS	HS
Headspace Vapors (PPM)	NE	n/a	15,000	5,767	15,000	n/a	15,000	15,000	15,000
<b>Petroleum Hydrocarbons by NWPTH-HCID</b>									
Gasoline	n/a	<b>Detect</b>	--	--	--	ND	--	--	--
Mineral Spirits	n/a	ND	--	--	--	ND	--	--	--
Kerosene	n/a	ND	--	--	--	ND	--	--	--
Diesel	n/a	<b>Detect</b>	--	--	--	ND	--	--	--
Heavy Oil	n/a	<b>Detect</b>	--	--	--	ND	--	--	--
Mineral Oil	n/a	ND	--	--	--	ND	--	--	--
<b>Petroleum Hydrocarbons by NWPTH-G/NWPTH-Dx (mg/kg)</b>									
Gasoline-Range	30	--	5.98 U	5.09 U	<b>1,970</b>	--	5.16 U	<b>96.9</b>	5.72 U
Diesel-Range	2,000	--	63.6 U	50.5 U	<b>985</b>	--	55.2 U	<b>74.3</b>	51.7 U
Heavy Oil-Range		--	127 U	101 U	<b>5,480</b>	--	110 U	102 U	103 U
Total Diesel and Heavy Oil-Range	2,000	--	127 U	101 U	<b>6,465</b>	--	110 U	<b>74.3</b>	103 U
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260 (mg/kg)</b>									
Benzene	0.03	--	0.0209 U	0.0178 U	0.0194 U	--	0.0181 U	0.019 U	0.02 U
Toluene	7	--	0.0359 U	0.0306 U	0.0333 U	--	0.031 U	0.0325 U	0.0343 U
Ethylbenzene	6	--	<b>0.0414</b>	0.0255 U	<b>0.491</b>	--	0.0258 U	0.0271 U	0.0286 U
Total Xylenes	9	--	<b>0.152</b>	0.0509 U	<b>1.7678</b>	--	.0516 U	.0542 U	0.0572 U
1,2 Dibromoethane (EDB)	0.005	--	0.0120 U	0.0102 U	0.0111 U	--	0.0103 U	0.0108 U	0.0114 U
1,2 Dichloroethane (EDC)	11	--	0.0239 U	0.0204 U	0.0222 U	--	0.0206 U	0.0217 U	0.0229 U
Methyl tertiary-butyl ether (MTBE)	0.1	--	0.0239 U	0.0204 U	0.0222 U	--	0.0206 U	0.0217 U	0.0229 U
<b>Total Metals by EPA 6000 /7000 Series (mg/kg)</b>									
Lead	250	--	<b>5.53</b>	<b>1.78</b>	<b>3.21</b>	--	<b>7.96</b>	<b>2.85</b>	<b>2.7</b>
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>									
1-Methylnaphthalene	34	--	0.0243 U	0.021 U	<b>2.72</b>	--	0.0241 U	<b>0.206</b>	0.0205 U
2-Methylnaphthalene	320	--	0.0243 U	0.021 U	<b>4.39</b>	--	0.0241 U	<b>0.291</b>	0.0205 U
Acenaphthene	4,800	--	0.0243 U	0.021 U	<b>0.0618</b>	--	0.0241 U	0.0222 U	0.0205 U
Acenaphthylene	NE	--	0.0243 U	0.021 U	0.0216 U	--	0.0241 U	0.0222 U	0.0205 U
Anthracene	24,000	--	0.0243 U	0.021 U	<b>0.0697</b>	--	0.0241 U	0.0222 U	0.0205 U
Benzo[a]anthracene	NE	--	0.0243 U	0.021 U	<b>0.26</b>	--	0.0241 U	0.0222 U	0.0205 U
Benzo(a)pyrene	0.1	--	0.0243 U	0.0315 U	0.0324 U	--	0.0361 U	0.0333 U	0.0308 U
Benzo(b)fluoranthene	NE	--	0.0243 U	0.0263 U	0.027 U	--	0.0301 U	0.0278 U	0.0257 U
Benzo(g,h,i)perylene	NE	--	0.0243 U	0.0526 U	<b>0.108</b>	--	0.0602 U	0.0555 U	0.0513 U
Benzo(k)fluoranthene	NE	--	0.0243 U	0.0263 U	0.027 U	--	0.0301 U	0.0278 U	0.0257 U
Chrysene	NE	--	0.0243 U	0.021 U	<b>0.132</b>	--	0.0241 U	0.0222 U	0.0205 U
Dibenzo(a,h)anthracene	NE	--	0.0243 U	0.0526 U	0.054 U	--	0.0602 U	0.0555 U	0.0513 U
Fluoranthene	3,200	--	0.0243 U	0.021 U	<b>0.275</b>	--	0.0241 U	0.0222 U	0.0205 U
Fluorene	3,200	--	0.0243 U	0.021 U	<b>0.0934</b>	--	0.0241 U	0.0222 U	0.0205 U
Indeno(1,2,3-cd)pyrene	NE	--	0.0243 U	0.0421 U	0.0432 U	--	0.0482 U	0.0444 U	0.0411 U
Naphthalene (total) <sup>4</sup>	5	--	0.0243 U	0.021 U	<b>7.11</b>	--	0.0241 U	<b>0.497</b>	0.0205 U
Phenanthrene	NE	--	0.0243 U	0.021 U	<b>0.318</b>	--	0.0241 U	0.0222 U	0.0205 U
Pyrene	2,400	--	0.0243 U	0.0421 U	<b>0.362</b>	--	0.0482 U	0.0444 U	0.0411 U
cPAHs TEQ <sup>5</sup>	0.1	--	0.0183 U	0.024 U	0.0617 U	--	0.0275 U	0.0254 U	0.0235 U
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>									
Total PCB Aroclors	1	--	0.0252 U	0.0212 U	0.0221 U	--	0.0238 U	0.0221 U	0.0215 U

**Notes:**

<sup>1</sup> Approximate sample locations shown on Figures 4 through 7.

<sup>2</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.

<sup>3</sup> Refer to Appendix B for a full list of compounds analyzed and their results.

<sup>4</sup> Total naphthalenes include the sum 1-methylnaphthalene, 2-methylnaphthalenes and naphthalene.

<sup>5</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface

mg/kg = milligram per kilogram

n/a = not applicable

NE = not established

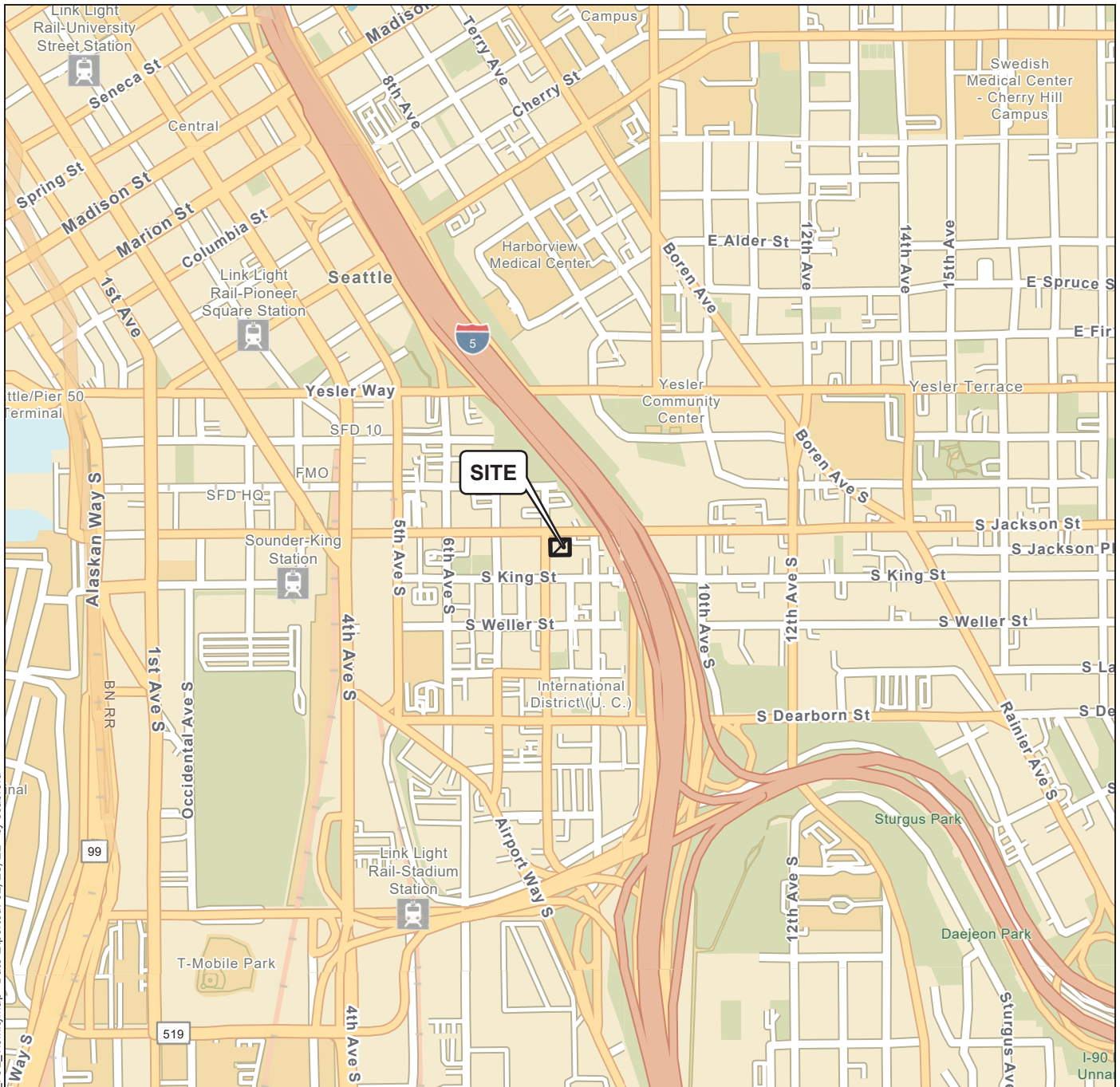
"-" = not tested

ND = not detected greater than the laboratory reporting limit

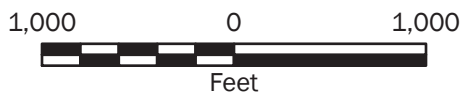
U = Analyte not detected above the reported sample quantization limit

**Bold** indicates analyte was detected.

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



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**Notes:**

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Data Source: ESRI  
 Projection: NAD 1983 UTM Zone 10N

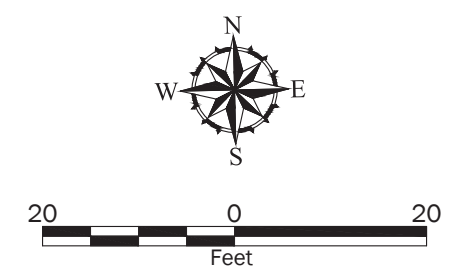
<b>Vicinity Map</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 1</b>



- Legend**
- FB-3 Hollow Stem Auger Boring by Farallon Consulting, 2019
  - FB-4 Direct Push Boring by Farallon Consulting, 2019
  - FB-5 Direct Push Boring by Farallon Consulting, 2019 Completed at 25 degrees to horizontal
  - B-1-11 Hollow Stem Auger Boring by Landau Associates, 2011
  - B-1 Hollow Stem Auger Boring by GEO Group Northwest, 2006
  - H-1 Hollow Stem Auger Boring by GEO Group Northwest, 1992
  - GEI-1 Hollow Stem Auger Boring by GeoEngineers, 2021/2022
  - GEI-4 Direct Push Boring by GeoEngineers, 2021/2022
  - SSV-1 Soil Vapor Boring by GeoEngineers, 2021

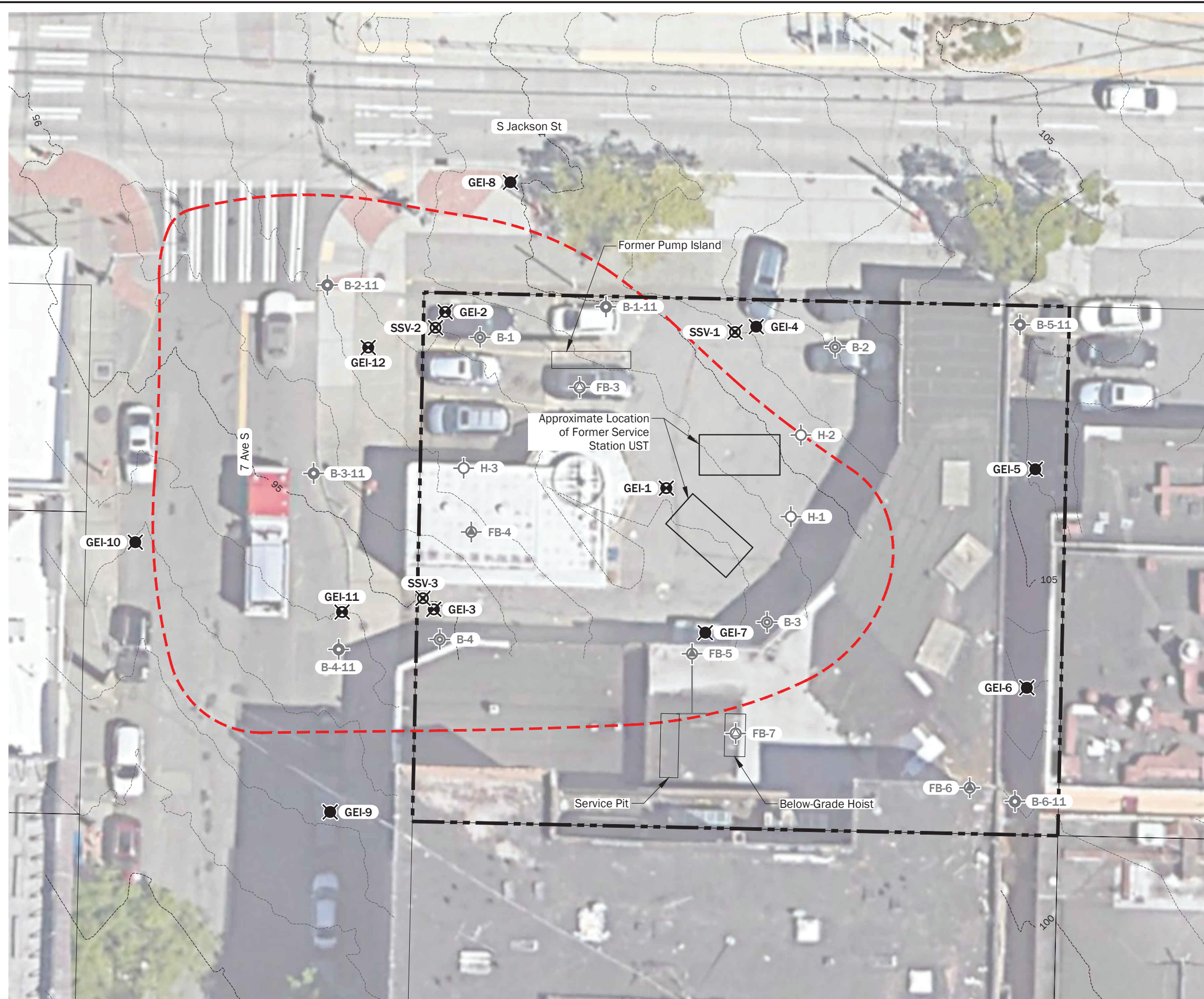
- Notes:**
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Data Source: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.  
 Projection: NAD83 Washington State Planes, North Zone, US Foot



<b>Environmental Investigation Sampling Locations</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 2</b>

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**Legend**

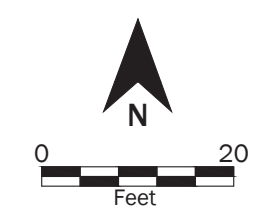
- FB-3 Hollow Stem Auger Boring by Farallon Consulting, 2019
- FB-4 Direct Push Boring by Farallon Consulting, 2019
- FB-5 Direct Push Boring by Farallon Consulting, 2019 Completed at 25 degrees to horizontal
- B-1-11 Hollow Stem Auger Boring by Landau Associates, 2011
- B-1 Hollow Stem Auger Boring by GEO Group Northwest, 2006
- H-1 Hollow Stem Auger Boring by GEO Group Northwest, 1992
- GEI-1 Hollow Stem Auger Boring by GeoEngineers, 2021/2022
- GEI-4 Direct Push Boring by GeoEngineers, 2021/2022
- SSV-1 Soil Vapor Boring by GeoEngineers, 2021
- Estimated Lateral Extent of Soil with Contaminant Concentrations Greater Than the MTCA Method A/B Cleanup Levels.

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

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<b>Environmental Investigation Sampling Locations</b>	
701 South Jackson Street Seattle, Washington	
	Figure 3



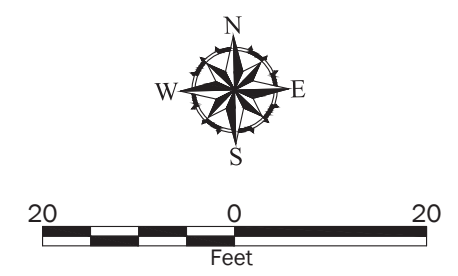
**Legend**

- FB-4 Investigation Sampling Location
- FB-5 Investigation sampling location completed at 25 degrees to horizontal
- One or More Contaminants Detected at a Concentration Greater Than the MTCA CUL
- One or More Contaminants Detected at a Concentration Greater than Natural Background but Less than the MTCA CUL
- Contaminants Not Detected or Detected Less than Natural Background
- Not Analyzed
- (7') Depth below ground surface to Fill/Native Soil Contact (Approximate)

Natural Background = Natural Background soil metals for Puget Sound (Ecology Publication 94-115)  
 MTCA = Model Toxics Control Act  
 CUL = Cleanup Level (see Table 1)

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

Data Source: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.  
 Projection: NAD83 Washington State Planes, North Zone, US Foot



<b>Fill Soil Conditions</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 4</b>



**Legend**

- FB-4 Investigation Sampling Location
- FB-5 Investigation sampling location completed at 25 degrees to horizontal
- One or More Contaminants Detected at a Concentration Greater Than the MTCA CUL
- One or More Contaminants Detected at a Concentration Greater than Natural Background but Less than the MTCA CUL
- Contaminants Not Detected or Detected Less than Natural Background
- Not Analyzed



Natural Background = Natural Background soil metals for Puget Sound (Ecology Publication 94-115)  
 MTCA = Model Toxics Control Act  
 CUL = Cleanup Level (see Table 1)


**Notes:**

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

Data Source: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.

Projection: NAD83 Washington State Planes, North Zone, US Foot

<b>Native Soil Conditions</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 5</b>

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**Legend**

- GEI-1 Monitoring Well / Grab Groundwater Sampling Location
- ↔ A A' Cross Section Location
- One or More Contaminants Detected at a Concentration Greater Than the MTCA CUL
- Contaminants Not Detected or Detected Less than Natural Background
- Not Analyzed
- (7') Measured Groundwater Elevation (NAVD 88)
- ➔ Inferred Groundwater Flow Direction

Natural Background = Natural Background soil metals for Puget Sound (Ecology Publication 94-115)  
 MTCA = Model Toxics Control Act  
 CUL = Cleanup Level (see Table 1)

**Note(s):**

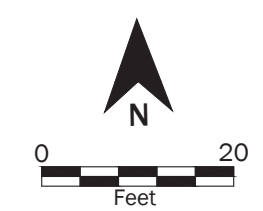
- Elevations on this plan reference the North American Vertical Datum of 1988 (NAVD88).

**Source(s):**

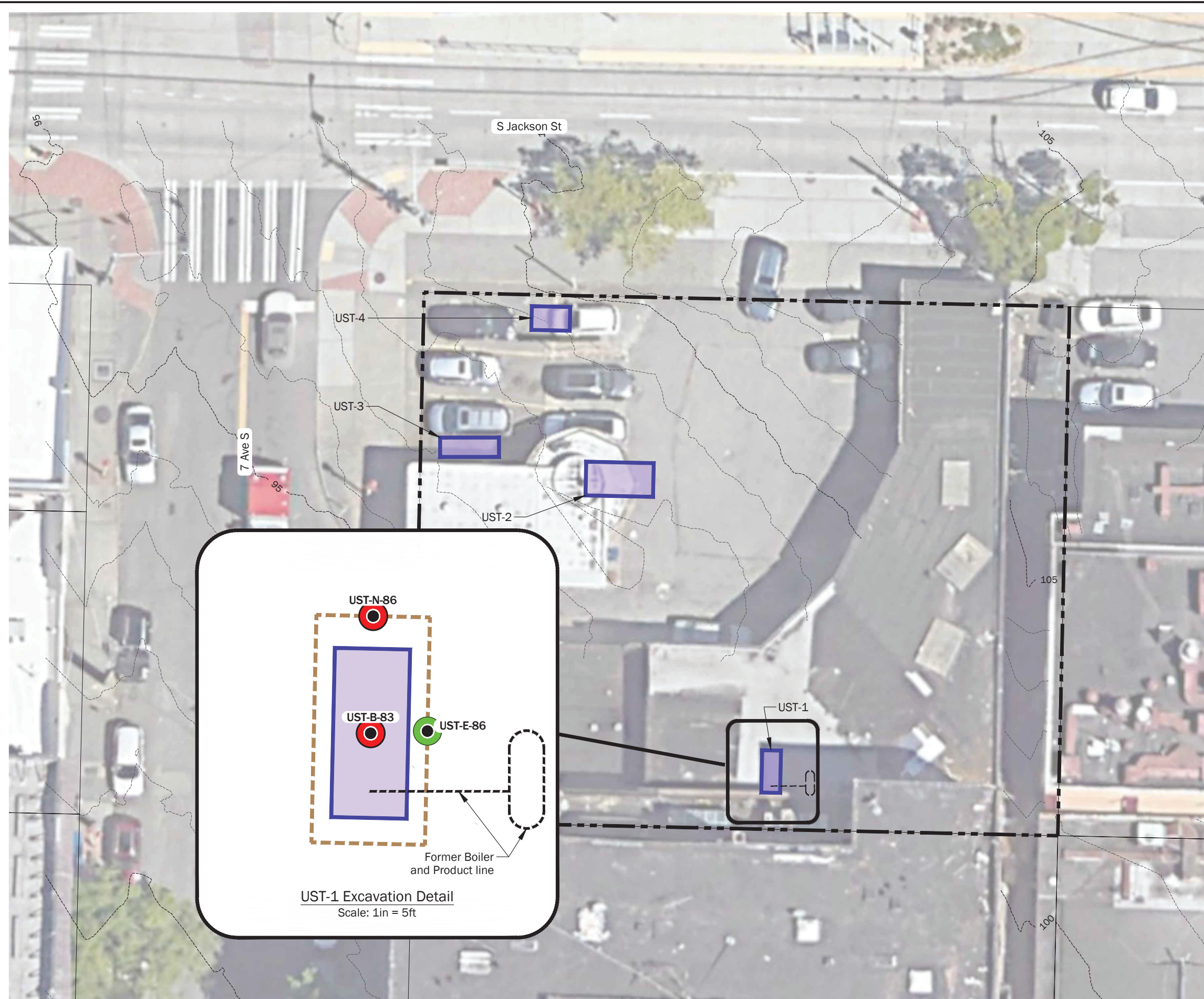
- Aerial from Google Earth Pro dated 5/26/2018
- LIDAR from Puget Sound Lidar Consortium dated 2016

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

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<b>Groundwater Conditions</b>	
701 South Jackson Street Seattle, Washington	
	Figure 6



**Legend**

- Site Boundary
- Approximate Location of Underground Storage Tank (UST) - Removed
- Approximate Limits of UST Removal Excavation
- Confirmation Sample Collected from Limits of UST Removal Excavation
- Confirmation Sample Collected from Limits of UST Removal Excavation
- Sample Elevation (NAVD88)
- Location Identification
- Sample Identification

**Soil Chemical Analytical Results at Limits of UST Excavation**

- Soil Sample Location - Contaminants Either Not Detected or Detected Less Than the MTCA Cleanup Level
- Soil Sample Location - One or More Contaminants Detected Greater Than The MTCA Cleanup Level

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

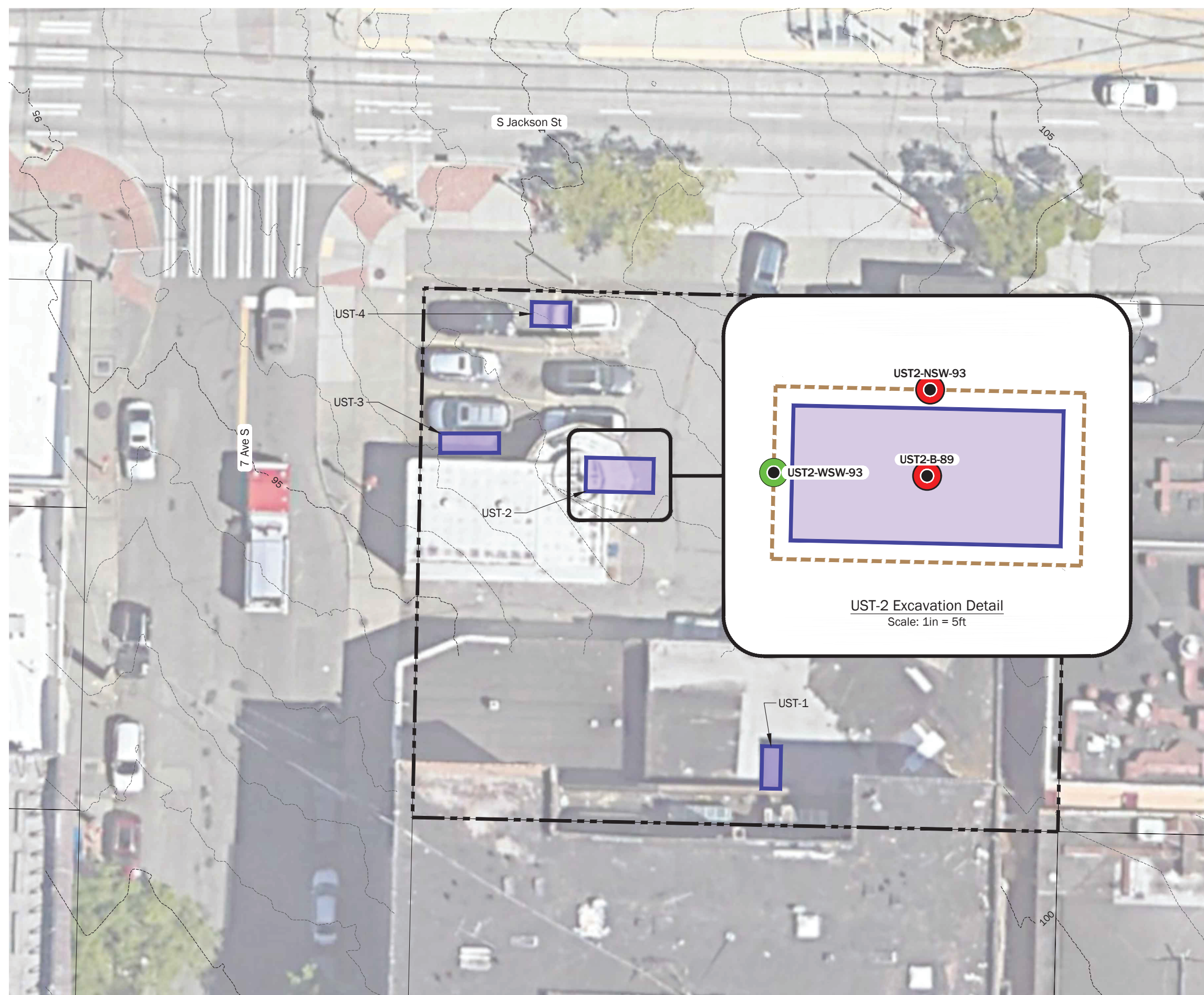
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**UST-1 Removal Excavation and Soil Sampling Locations**

701 South Jackson Street  
Seattle, Washington

**Figure 7**





**Legend**

- Site Boundary
- Approximate Location of Underground Storage Tank (UST) - Removed
- Approximate Limits of UST Removal Excavation
- Confirmation Sample Collected from Limits of UST Removal Excavation
- Sample Elevation (NAVD88)
- Location Identification
- Sample Identification

**Soil Chemical Analytical Results at Limits of UST Excavation**

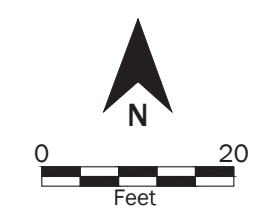
- Soil Sample Location - Contaminants Either Not Detected or Detected Less Than the MTCA Cleanup Level
- Soil Sample Location - One or More Contaminants Detected Greater Than The MTCA Cleanup Level

Source(s):

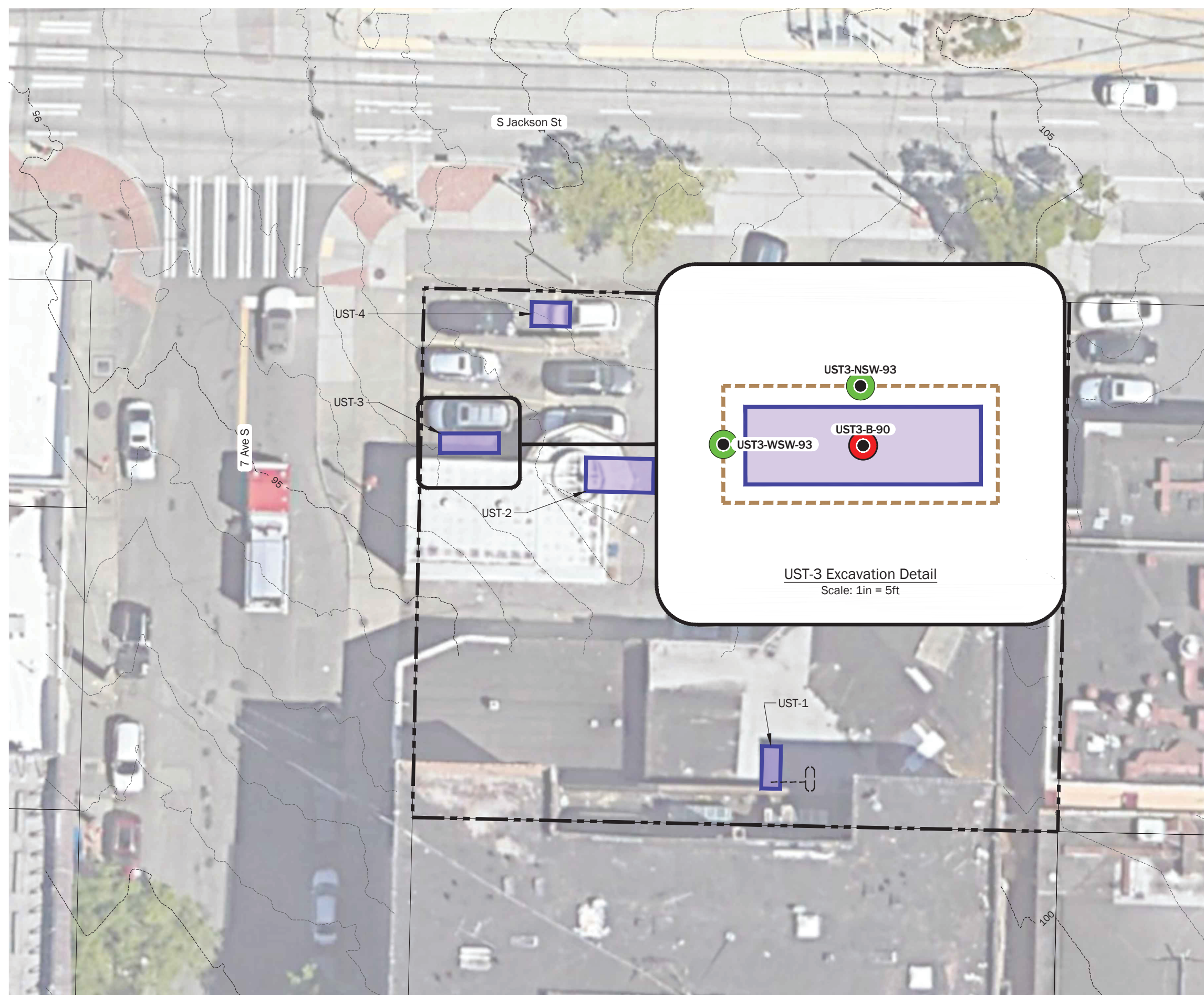
- Aerial from Google Earth Pro dated 5/26/2018.
- LIDAR from Puget Sound Lidar Consortium dated 2016

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

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<b>UST-2 Removal Excavation and Soil Sampling Locations</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 8</b>



**Legend**

- Site Boundary
- Approximate Location of Underground Storage Tank (UST) - Removed
- Approximate Limits of UST Removal Excavation
- Confirmation Sample Collected from Limits of UST Removal Excavation
- Sample Elevation (NAVD88)
- Location Identification
- Sample Identification

**Soil Chemical Analytical Results at Limits of UST Excavation**

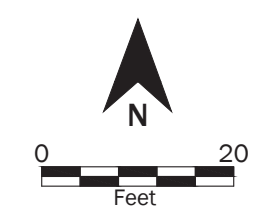
- Soil Sample Location - Contaminants Either Not Detected or Detected Less Than the MTCA Cleanup Level
- Soil Sample Location - One or More Contaminants Detected Greater Than The MTCA Cleanup Level

Source(s):

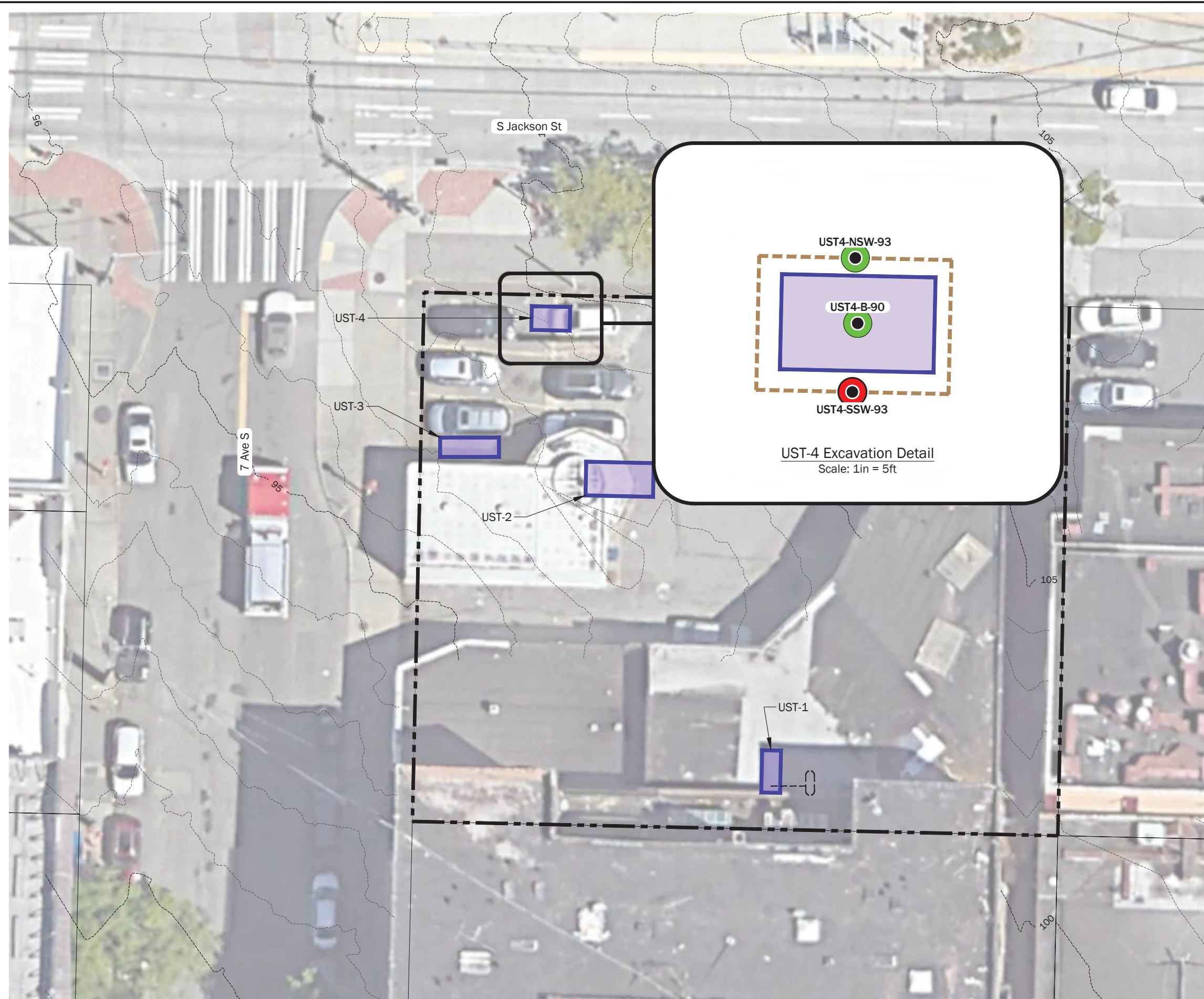
- Aerial from Google Earth Pro dated 5/26/2018.
- LIDAR from Puget Sound Lidar Consortium dated 2016

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

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<b>UST-3 Removal Excavation and Soil Sampling Locations</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 9</b>



- Legend**
- Site Boundary
  - Approximate Location of Underground Storage Tank (UST) - Removed
  - Approximate Limits of UST Removal Excavation
  - Confirmation Sample Collected from Limits of UST Removal Excavation
  - Sample Elevation (NAVD88)
  - Location Identification
  - Sample Identification

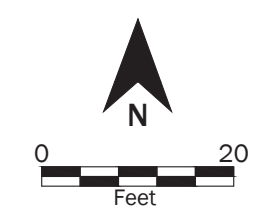
- Soil Chemical Analytical Results at Limits of UST Excavation**
- Soil Sample Location - Contaminants Either Not Detected or Detected Less Than the MTCA Cleanup Level
  - Soil Sample Location - One or More Contaminants Detected Greater Than The MTCA Cleanup Level

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

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<b>UST-4 Removal Excavation and Soil Sampling Locations</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 10</b>

**APPENDIX A**  
**Underground Storage Tank Closure Documents**

## Robert S. Trahan

---

**From:** Imke, Andrew (ECY) <aimk461@ECY.WA.GOV>  
**Sent:** Tuesday, August 8, 2023 8:05 AM  
**To:** Robert S. Trahan  
**Cc:** Brad Padden; Robert Tiscareno; Paul D. Robinette; Tim L. Syverson; Song, Jing (ECY); Mark Sexauer; Demesio Cedeno; JC Cunningham  
**Subject:** RE: Seventh Avenue Service - Cleanup Site ID: 11348: USTs

You don't often get email from aimk461@ecy.wa.gov. [Learn why this is important](#)

### CAUTION! THIS IS AN EXTERNAL EMAIL

If you suspect this is a phishing email, click the **Phish Alert Report** button.

Good morning Robert,

Under the circumstances I am willing to Waive the 30-Day Notice timeframe. Please ensure you follow ALL the regulatory requirements for Permanent Closure of these UST Systems, as well as all other applicable Local, State and Federal requirements. Ensure that there are pictures of the current "as found" status of the tanks, removal operations, EACH sample area and specific location included in the Permanent Closure Packet. Direct observation of decommissioning operations by the ICC certified Decommissioner and site assessment operations by the ICC Certified Site Assessor are mandatory.

Should you have any questions please email me immediately. Failure to comply with the above requirements will void your 30-Day Notice Waiver and result in further enforcement actions.

Respectfully,  
Drew

Andrew A. Imke  
Senior Underground Storage Tank Inspector (Interim UST Unit Supervisor)  
Dept. of Ecology-NWRO: TCP/UST  
Cell (425) 457-3142  
[andrew.imke@ecy.wa.gov](mailto:andrew.imke@ecy.wa.gov)

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---

**From:** Robert S. Trahan <rtrahan@geoengineers.com>  
**Sent:** Monday, August 7, 2023 5:55 PM  
**To:** Imke, Andrew (ECY) <aimk461@ECY.WA.GOV>  
**Cc:** Brad Padden <brad@housingdiversity.com>; Robert Tiscareno <robertt@housingdiversity.com>; Paul D. Robinette <probinette@geoengineers.com>; Tim L. Syverson <tsyverson@geoengineers.com>; Song, Jing (ECY)

<JISO461@ECY.WA.GOV>; Robert S. Trahan <rtrahan@geoengineers.com>; Mark Sexauer <marks@stsconst.com>; Demesio Cedeno <DemesioC@stsconst.com>; JC Cunningham <johnc@stsconst.com>

**Subject:** RE: Seventh Avenue Service - Cleanup Site ID: 11348: USTs

Drew,

Please see the attached 30-day notice for the recently encountered USTs as part of the Seventh Street Service Site. Given that these tanks were not previously identified and the ongoing construction activities, we are requesting on behalf of 701 South Jackson Partners a waiver to the 30-day notice. Currently, tank removal activities are anticipated for tomorrow (8/8) and will include flushing and rinsing the contents of the tanks followed by their removal. A marine chemist will inert the tanks prior to removal as appropriate under supervision of the Seattle Fire Department. GeoEngineers will be onsite to oversee the removal/decommissioning activities and perform an Ecology Site Check/Site Assessment. Note that these tanks are located within an active remedial excavation to address petroleum contamination and that ongoing remedial activities will address any potential releases to soil at the site.

Please don't hesitate to call with any questions or concerns.

Thanks,

**Robert S. Trahan**

**Senior Environmental Scientist | GeoEngineers, Inc.**

**Telephone:** 206.239.3253

**Fax:** 206.728.2732

**Mobile:** 206.240.2300

**Email:** [rtrahan@geoengineers.com](mailto:rtrahan@geoengineers.com)

2101 4<sup>th</sup> Avenue, Suite 950

Seattle, WA 98121

[www.geoengineers.com](http://www.geoengineers.com)

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---

**From:** Imke, Andrew (ECY) <[aimk461@ECY.WA.GOV](mailto:aimk461@ECY.WA.GOV)>

**Sent:** Monday, August 7, 2023 7:23 AM

**To:** Song, Jing (ECY) <[JISO461@ECY.WA.GOV](mailto:JISO461@ECY.WA.GOV)>; Tim L. Syverson <[tsyverson@geoengineers.com](mailto:tsyverson@geoengineers.com)>

**Cc:** Brad Padden <[brad@housingdiversity.com](mailto:brad@housingdiversity.com)>; Carly Hendricks <[chendricks@geoengineers.com](mailto:chendricks@geoengineers.com)>; Robert Tiscareno <[robertt@housingdiversity.com](mailto:robertt@housingdiversity.com)>; Robert S. Trahan <[rtrahan@geoengineers.com](mailto:rtrahan@geoengineers.com)>; Paul D. Robinette <[probinette@geoengineers.com](mailto:probinette@geoengineers.com)>

**Subject:** RE: Seventh Avenue Service - Cleanup Site ID: 11348: USTs

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If you suspect this is a phishing email, click the **Phish Alert Report** button.

Good morning Jing,

Thank you for including me in this correspondence. I look forward to receiving the 30 – Day Notice from Tim. That will get things rolling for the Permeant Closure Packet for these abandoned UST Systems. If Tim needs any guidance he can respond to this email.

Respectfully,  
Drew

Andrew A. Imke  
Senior Underground Storage Tank Inspector (Interim UST Unit Supervisor)  
Dept. of Ecology-NWRO: TCP/UST  
Work (425) 649-7226  
Cell (425) 457-3142  
Fax (425) 649-7161  
[andrew.imke@ecy.wa.gov](mailto:andrew.imke@ecy.wa.gov)

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---

**From:** Song, Jing (ECY) <[JISO461@ECY.WA.GOV](mailto:JISO461@ECY.WA.GOV)>  
**Sent:** Thursday, August 3, 2023 11:55 AM  
**To:** Tim L. Syverson <[tsyverson@geoengineers.com](mailto:tsyverson@geoengineers.com)>  
**Cc:** Brad Padden <[brad@housingdiversity.com](mailto:brad@housingdiversity.com)>; Carly Hendricks <[chendricks@geoengineers.com](mailto:chendricks@geoengineers.com)>; Robert Tiscareno <[robertt@housingdiversity.com](mailto:robertt@housingdiversity.com)>; Robert S. Trahan <[rtrahan@geoengineers.com](mailto:rtrahan@geoengineers.com)>; Paul D. Robinette <[probinette@geoengineers.com](mailto:probinette@geoengineers.com)>; Imke, Andrew (ECY) <[aimk461@ECY.WA.GOV](mailto:aimk461@ECY.WA.GOV)>  
**Subject:** RE: Seventh Avenue Service - Cleanup Site ID: 11348: USTs

Tim,

Thank you for letting me know.

Are there products inside the tanks? Do you have photos of the tanks to share?

Also please contact Ecology UST inspector Andrew Imke (cc'd) if you need a waiver for 30-day notice to remove the tanks.

Jing

---

**From:** Tim L. Syverson <[tsyverson@geoengineers.com](mailto:tsyverson@geoengineers.com)>  
**Sent:** Thursday, August 3, 2023 11:44 AM  
**To:** Song, Jing (ECY) <[JISO461@ECY.WA.GOV](mailto:JISO461@ECY.WA.GOV)>  
**Cc:** Brad Padden <[brad@housingdiversity.com](mailto:brad@housingdiversity.com)>; Carly Hendricks <[chendricks@geoengineers.com](mailto:chendricks@geoengineers.com)>; Robert Tiscareno <[robertt@housingdiversity.com](mailto:robertt@housingdiversity.com)>; Robert S. Trahan <[rtrahan@geoengineers.com](mailto:rtrahan@geoengineers.com)>; Paul D. Robinette

<[probinette@geoengineers.com](mailto:probinette@geoengineers.com)>

**Subject:** Seventh Avenue Service - Cleanup Site ID: 11348: USTs

Hi Jing,

A brief email separate from our regular project status updates.

Yesterday (August 2, 2023) two underground storage tanks (USTs) were encountered during construction excavation in the north central portion of the property in the area where two other USTs had been removed in 2010 (see the RI/FS document). We are getting more details regarding the size and contents of the two unanticipated tanks.

Once the tanks were noted, the excavation was stopped and moved to another area of the property. There is no evidence that the tanks were damaged, or of a release associated with either of the tanks.

STS is coordinating for decommissioning of the tanks and preparation of the appropriate documentation, per the Ecology regulations, prior to removal.

Please let us know if you have any questions.

Thanks,

Tim

**Tim L. Syverson, LHG**  
**Associate Environmental Geologist | GeoEngineers, Inc.**  
**Telephone:** 206.448.4197  
**Fax:** 206.728.2732  
**Mobile:** 206.605.9236  
**Email:** [tsyverson@geoengineers.com](mailto:tsyverson@geoengineers.com)

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Vineta Mills, M.S.  
Eric Young, B.S.

5500 4th Avenue South  
Seattle, WA 98108  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

July 3, 2023

Tom Wise, Project Manager  
Tank Wise  
5405 W Marginal Way SW  
Seattle, WA 98106

Dear Mr Wise:

Included are the results from the testing of material submitted on June 26, 2023 from the 701 S Jackson St, F&BI 306404 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
TAW0703R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Sludge	Client:	Tank Wise
Date Received:	06/26/23	Project:	701 S Jackson St, F&BI 306404
Date Extracted:	06/27/23	Lab ID:	306404-01
Date Analyzed:	06/27/23	Data File:	306404-01.153
Matrix:	Soil/Product	Instrument:	ICPMS2
Units:	mg/kg (ppm)	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	73.9
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	5.11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Tank Wise
Date Received:	Not Applicable	Project:	701 S Jackson St, F&BI 306404
Date Extracted:	06/27/23	Lab ID:	I3-510 mb2
Date Analyzed:	06/27/23	Data File:	I3-510 mb2.110
Matrix:	Soil/Product	Instrument:	ICPMS2
Units:	mg/kg (ppm)	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Sludge	Client:	Tank Wise
Date Received:	06/26/23	Project:	701 S Jackson St, F&BI 306404
Date Extracted:	06/29/23	Lab ID:	306404-01 1/500
Date Analyzed:	06/29/23	Data File:	062936.D
Matrix:	Soil/Product	Instrument:	GCMS11
Units:	mg/kg (ppm)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	114	79	128
Toluene-d8	100	84	121
4-Bromofluorobenzene	101	84	116

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<25
Chloroethane	<250
1,1-Dichloroethene	<25
Methylene chloride	<250
trans-1,2-Dichloroethene	<25
1,1-Dichloroethane	<25
cis-1,2-Dichloroethene	<25
1,2-Dichloroethane (EDC)	<25
1,1,1-Trichloroethane	<25
Trichloroethene	<10
Tetrachloroethene	<12

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Tank Wise
Date Received:	Not Applicable	Project:	701 S Jackson St, F&BI 306404
Date Extracted:	06/29/23	Lab ID:	03-1524 mb
Date Analyzed:	06/29/23	Data File:	062909.D
Matrix:	Soil/product	Instrument:	GCMS11
Units:	mg/kg (ppm)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	79	128
Toluene-d8	100	84	121
4-Bromofluorobenzene	106	84	116

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/03/23

Date Received: 06/26/23

Project: 701 S Jackson St, F&BI 306404

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 306424-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2	<0.05	87	90	50-150	3
Chloroethane	mg/kg (ppm)	2	<0.5	112	112	50-150	0
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	91	92	50-150	1
Methylene chloride	mg/kg (ppm)	2	<0.5	97	97	50-150	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	95	96	50-150	1
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	95	95	50-150	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	92	95	50-150	3
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	98	99	50-150	1
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	96	97	50-150	1
Trichloroethene	mg/kg (ppm)	2	<0.02	95	97	50-150	2
Tetrachloroethene	mg/kg (ppm)	2	<0.025	97	100	50-150	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2	101	35-135
Chloroethane	mg/kg (ppm)	2	110	21-147
1,1-Dichloroethene	mg/kg (ppm)	2	100	49-138
Methylene chloride	mg/kg (ppm)	2	105	25-146
trans-1,2-Dichloroethene	mg/kg (ppm)	2	104	62-126
1,1-Dichloroethane	mg/kg (ppm)	2	105	64-131
cis-1,2-Dichloroethene	mg/kg (ppm)	2	102	62-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	107	73-123
1,1,1-Trichloroethane	mg/kg (ppm)	2	105	66-125
Trichloroethene	mg/kg (ppm)	2	103	62-116
Tetrachloroethene	mg/kg (ppm)	2	104	69-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/03/23

Date Received: 06/26/23

Project: 701 S Jackson St, F&BI 306404

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL/PRODUCT SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 306340-05 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<5	95	91	75-125	4
Barium	mg/kg (ppm)	50	44.7	143 b	96 b	75-125	39 b
Cadmium	mg/kg (ppm)	10	<5	99	97	75-125	2
Chromium	mg/kg (ppm)	50	5.29	94	97	75-125	3
Copper	mg/kg (ppm)	50	<25	86	96	75-125	11
Lead	mg/kg (ppm)	50	874	0 b	374 b	75-125	200 b
Mercury	mg/kg (ppm)	5	<5	95	91	75-125	4
Nickel	mg/kg (ppm)	25	5.43	85 b	91 b	75-125	7 b
Selenium	mg/kg (ppm)	5	<5	68 vo	62 vo	75-125	9
Silver	mg/kg (ppm)	10	<5	96	95	75-125	1
Zinc	mg/kg (ppm)	50	107	2 b	119 b	75-125	193 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	101	80-120
Barium	mg/kg (ppm)	50	99	80-120
Cadmium	mg/kg (ppm)	10	101	80-120
Chromium	mg/kg (ppm)	50	107	80-120
Copper	mg/kg (ppm)	50	103	80-120
Lead	mg/kg (ppm)	50	104	80-120
Mercury	mg/kg (ppm)	5	100	80-120
Nickel	mg/kg (ppm)	25	107	80-120
Selenium	mg/kg (ppm)	5	92	80-120
Silver	mg/kg (ppm)	10	101	80-120
Zinc	mg/kg (ppm)	50	101	80-120

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## ENVIRONMENTAL CHEMISTS

### Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



306404

SAMPLE CHART OF CUSTODY

06/26/23

M1

Page # of

Report To Tom Wise

Company Tank Wise

Address 5105 W. Marginal Way SW

City, State, ZIP Sea WA 98106

Phone 206 793-2425 Email Tom.Wise@TankWise.com

SAMPLERS (signature)

PROJECT NAME 701 S Jackson St Sea WA

REMARKS

INVOICE TO

Project specific RIs? - Yes / No

PO #

TURNAROUND TIME

- Standard turnaround
- RUSH
- Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

- Archive samples
- Other \_\_\_\_\_
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					
<u>RCRA 8+</u>	<u>-01</u>	<u>6-26</u>	<u>1:45 pm</u>	<u>Sludges</u>	<u>1</u>					<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<u>RCRA Metals</u>	<u>+ Cu, Ni, Zn</u>	<u>Label: Sludge</u>
<u>Copper-Nickel-Zinc</u>																	
<u>Chlorinated Solvents</u>		<u>11</u>	<u>11</u>	<u>11</u>													

Samples received at 16

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>Tom Wise</u>	<u>Tank Wise</u>	<u>6-26-23</u>	<u>15:44</u>
Received by: <u>[Signature]</u>	<u>AMHPHAN</u>	<u>FSB</u>	<u>06/26/23</u>	<u>15:44</u>
Relinquished by:				
Received by:				

MARINE CHEMIST CERTIFICATE  
SERIAL NO 48066

TANK WISE	TANK WISE	5 JULY 23
Survey Requested by	Vessel Owner or Agent	Date
UST	UST	701 S. JACKSON
Vessel	Type of Vessel	Specific Location of Vessel
HEATING OIL/DIESEL X3	VISUAL, O2, LEL, VOC	1355
Last Three (3) Loadings	Tests Performed	Time Survey Completed

1270 UST DIESEL

SAFE FOR EXCAVATION

SAFE FOR TRANSPORTATION

PLEASE NOTE:  
 ① MAY REMOVE AS LATE AS FRIDAY  
 NIGHT IF NEEDED. BEYOND THAT,  
 CALL THE CHEMIST FOR FURTHER  
 INSPECTION INSTRUCTIONS.

In the event of changes adversely affecting conditions in the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

Qualifications: Manipulation of valves or devices tending to alter conditions in pipe lines or tanks noted above, unless specifically approved in this certificate, will require re-inspection and a new Certificate for spaces so affected. All piping, heating coils, pumps and floating roof gaskets attached to or contained within spaces listed above shall be considered "NOT SAFE" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

(These detail the minimum conditions for Safe Entry and Hot Work.) The Marine Chemist may request additional measures if workplace conditions so dictate.

**ATMOSPHERE SAFE FOR WORKERS** means that in a space (a) the oxygen content is between 19.5% and 22% by volume, and (b) combustible gas is less than 10% of the Lower Explosive Limit, and (c) airborne toxic materials are within permissible concentrations as listed in OSHA's Subpart Z or in ACGIH's current list of Threshold Limit Values.

**SAFE FOR HOT WORK** means that (a) oxygen within the space is less than 22% by volume; and (b) the combustible gas is less than 10% of the Lower Explosive Limit; and (c) cargo residues within the space will not combust during hot work; and (d) pipes that can deliver hazardous materials to the workspace have been separated, blanked, or locked out, and nearby hazardous spaces have been evaluated and noted on the certificate.

**NOT SAFE FOR HOT WORK:** In the compartment or space so designated, hot work is not permitted.

CRAIG TREMBLE (ct)  
206-313-6933 CELL

"The undersigned acknowledges receipt of this Certificate and understands conditions and limitations under which it was issued."

Signed *[Signature]* Name Tom Wise Company TANK WISE

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Date 5 JULY 23 Signed *[Signature]* Marine Chemist #688 Certificate No

FMO STAFF USE - Inspection Date: 7/6 | Inspection Time: 14:00 | Staff: ID

RECEIVED

JUN 26 2023



Your  
Seattle  
Fire Department

FIRE DEPARTMENT SECTION  
APPLICATION FOR TEMPORARY PERMIT

Code 7908 531100  
Permit Fee: \$288.00

Commercial Tank Removal/Decommissioning

Date Issued: 7/6/23

APPLICANT TO COMPLETE PAGES 1 AND 2

Tank(s) must be removed from site on the same day as permit is issued!

BUSINESS NAME: <b>TANK WISE LLC</b>		
MAILING ADDRESS: <b>5405 W MARGINAL WAY SW</b>		SUITE:
CITY: <b>SEATTLE</b>	STATE: <b>WA</b>	ZIP: <b>98106</b>
JOBSITE ADDRESS: <u>701 S JACKSON</u>		
CONTACT PERSON: <b>TOM WISE</b>		PHONE NUMBER: <b>(206) 793-2425</b>
Number of Tank(s): <u>1</u>	Tank Size(s): <u>1240-</u>	<input type="checkbox"/> Aboveground tank
Product(s) Previously Contained: <u>Diesel</u>		<input type="checkbox"/> Underground tank
<input checked="" type="checkbox"/> Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)		
<input type="checkbox"/> Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)		
Hot work being conducted: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, a separate hot work permit is required)		

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 p.m., or mailed to:

Seattle Fire Department  
Fire Marshal's Office - Permits  
220 Third Ave S, 2nd Floor  
Seattle, WA 98104-2608

To pay with a Visa or Master Card, email this completed application to us,  
and then visit [www.seattle.gov/fire/permits](http://www.seattle.gov/fire/permits) to make a payment.  
Tel: (206) 386-1450  
E-mail: [permits@seattle.gov](mailto:permits@seattle.gov)

**WORK SHALL NOT COMMENCE UNTIL SFD INSPECTION HAS BEEN COMPLETED.  
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!  
Contact us at least 2 business days prior to intended start date to request an inspection.  
Email: [permits@seattle.gov](mailto:permits@seattle.gov) | Call: (206) 386-1450**

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, and federal, state, and local regulations.

I understand the conditions of this permit and will ensure all tank removal/decommissioning operations are conducted accordingly. I acknowledge that I received an inspection by a Seattle Fire Department inspector today.

Tom Wise Print Name      [Signature] Signature      Owner Title

Special permit conditions: Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)

**THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

FMO USE:	APPROVED BY:
Check No.: <u>00026908062623</u>	Inspector: <u>Adam [Signature]</u>
Receipt No.: <u>5-350857</u>	Name of Marine Chemist: <u>Craig</u>
Application ID#: <u>131149</u>	Date: <u>7/6/23</u>
	SFD ID# <u>2343</u>
	Certificate # <u>48066</u>

715, Jackson



Certificate of Weight  
Issued under authority of City of Seattle Ord. 7.04.580

**SEATTLE IRON & METALS CORP.**

601 S. Myrtle Street Seattle, WA 98108 206-682-0040

PAID  
JUL 08 2012  
SEATTLE IRON & METALS CORP.

Weighted For: Tank Wise

Commodity: S Price: - 85

1404

Date \_\_\_\_\_  
Ticket # \_\_\_\_\_  
Gross lbs. \_\_\_\_\_  
Tare lbs. \_\_\_\_\_  
Net lbs. \_\_\_\_\_

I, the undersigned, certify that the weights indicated hereon are true and correct.

Weighted By: [Signature]  
Licensed City Weigher

(5/20)

**ORIGINAL**

FMO STAFF USE - Inspection Date: \_\_\_\_\_ | Inspection Time: \_\_\_\_\_ | Staff: \_\_\_\_\_

Your  
Seattle  
Fire Department



APPLICATION FOR TEMPORARY PERMIT

Code 7908

Commercial Tank Removal/Decommissioning

Permit Fee: \$311.00

Date Issued: 8/8/23

APPLICANT TO COMPLETE PAGES 1 AND 2

Tank(s) must be removed from site on the same day as permit is issued!

BUSINESS NAME: <b>Tank Wise LLC</b>		
MAILING ADDRESS: <b>5405 W Marginal Way SA</b>		SUITE:
CITY: <b>Seattle</b>	STATE: <b>WA</b>	ZIP: <b>98104</b>
JOBSITE ADDRESS: <b>701 S Jackson Street Seattle WA</b>		<b>206 937-3995</b>
CONTACT PERSON: <b>Monica Vijarro</b>		PHONE NUMBER: <b>( 206 ) 937-3995</b>
Number of Tank(s): <u>3</u>	Tank Size(s): <u>675 1500 1500</u>	<input type="checkbox"/> Aboveground tank
Product(s) Previously Contained: <u>Gasoline</u>		<input checked="" type="checkbox"/> Underground tank
<input checked="" type="checkbox"/> Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)		
<input type="checkbox"/> Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)		
Hot work being conducted: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, a separate hot work permit is required)		

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 p.m., or mailed to:

Seattle Fire Department  
Fire Marshal's Office - Permits  
220 Third Ave S, 2nd Floor  
Seattle, WA 98104-2608

To pay with a Visa or Master Card, email this completed application to us,  
and then visit [www.seattle.gov/fire/permits](http://www.seattle.gov/fire/permits) to make a payment.  
Tel: (206) 386-1450  
E-mail: [permits@seattle.gov](mailto:permits@seattle.gov)

**WORK SHALL NOT COMMENCE UNTIL SFD INSPECTION HAS BEEN COMPLETED.  
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!  
Contact us at least 2 business days prior to intended start date to request an inspection.  
Email: [permits@seattle.gov](mailto:permits@seattle.gov) | Call: (206) 386-1450**

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, and federal, state, and local regulations.

I understand the conditions of this permit and will ensure all tank removal/decommissioning operations are conducted accordingly. I acknowledge that I received an inspection by a Seattle Fire Department inspector today.

Monica Vijarro, Monica L. Vijarro 8-2-23  
Print Name Signature Title

Special permit conditions: Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)  
Per Craig with Sound Testing 3rd tank okay to be removed 0600 8/19/23

**THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

FMO USE:	APPROVED BY:
Check No.: _____	Inspector: <u>[Signature]</u> SFD ID# <u>2343</u>
Receipt No.: _____	Name of Marine Chemist <u>Joe Little</u> Certificate # <u>725</u>
Application ID#: _____	Date: <u>8/19/23</u>

**STRAIGHT BILL OF LADING**  
ORIGINAL — NOT NEGOTIABLE

Shipper No. 23022

Carrier No. \_\_\_\_\_

Date 8-8-23

Page 1 of 4

Marine Vacuum Service Inc.

(Name of carrier)

(SCAC)

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO: Consignee Marine Vacuum Service Inc.

Street 1516 South Graham Street

City Seattle State WA Zip Code 98108

FROM: Shipper GARY

Street 701 South Jackson St

City Seattle State WA Zip Code \_\_\_\_\_

ChemTel 1-800-255-3924  
Contract MIS3627926

24 hr. Emergency Contact Tel. No. \_\_\_\_\_

Route \_\_\_\_\_ Vehicle Number 049

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1 TT	X	(DOT Spec Tank Required) UN1863 Fuel, Aviation, Turbin Engine, Class 3, PG I				
1 TT	X	(DOT Spec Tank Required) UN1203 Gasoline, Mixture Class 3, PG II				
1 TT	X	(DOT Spec Tank Required) UN1203 Gasoline, Class 3, PG II				
1 TT	X	NA1993 Diesel Mixture, Class 3, PG III				
1 TT	X	NA1993 Diesel, Class 3, PG III				
1 TT	X	NA1270 Petroleum Oil, Class 3, PG I				
1 TT	X	NA1270 Petroleum Oil, Mixture, Class 3, PG I				
1 TT		Oily Waste Water Non Reg by DOT	<u>100</u>	<u>Gall</u>		
1 TT		Waste Water Non Reg by DOT				
1 TT		Used Oil Non Reg by DOT				
1 TT		Used Coolant Non Reg by DOT				

PLACARDS TENDERED: YES  NO

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \_\_\_\_\_ per \_\_\_\_\_"  
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.  
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.  
Signature \_\_\_\_\_

REMIT C.O.D. TO: ADDRESS  
**COD** Amt: \$ \_\_\_\_\_  
Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.  
(Signature of Consignor) \_\_\_\_\_  
C.O.D. FEE: PREPAID  COLLECT  \$ \_\_\_\_\_  
TOTAL CHARGES \$ \_\_\_\_\_  
FREIGHT CHARGES: FREIGHT PREPAID  Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to des-

lination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER [Signature]  
PER 8/8/23

CARRIER MAR VAC  
PER [Signature]  
DATE 8-8-23

Permanent post-office address of shipper.

SOUND TESTING, INC.

P.O. BOX 16204 SEATTLE, WA 98116

(206) 932-0206 FAX (206) 937-3848

WWW.SOUNDTESTINGINC.COM

MARINE CHEMIST CERTIFICATE

SERIAL NO 48152

TANK WISE

TANK WISE / GARY

8/8/23

Survey Requested by

Vessel Owner or Agent

Date

UST

UST

701 S JACKSON ST

Vessel

Type of Vessel

SEATTLE

Specific Location of Vessel

GASOLINE #3

Visual, O<sub>2</sub>

1120 HRS

Last Three (3) Loadings

Tests Performed

Time Survey Completed

1,000 gal UST #1

INERTED - CO<sub>2</sub>

1,000 gal UST #2

SAFE FOR EXCAVATION

2,500 gal UST

SAFE FOR TRANSPORT

ALL TANKS:

O<sub>2</sub> < 5%

REQUIREMENTS: KEEP ALL OPENING TO THE UST'S PLUGGED

In the event of changes adversely affecting conditions in the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

Qualifications: Manipulation of valves or devices tending to alter conditions in pipe lines or tanks noted above, unless specifically approved in this certificate, will require re-inspection and a new Certificate for spaces so affected. All piping, heating coils, pumps and floating roof gaskets attached to or contained within spaces listed above shall be considered "NOT SAFE" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

(These detail the minimum conditions for Safe Entry and Hot Work.) The Marine Chemist may request additional measures if workplace conditions so dictate.

ATMOSPHERE SAFE FOR WORKERS means that in a space (a) the oxygen content is between 19.5% and 22% by volume, and (b) combustible gas is less than 10% of the Lower Explosive Limit, and (c) airborne toxic materials are within permissible concentrations as listed in OSHA's Subpart Z or in ACGIH's current list of Threshold Limit Values.

SAFE FOR HOT WORK means that (a) oxygen within the space is less than 22% by volume; and (b) the combustible gas is less than 10% of the Lower Explosive Limit; and (c) cargo residues within the space will not combust during hot work; and (d) pipes that can deliver hazardous materials to the workspace have been separated, blanked, or locked out, and nearby hazardous spaces have been evaluated and noted on the certificate.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

"The undersigned acknowledges receipt of this Certificate and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed

[Signature]

Name

TANK WISE 8/8/23

Company

Date

Signed

[Signature] # 725

Marine Chemist

Certificate No

POSTING

SOUND TESTING, INC.

P.O. BOX 16204 SEATTLE, WA 98116  
(206) 932-0206 FAX (206) 937-3848

WWW.SOUNDTESTINGINC.COM

MARINE CHEMIST CERTIFICATE

SERIAL N<sup>o</sup> 48161

08/18/23

Tankwise Survey Requested by - 2500 Gal UST	Tankwise Vessel Owner or Agent UST	Date 08/18/23
Vessel	Type of Vessel	Specific Location of Vessel Tank Wise Yard
Last Three (3) Loadings Gasoline (3x)	Tests Performed O <sub>2</sub> , LEL, CO, H <sub>2</sub> S, VOC, Visual	Time Survey Completed 1420

-2500 Gal UST

→ Inerted -w/ CO<sub>2</sub>  
Safe For Limited Hotwork  
• 5% Oxygen, • 4% LEL

Limitations → Limit hotwork to grinding/cutoff wheel to cut cleaning hole in end of tank. Work to be completed by 1500 on 08/18/23, chemist will stand by.

Post Firewatch w/ extinguisher during cutting

In the event of changes adversely affecting conditions in the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

Qualifications: Manipulation of valves or devices tending to alter conditions in pipe lines or tanks noted above, unless specifically approved in this certificate, will require re-inspection and a new Certificate for spaces so affected. All piping, heating coils, pumps and floating roof gaskets attached to or contained within spaces listed above shall be considered "NOT SAFE" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

(These detail the minimum conditions for Safe Entry and Hot Work.) The Marine Chemist may request additional measures if workplace conditions so dictate.

**ATMOSPHERE SAFE FOR WORKERS** means that in a space (a) the oxygen content is between 19.5% and 22% by volume, and (b) combustible gas is less than 10% of the Lower Explosive Limit, and (c) airborne toxic materials are within permissible concentrations as listed in OSHA's Subpart Z or in ACGIH's current list of Threshold Limit Values.

**SAFE FOR HOT WORK** means that (a) oxygen within the space is less than 22% by volume; and (b) the combustible gas is less than 10% of the Lower Explosive Limit; and (c) cargo residues within the space will not combust during hot work; and (d) pipes that can deliver hazardous materials to the workspace have been separated, blanked, or locked out, and nearby hazardous spaces have been evaluated and noted on the certificate.

**NOT SAFE FOR HOT WORK:** In the compartment or space so designated, hot work is not permitted.

"The undersigned acknowledges receipt of this Certificate and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed  Name \_\_\_\_\_ Company Tankwise Date 08/18/23  
 Signed  Marine Chemist Lucas Kuebler Certificate No 718

POSTING





Certificate of Weight  
 Issued under authority of City of Seattle Ord. 7.04.580

**SEATTLE IRON & METALS CORP.**

601 S. Myrtle Street Seattle, WA 98108 206-682-0040

Weighed For: Tank wise

Date 08/22/23 09:37 am

Ticket # 132583

Commodity: S Price: -85

Gross lbs. 15210 lb

Tare lbs. 11620 lb

Net lbs. 3590 lb

I, the undersigned, certify that the weights indicated hereon are true and correct.

Weighed By: [Signature]  
 Licensed City Weigher

**PAID**

**AUG 22 2023**

SEATTLE IRON & METALS CORP

**ORIGINAL**

KS300 (5/20)



Certificate of Weight  
 Issued under authority of City of Seattle Ord. 7.04.580

**SEATTLE IRON & METALS CORP.**

601 S. Myrtle Street Seattle, WA 98108 206-682-0040

Weighed For: Tank wise

Date 08/22/23 02:14 PM

Ticket # 132629

Commodity: S Price: -85

Gross lbs. 14000 lb

Tare lbs. 11620 lb

Net lbs. 2380 lb

I, the undersigned, certify that the weights indicated hereon are true and correct.

Weighed By: [Signature]  
 Licensed City Weigher

**PAID**

**AUG 22 2023**

SEATTLE IRON & METALS CORP

**ORIGINAL**



# 30-DAY NOTICE

## FOR UNDERGROUND STORAGE TANK SYSTEMS

UST ID #: 9017

County: King

*This form provides Ecology 30-days' advanced notice for projects, as required by Chapter 173-360A WAC. Instructions are on the back page.*

Please ✓ the appropriate box:     Intent to Install     Intent to Close     Change-in-Service

I. SITE INFORMATION			II. OWNER/OPERATOR INFORMATION			
Tag or UBI # (if applicable): <u>Not Applicable</u>			Owner/Operator Name: <u>701 South Jackson Partners LLC</u>			
UST ID # (if applicable): <u>9017</u>			Business Name: <u>701 South Jackson Partners LLC</u>			
Site Name: <u>Seventh Avenue Service</u>			Mailing Address: <u>159 South Jackson Street</u>			
Site Address: <u>701 South Jackson Street</u>		City: <u>Seattle</u>	State: <u>WA</u>	Zip: <u>98104</u>		
City: <u>Seattle</u>			Phone: <u>206-915-9702</u>			
Phone: <u>206-915-9702</u>			Email: <u>robertt@housingdiversity.com</u>			
III. CERTIFIED SERVICE PROVIDER(S)						
Check the appropriate boxes. If more than one service provider is required for this project, fill out both sections.						
<b>Note: Individuals performing UST services MUST be ICC-certified or have passed another qualifying exam approved by the Department of Ecology.</b>						
1) <input type="checkbox"/> Installer <input checked="" type="checkbox"/> Decommissioner <input type="checkbox"/> Site Assessor						
Company Name: <u>Tank Wise LLC</u>			Certification Type: <u>U2</u>			
Service Provider Name: <u>Seattle Oil Solution</u>			Cert. No.: <u>9408330-U2</u>		Exp. Date: <u>6/15/2025</u>	
Provider Phone: <u>206-937-3995</u>			Provider Email: <u>wtankwise@gmail.com office@hotlineheating.net</u>			
2) <input type="checkbox"/> Installer <input type="checkbox"/> Decommissioner <input type="checkbox"/> Site Assessor						
Company Name:			Certification Type:			
Service Provider Name:			Cert. No.:		Exp. Date:	
Provider Phone:			Provider Email:			
IV. TANK AND/OR PIPING INFORMATION						
TANK ID	TANK CAPACITY	SUBSTANCE STORED	PIPING		DATE PROJECT IS EXPECTED TO BEGIN	COMMENTS
			INSTALLATION OR REPLACEMENT ONLY (Y/N)			
<u>T2</u>	<u>1,000 gallon</u>	<u>Gas</u>	<u>N</u>		<u>8/8/2023</u>	<u>Previously unidentified tanks encountered during site clean/property redevelopment (Site ID 11348). Tanks will be permanently decommissioned and removed from the property.</u>
<u>T3</u>	<u>1,000 gallon</u>	<u>Waste Oil</u>	<u>N</u>		<u>8/8/2023</u>	
<u>T4</u>	<u>1,000 gallon</u>	<u>Waste Oil</u>	<u>N</u>		<u>8/8/2023</u>	

# 30-DAY NOTICE

## FOR UNDERGROUND STORAGE TANK SYSTEMS

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### GENERAL INSTRUCTIONS

Under WAC 173-360A-0300, 173-360A-0810 and 173-360A-0820, owners and/or operators are required to notify the Department of Ecology (Ecology) **at least 30 days prior** to beginning underground storage tank (UST) and/or piping installation, decommissioning, or change-in-service projects by mailing this notice to the address below. A separate form must be used for each project type (e.g. install, removal). Once this form is received by Ecology, it is date-stamped and returned to the owner/operator listed on the form. Installation and decommissioning projects cannot begin within the first 30 days after the date stamped on this form unless the wait-period has been waived by a regional Ecology UST inspector. If a project cannot meet the deadlines described below, an additional 30-Day Notice may be required.

Department of Ecology  
Underground Storage Tank Section  
PO Box 47655  
Olympia, WA 98504-7655

### SITE AND OWNER/OPERATOR INFORMATION

Fill in the site/owner information completely. The contact person listed on this form must confirm the exact date an installation or decommissioning project will begin by contacting the regional UST inspector **at least 3 business days** before proceeding.

### INSTALLATION/REPLACEMENT OF TANK AND/OR PIPING

Installation projects must begin within 90 days of the date stamped on this notice. Complete the Tank Information section by assigning Tank ID numbers that have not previously been used at the facility. Once processed, this form allows a one-time drop of product for UST system testing purposes only. The fuel drop is not required to occur within the 90-day period. Once your tank(s) store more than one inch of product, leak detection equipment and monitoring must be in place.

To receive additional deliveries and operate the new tanks/piping, you must submit the [Business License application, UST Addendum](#), and the tank/piping Manufacturer's Installation Checklists to the Department of Revenue (DOR) **within 30 days** of completing the installation. This activates the mailing of your Business License with tank endorsement(s) from DOR and the facility compliance tag from Ecology.

If only piping is being installed or replaced piping, the ICC-certified installer must certify the installation by completing the [Retrofit/Repair Checklist](#) with the Manufacturer's Installation Checklist and submitting it to the owner/operator. The form packet must be submitted by the owner/operator to Ecology **within 30 days** of completing the piping installation.

### PERMANENT CLOSURE OF TANK AND/OR PIPING

Decommissioning projects must be completed within 90 days after the date stamped on this returned notice. Complete the Tank Information section using Tank ID numbers listed on the Business License. Use the Comments box to include additional information, such as the date when product was removed from both the piping and the tank to less than one inch.

Contact your local fire marshal and planning department prior to tank closure to procure any permits required by county or other local jurisdictions. Compliance with the State Environmental Policy Act (SEPA) Rules, Chapter 197-11 WAC may also apply.

A site assessment is required at the time of closure. If contamination is not discovered, a site assessment report must be submitted to the above address **within 30 days**. If contamination is discovered or confirmed, it must be reported to the appropriate Ecology regional office **within 24 hours** and a site characterization report must be submitted to the above address **within 90 days**.

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The following are some examples of tanks that are exempt from the UST regulations.

- ❖ Farm or residential tanks, 1,100 gallons or less, used to store motor fuel for personal or farm use only.  
The fuel must be used for farm purposes and cannot be for resale.
- ❖ Tanks used for storing heating oil that is used solely for the purpose of heating the premises.
- ❖ Tanks with a capacity of 110 gallons or less.
- ❖ Emergency overflow tanks, catch basins, or sumps.

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If you need this document in a format for the visually impaired, call Toxics Cleanup Program at (360) 407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with speech disability, call (877) 833-6341.



# PERMANENT CLOSURE NOTICE

## FOR UNDERGROUND STORAGE TANKS

UST ID #: 9017  
 County: King

*This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360A WAC. Instructions are found on the back page.*

I. UST FACILITY	II. OWNER/OPERATOR INFORMATION
Facility Compliance Tag #: <u>Not Applicable</u>	Owner/Operator Name: <u>701 South Jackson Partners LLC</u>
UST ID #: <u>9017</u>	Business Name: <u>701 South Jackson Partners LLC</u>
Site Name: <u>Seventh Avenue Service</u>	Address: <u>159 South Jackson Street</u>
Site Address: <u>701 South Jackson Street</u>	City: <u>Seattle</u> State: <u>WA</u> Zip: <u>98104</u>
City: <u>Seattle</u>	Phone: <u>206-915-9702</u>
Phone: <u>206-915-9702</u>	Email: <u>robertt@housingdiversity.com</u>

III. CERTIFIED UST DECOMMISSIONER			
Company Name: <u>Tank Wise LLC</u>		Service Provider Name: <u>Seattle Oil Solution</u>	
Address: <u>5405 W Marginal Way SW</u>		Certification Type: <u>U2</u>	
City: <u>Seattle</u>	State: <u>WA</u>	Zip: <u>98106</u>	Cert. No.: <u>9408330-U2</u> Exp. Date: <u>6/15/2025</u>
Provider Phone: <u>206-937-3995</u>		Provider Email: <u>wtankwise@gmail.com office@hotlineheating.net</u>	
<i>Provider Signature:</i>		<i>Date:</i> <u>FEB 14<sup>TH</sup> 2024</u>	

IV. TANK INFORMATION						
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
T2	1,000 gallon	Gas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
T3	1,000 gallon	Waste Oil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
T4	1,000 gallon	Waste Oil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

V. REQUIRED SIGNATURE		
<i>Signature acknowledges UST(s) comply with UST regulation WAC 173-360A-0810 Permanent Closure Requirements.</i>		
2-16-24		Gary Van Cleave
Date	Signature of Tank Owner/Operator or Authorized Representative	Print or Type Name

**APPENDIX B**  
**Site Check/Site Assessment Checklists**



# SITE CHECK/SITE ASSESSMENT CHECKLIST FOR UNDERGROUND STORAGE TANKS

UST ID #: 9017

County: King

*This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360A WAC. Instructions are found on the last page.*

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:		Owner/Operator Name: <u>701 South Jackson Partners LLC</u>	
UST ID #: <u>FSID # 99187287</u>		Business Name: <u>701 South Jackson Partners LLC</u>	
Site Name: <u>Seventh Avenue Service</u>		Address: <u>159 South Jackson Street</u>	
Site Address: <u>701 South Jackson Street</u>		City: <u>Seattle</u>	State: <u>WA</u> Zip: <u>98104</u>
City: <u>Seattle</u>		Phone: <u>206-915-9702</u>	
Phone: <u>206-915-9702</u>		Email: <u>robertt@housingdiversity.com</u>	
III. CERTIFIED SITE ASSESSOR			
Service Provider Name: <u>Robert Trahan</u>		Company Name: <u>GeoEngineers</u>	
Cell Phone: <u>206.240.2300</u> Email: <u>rtrahan@geoengineers.com</u>		Address: <u>2101 4th Avenue</u>	
Certification #: <u>5242654</u>	Exp. Date: <u>Aug 2024</u>	City: <u>Seattle</u>	State: <u>WA</u> Zip: <u>98121</u>
IV. TANK INFORMATION			
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
<u>T2</u>	<u>4,000 gallon</u>	<u>Gasoline</u>	<u>8/8/2023</u>
<u>T3</u>	<u>1,100 gallon</u>	<u>Waste Oil</u>	<u>8/8/2023</u>
<u>T4</u>	<u>1,100 gallon</u>	<u>Waste Oil</u>	<u>8/8/2023</u>
V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)			
<input checked="" type="checkbox"/> Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).			
<input type="checkbox"/> Release investigation following a failed tank and/or line tightness test.			
<input type="checkbox"/> Release investigation following discovery of contaminated soil and/or groundwater.			
<input type="checkbox"/> Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.			
<input type="checkbox"/> UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).			
<input type="checkbox"/> Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.			
<input type="checkbox"/> Other (describe):			

## VI. CHECKLIST

**The site assessor must check each of the following items and include it in the report.  
Sections referenced below can be found in the Ecology publication  
*Guidance for Site Checks and Site Assessments for Underground Storage Tanks.***

	YES	NO	
1. The location of the UST site is shown on a vicinity map.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. A summary of UST system data is provided (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. The soils characteristics at the UST site are described. (Section 5.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is there any apparent groundwater in the tank excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. A brief description of the surrounding land use is provided. (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. The following items are provided in one or more sketches:			
• Location and ID number for all field samples collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• If applicable, groundwater samples are distinguished from soil samples	<input type="checkbox"/>	<input type="checkbox"/>	n/a
• Location of samples collected from stockpiled excavated soil	<input type="checkbox"/>	<input type="checkbox"/>	n/a
• Tank and piping locations and limits of excavation pit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Adjacent structures and streets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Approximate locations of any on-site and nearby utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	<input type="checkbox"/>	<input type="checkbox"/>	n/a
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## VII. REQUIRED SIGNATURES

*Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360A-0730 through 0750.*

**Robert Trahan**

  
 Signature of Certified Site Assessor

**8/8/2023**

Print or Type Name

Date

# SITE CHECK/SITE ASSESSMENT CHECKLIST

## FOR UNDERGROUND STORAGE TANKS

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### INSTRUCTIONS

This checklist must accompany the results of a Site Check Report, which is performed if a release of petroleum or other regulated substance is suspected. It is also required to accompany a Site Assessment Report, which is required following the permanent closure or “change-in-service” of an underground storage tank system. This form is required to be filled out whether or not contamination is found. This checklist is to be completed by the Site Assessor and submitted **within thirty days of completing** these activities to the following address:

Dept. of Ecology  
UST Section  
PO Box 47655  
Olympia, WA 98504-7655

- I./II. UST Facility and Owner/Operator Information:** Fill out these sections completely. If you do not know your UST ID number, include the facility compliance tag number.
- III. Service Provider Information:** It is the responsibility of the ICC-certified Site Assessor to ensure that sampling and documentation procedures are completed in accordance with Ecology’s *Guidance for Site Checks and Site Assessment for Underground Storage Tanks*.
- IV. Tank Information:** Use the same Tank identification numbers listed on the facility’s Business License which is based on the most recent UST Addendum on file with Ecology. List the last substance stored in each tank, the tank sizes and the date the site check or site assessment was completed.
- V. Required Signature:** The Site Assessor signature certifies these procedures were followed.

All confirmed releases must be reported to Ecology by the owner within 24 hours and by service providers within 72 hours of discovery. A Site Characterization Report must be submitted to Ecology within 90 days after confirming a release.

*Further questions? Please contact your regional office below and ask for a tank inspector to assist you.*

<b>Regional Office</b>	<b>Counties Served</b>
Central (509) 575-2490	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima
Eastern (509) 329-3400	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman
HQ (360) 407-7170	Federal facilities in Western Washington
Northwest (425) 649-7000	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom
Southwest (360) 407-6300	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum

*or find a complete list of UST inspectors at:*  
[www.ecy.wa.gov/programs/tcp/ust-lust/people.html](http://www.ecy.wa.gov/programs/tcp/ust-lust/people.html)



## **APPENDIX C**

### **Field Methods**

## **APPENDIX C FIELD PROGRAM**

### **Sample Collection and Handling**

Soil samples from Seventh Avenue Service Site (Site) located at 701 South Jackson Street, Seattle, Washington, were obtained using a clean nitrile-gloved hand and placed in a 4- or 8-oz. laboratory-prepared jar filled to minimize headspace. Gloves were changed between samples to prevent cross-contamination. United States Environmental Protection Agency (EPA) Method 5035 was used to obtain soil samples for chemical analysis of volatile organic compounds. The samples were placed in an iced cooler pending transport to the analytical laboratory.

Each sample that was submitted for analysis was identified by a unique sample designation that corresponded to its mapped sample location and elevation. Standard chain-of-custody procedures were followed in transporting the samples to the laboratory.

### **Field Screening of Soil Samples**

A representative from our staff performed field screening of soil samples obtained from the excavation. Field screening results are used as a general guideline to delineate areas with possible petroleum hydrocarbon concentrations. In addition, screening results are used to aid in the selection of soil samples for chemical analysis. The screening methods used include: (1) visual screening; (2) water sheen screening; and (3) headspace vapor screening.

Visual screening consists of inspecting the soil for stains indicative of petroleum hydrocarbons. Visual screening is generally more effective when hydrocarbons are heavier, such as motor oil, or when hydrocarbon concentrations are high. Water sheen screening and headspace vapor screening are more sensitive methods that have been effective in detecting contamination at concentrations less than regulatory cleanup levels. However, field screening results are site-specific. The effectiveness of field screening varies with temperature, moisture content, organic content, soil type and age of contaminant. The presence or absence of a sheen or headspace vapors does not necessarily indicate the presence or absence of petroleum hydrocarbons.

Water sheen screening involves placing soil in water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheen classifications are as follows:

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

Headspace vapor screening may identify volatile petroleum hydrocarbon compounds and involves placing a soil sample in a plastic sample bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a photoionization detector (PID) is inserted into the bag, and the PID then measures the concentration of volatile organic vapors present within the sample bag headspace. The PID measures photoionizable vapor concentrations in parts per million (ppm) and is calibrated to isobutylene. The PID is designed to quantify concentrations up to 15,000 ppm. A lower threshold of significance of 1 ppm was used in this application.

**APPENDIX D**  
**Chemical Analytical Program**

## **APPENDIX D CHEMICAL ANALYTICAL PROGRAM**

### **Analytical Methods**

Chain-of-custody procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory quality control records are included in this appendix. The analytical results are also summarized in the text and tables of this report.

### **Analytical Data Review**

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and no exceptions were noted in the laboratory report.

### **Analytical Data Review Summary**

No data quality issues were identified, and no data qualification was necessary.



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: S Jackson Street  
Work Order Number: 2306502**

July 05, 2023

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 1 sample(s) on 6/29/2023 for the analyses presented in the following report.

***Hydrocarbon Identification by NWTPH-HCID***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original

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**CLIENT:** GeoEngineers  
**Project:** S Jackson Street  
**Work Order:** 2306502

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## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2306502-001	UST-230629	06/29/2023 7:30 AM	06/29/2023 11:55 AM

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

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

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**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: **2306502**  
 Date Reported: **7/5/2023**

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2306502-001  
**Client Sample ID:** UST-230629

**Collection Date:** 6/29/2023 7:30:00 AM  
**Matrix:** Product

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Hydrocarbon Identification by NWTPH-HCID**

Batch ID: 40797      Analyst: AP

Gasoline	ND	566		mg/Kg	1	6/30/2023 4:50:04 PM
Mineral Spirits	ND	943		mg/Kg	1	6/30/2023 4:50:04 PM
Kerosene	ND	943		mg/Kg	1	6/30/2023 4:50:04 PM
Diesel (Fuel Oil)	DETECT	943		mg/Kg	1	6/30/2023 4:50:04 PM
Heavy Oil	ND	1,890		mg/Kg	1	6/30/2023 4:50:04 PM
Mineral Oil	ND	1,890		mg/Kg	1	6/30/2023 4:50:04 PM
Surr: 2-Fluorobiphenyl	69.9	50 - 150		%Rec	1	6/30/2023 4:50:04 PM
Surr: o-Terphenyl	76.0	50 - 150		%Rec	1	6/30/2023 4:50:04 PM

**Work Order:** 2306502  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Hydrocarbon Identification by NWTPH-HCID**

Sample ID: <b>MB-40797</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>6/29/2023</b>	RunNo: <b>85090</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>40797</b>		Analysis Date: <b>6/30/2023</b>	SeqNo: <b>1776250</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	30.0									
Mineral Spirits	ND	50.0									
Kerosene	ND	50.0									
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Mineral Oil	ND	100									
Surr: 2-Fluorobiphenyl	8.53		10.00		85.3	50	150				
Surr: o-Terphenyl	8.44		10.00		84.4	50	150				

Sample ID: <b>LCS-40797</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>6/29/2023</b>	RunNo: <b>85090</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>40797</b>		Analysis Date: <b>6/30/2023</b>	SeqNo: <b>1776251</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	458	50.0	500.0	0	91.6	74.5	125				
Surr: 2-Fluorobiphenyl	8.12		10.00		81.2	50	150				
Surr: o-Terphenyl	10.7		10.00		107	50	150				

Client Name: GEI	Work Order Number: 2306502
Logged by: Morgan Wilson	Date Received: 6/29/2023 11:55:00 AM

**Chain of Custody**

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

**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 \* Unknown prior to receipt. 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 holding times 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

**Item Information**

Item #	Temp °C
Sample	20.6

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



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

# Chain of Custody Record & Laboratory Services Agreement

Date: 6/29/23 Page: 1 of: 1

Project Name: S Jackson Street

Project No: 24504-001-01

Collected by: Paul Robinette

Location: Seattle, WA

Report To (PM): Robert Trahan

Laboratory Project No (Internal): 2306502

Special Remarks:

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
 Retain volume (specify above)  Return to client

Client: GeoEngineers  
 Address: 2101 4th Ave Ste 950  
 City, State, Zip: Seattle, WA 98121  
 Telephone: 425.861.2674  
 Email(s): rtrahan@geoengineers.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCS (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDB (801)	Comments
1 VST-230629	6/29/23	0730	P	1													X
2																	
3																	
4																	
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): MTCAs-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 Tl Ti V Zn

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

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) [Signature] Print Name Paul Robinette Date/Time 6/29/23 1555 Received (Signature) [Signature] Print Name Stephen Kofler Date/Time 6/29/23 1155



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: S Jackson Street**  
**Work Order Number: 2307040**

July 14, 2023

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 5 sample(s) on 7/6/2023 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)***  
***Sample Moisture (Percent Moisture)***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street  
**Work Order:** 2307040

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2307040-001	UST-N-86	07/06/2023 1:10 PM	07/06/2023 2:26 PM
2307040-002	UST-S-86	07/06/2023 1:25 PM	07/06/2023 2:26 PM
2307040-003	UST-E-86	07/06/2023 1:15 PM	07/06/2023 2:26 PM
2307040-004	UST-W-86	07/06/2023 1:20 PM	07/06/2023 2:26 PM
2307040-005	UST-B-83	07/06/2023 1:30 PM	07/06/2023 2:26 PM

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

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

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**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: 2307040  
Date Reported: 7/14/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2307040-001  
**Client Sample ID:** UST-N-86

**Collection Date:** 7/6/2023 1:10:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 40883 Analyst: AP

Diesel Range Organics	94.7	56.7		mg/Kg-dry	1	7/12/2023 3:21:34 PM
Heavy Oil	6,910	113		mg/Kg-dry	1	7/12/2023 3:21:34 PM
Total Petroleum Hydrocarbons	7,000	170		mg/Kg-dry	1	7/12/2023 3:21:34 PM
Surr: 2-Fluorobiphenyl	105	50 - 150		%Rec	1	7/12/2023 3:21:34 PM
Surr: o-Terphenyl	115	50 - 150		%Rec	1	7/12/2023 3:21:34 PM

**NOTES:**

Chromatographic pattern indicates the presence of two overlapping products, divided into diesel and oil ranges

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 40884 Analyst: SH

Naphthalene	ND	23.0		µg/Kg-dry	1	7/12/2023 4:51:33 PM
2-Methylnaphthalene	ND	23.0		µg/Kg-dry	1	7/12/2023 4:51:33 PM
1-Methylnaphthalene	ND	23.0		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Benz(a)anthracene	ND	23.0		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Chrysene	ND	23.0		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Benzo(b)fluoranthene	ND	28.7		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Benzo(k)fluoranthene	ND	28.7		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Benzo(a)pyrene	ND	34.4		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Indeno(1,2,3-cd)pyrene	ND	45.9		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Dibenz(a,h)anthracene	ND	57.4		µg/Kg-dry	1	7/12/2023 4:51:33 PM
Surr: 2-Fluorobiphenyl	88.4	22.2 - 146		%Rec	1	7/12/2023 4:51:33 PM
Surr: Terphenyl-d14 (surr)	112	20.2 - 159		%Rec	1	7/12/2023 4:51:33 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 40900 Analyst: KJ

Benzene	ND	0.0173		mg/Kg-dry	1	7/13/2023 3:56:46 PM
Toluene	ND	0.0297		mg/Kg-dry	1	7/13/2023 3:56:46 PM
Ethylbenzene	ND	0.0247		mg/Kg-dry	1	7/13/2023 3:56:46 PM
m,p-Xylene	ND	0.0494		mg/Kg-dry	1	7/13/2023 3:56:46 PM
o-Xylene	ND	0.0247		mg/Kg-dry	1	7/13/2023 3:56:46 PM
Surr: Dibromofluoromethane	109	79.5 - 124		%Rec	1	7/13/2023 3:56:46 PM
Surr: Toluene-d8	105	77.5 - 124		%Rec	1	7/13/2023 3:56:46 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	60.5 - 139		%Rec	1	7/13/2023 3:56:46 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R85231 Analyst: MP

Percent Moisture	14.2	0.500		wt%	1	7/12/2023 8:19:45 AM
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# Analytical Report

Work Order: 2307040  
Date Reported: 7/14/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2307040-003  
**Client Sample ID:** UST-E-86

**Collection Date:** 7/6/2023 1:15:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 40883 Analyst: AP

Diesel Range Organics	ND	62.6		mg/Kg-dry	1	7/12/2023 3:10:40 PM
Heavy Oil	ND	125		mg/Kg-dry	1	7/12/2023 3:10:40 PM
Total Petroleum Hydrocarbons	ND	188		mg/Kg-dry	1	7/12/2023 3:10:40 PM
Surr: 2-Fluorobiphenyl	107	50 - 150		%Rec	1	7/12/2023 3:10:40 PM
Surr: o-Terphenyl	113	50 - 150		%Rec	1	7/12/2023 3:10:40 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 40884 Analyst: SH

Naphthalene	ND	25.5		µg/Kg-dry	1	7/12/2023 5:20:02 PM
2-Methylnaphthalene	ND	25.5		µg/Kg-dry	1	7/12/2023 5:20:02 PM
1-Methylnaphthalene	ND	25.5		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Benz(a)anthracene	ND	25.5		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Chrysene	ND	25.5		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Benzo(b)fluoranthene	ND	31.9		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Benzo(k)fluoranthene	ND	31.9		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Benzo(a)pyrene	ND	38.2		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Indeno(1,2,3-cd)pyrene	ND	51.0		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Dibenz(a,h)anthracene	ND	63.7		µg/Kg-dry	1	7/12/2023 5:20:02 PM
Surr: 2-Fluorobiphenyl	87.8	22.2 - 146		%Rec	1	7/12/2023 5:20:02 PM
Surr: Terphenyl-d14 (surr)	111	20.2 - 159		%Rec	1	7/12/2023 5:20:02 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 40900 Analyst: KJ

Benzene	ND	0.0196		mg/Kg-dry	1	7/13/2023 2:56:31 PM
Toluene	ND	0.0336		mg/Kg-dry	1	7/13/2023 2:56:31 PM
Ethylbenzene	ND	0.0280		mg/Kg-dry	1	7/13/2023 2:56:31 PM
m,p-Xylene	ND	0.0560		mg/Kg-dry	1	7/13/2023 2:56:31 PM
o-Xylene	ND	0.0280		mg/Kg-dry	1	7/13/2023 2:56:31 PM
Surr: Dibromofluoromethane	97.7	79.5 - 124		%Rec	1	7/13/2023 2:56:31 PM
Surr: Toluene-d8	104	77.5 - 124		%Rec	1	7/13/2023 2:56:31 PM
Surr: 1-Bromo-4-fluorobenzene	99.8	60.5 - 139		%Rec	1	7/13/2023 2:56:31 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R85231 Analyst: MP

Percent Moisture	24.8	0.500		wt%	1	7/12/2023 8:19:45 AM
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# Analytical Report

Work Order: 2307040  
Date Reported: 7/14/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2307040-005  
**Client Sample ID:** UST-B-83

**Collection Date:** 7/6/2023 1:30:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 40883      Analyst: AP

Diesel Range Organics	ND	50.2		mg/Kg-dry	1	7/12/2023 3:43:39 PM
Heavy Oil	2,900	100		mg/Kg-dry	1	7/12/2023 3:43:39 PM
Total Petroleum Hydrocarbons	2,900	151		mg/Kg-dry	1	7/12/2023 3:43:39 PM
Surr: 2-Fluorobiphenyl	135	50 - 150		%Rec	1	7/12/2023 3:43:39 PM
Surr: o-Terphenyl	146	50 - 150		%Rec	1	7/12/2023 3:43:39 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 40884      Analyst: SH

Naphthalene	ND	20.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
2-Methylnaphthalene	38.4	20.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
1-Methylnaphthalene	26.2	20.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Benz(a)anthracene	ND	20.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Chrysene	ND	20.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Benzo(b)fluoranthene	ND	25.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Benzo(k)fluoranthene	ND	25.2		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Benzo(a)pyrene	ND	30.3		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Indeno(1,2,3-cd)pyrene	ND	40.3		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Dibenz(a,h)anthracene	ND	50.4		µg/Kg-dry	1	7/12/2023 5:48:22 PM
Surr: 2-Fluorobiphenyl	91.2	22.2 - 146		%Rec	1	7/12/2023 5:48:22 PM
Surr: Terphenyl-d14 (surr)	124	20.2 - 159		%Rec	1	7/12/2023 5:48:22 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 40900      Analyst: KJ

Benzene	ND	0.0200		mg/Kg-dry	1	7/13/2023 3:26:40 PM
Toluene	ND	0.0343		mg/Kg-dry	1	7/13/2023 3:26:40 PM
Ethylbenzene	ND	0.0286		mg/Kg-dry	1	7/13/2023 3:26:40 PM
m,p-Xylene	ND	0.0572		mg/Kg-dry	1	7/13/2023 3:26:40 PM
o-Xylene	ND	0.0286		mg/Kg-dry	1	7/13/2023 3:26:40 PM
Surr: Dibromofluoromethane	107	79.5 - 124		%Rec	1	7/13/2023 3:26:40 PM
Surr: Toluene-d8	103	77.5 - 124		%Rec	1	7/13/2023 3:26:40 PM
Surr: 1-Bromo-4-fluorobenzene	102	60.5 - 139		%Rec	1	7/13/2023 3:26:40 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R85231      Analyst: MP

Percent Moisture	6.10	0.500		wt%	1	7/12/2023 8:19:45 AM
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**Work Order:** 2307040  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>MB-40883</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/12/2023</b>		RunNo: <b>85244</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>40883</b>				Analysis Date: <b>7/12/2023</b>		SeqNo: <b>1778999</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	11.2		10.00		112	50	150				
Surr: o-Terphenyl	11.9		10.00		119	50	150				

Sample ID: <b>LCS-40883</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/12/2023</b>		RunNo: <b>85244</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>40883</b>				Analysis Date: <b>7/12/2023</b>		SeqNo: <b>1779000</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	615	150	500.0	0	123	76.8	124				
Surr: 2-Fluorobiphenyl	12.5		10.00		125	50	150				
Surr: o-Terphenyl	14.5		10.00		145	50	150				

Sample ID: <b>2307109-001AMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>7/12/2023</b>		RunNo: <b>85244</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>40883</b>				Analysis Date: <b>7/12/2023</b>		SeqNo: <b>1779002</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	574	166	553.7	0	104	21.8	165				
Surr: 2-Fluorobiphenyl	12.3		11.07		111	50	150				
Surr: o-Terphenyl	15.0		11.07		136	50	150				

Sample ID: <b>2307109-001AMSD</b>		SampType: <b>MSD</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>7/12/2023</b>		RunNo: <b>85244</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>40883</b>				Analysis Date: <b>7/12/2023</b>		SeqNo: <b>1779003</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	606	166	554.8	0	109	21.8	165	574.1	5.45	30	
Surr: 2-Fluorobiphenyl	12.0		11.10		108	50	150		0		
Surr: o-Terphenyl	15.3		11.10		138	50	150		0		

**Work Order:** 2307040  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID: <b>2307109-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>7/12/2023</b>	RunNo: <b>85244</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>40883</b>		Analysis Date: <b>7/12/2023</b>	SeqNo: <b>1779005</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics	ND	51.9						0		30	
Heavy Oil	ND	104						0		30	
Total Petroleum Hydrocarbons	ND	156						0		30	
Surr: 2-Fluorobiphenyl	10.8		10.37		104	50	150		0		
Surr: o-Terphenyl	11.7		10.37		113	50	150		0		

**Work Order:** 2307040  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>MB-40884</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/12/2023</b>	RunNo: <b>85290</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>40884</b>		Analysis Date: <b>7/12/2023</b>	SeqNo: <b>1779723</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Benz(a)anthracene	ND	20.0									
Chrysene	ND	20.0									
Benzo(b)fluoranthene	ND	25.0									
Benzo(k)fluoranthene	ND	25.0									
Benzo(a)pyrene	ND	30.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	50.0									
Surr: 2-Fluorobiphenyl	955		1,000		95.5	22.2	146				
Surr: Terphenyl-d14 (surr)	1,170		1,000		117	20.2	159				

Sample ID: <b>LCS-40884</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/12/2023</b>	RunNo: <b>85290</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>40884</b>		Analysis Date: <b>7/12/2023</b>	SeqNo: <b>1779724</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,920	20.0	2,000	0	95.8	59.3	114				
2-Methylnaphthalene	1,790	20.0	2,000	0	89.6	55.5	115				
1-Methylnaphthalene	1,810	20.0	2,000	0	90.5	57.2	116				
Benz(a)anthracene	1,950	20.0	2,000	0	97.6	59.5	123				
Chrysene	1,910	20.0	2,000	0	95.3	51.5	115				
Benzo(b)fluoranthene	1,840	25.0	2,000	0	92.1	50	122				
Benzo(k)fluoranthene	1,950	25.0	2,000	0	97.4	51	117				
Benzo(a)pyrene	2,090	30.0	2,000	0	105	53.2	123				
Indeno(1,2,3-cd)pyrene	1,760	40.0	2,000	0	87.8	49.5	122				
Dibenz(a,h)anthracene	1,790	50.0	2,000	0	89.6	51	120				
Surr: 2-Fluorobiphenyl	1,010		1,000		101	22.2	146				
Surr: Terphenyl-d14 (surr)	1,190		1,000		119	20.2	159				

**Work Order:** 2307040  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>2307040-005AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>7/12/2023</b>	RunNo: <b>85290</b>							
Client ID: <b>UST-B-83</b>	Batch ID: <b>40884</b>	Analysis Date: <b>7/12/2023</b>	SeqNo: <b>1779728</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,970	20.2	2,025	9.828	96.8	44	114				
2-Methylnaphthalene	1,890	20.2	2,025	38.37	91.6	46.9	106				
1-Methylnaphthalene	1,890	20.2	2,025	26.25	92.2	47.3	109				
Benz(a)anthracene	2,320	20.2	2,025	8.793	114	41.7	126				
Chrysene	1,820	20.2	2,025	0	90.0	40.4	108				
Benzo(b)fluoranthene	2,020	25.3	2,025	0	99.6	30.9	124				
Benzo(k)fluoranthene	1,930	25.3	2,025	0	95.3	32.8	115				
Benzo(a)pyrene	2,180	30.4	2,025	0	108	25.9	129				
Indeno(1,2,3-cd)pyrene	1,730	40.5	2,025	0	85.2	14.3	126				
Dibenz(a,h)anthracene	1,730	50.6	2,025	0	85.3	18.6	121				
Surr: 2-Fluorobiphenyl	1,050		1,012		104	22.2	146				
Surr: Terphenyl-d14 (surr)	1,250		1,012		124	20.2	159				

Sample ID: <b>2307040-005AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>7/12/2023</b>	RunNo: <b>85290</b>							
Client ID: <b>UST-B-83</b>	Batch ID: <b>40884</b>	Analysis Date: <b>7/12/2023</b>	SeqNo: <b>1779729</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,020	20.2	2,025	9.828	99.4	44	114	1,969	2.68	30	
2-Methylnaphthalene	1,950	20.2	2,025	38.37	94.7	46.9	106	1,893	3.23	30	
1-Methylnaphthalene	1,950	20.2	2,025	26.25	94.8	47.3	109	1,893	2.73	30	
Benz(a)anthracene	2,340	20.2	2,025	8.793	115	41.7	126	2,321	0.849	30	
Chrysene	1,850	20.2	2,025	0	91.2	40.4	108	1,823	1.33	30	
Benzo(b)fluoranthene	2,080	25.3	2,025	0	102	30.9	124	2,016	2.91	30	
Benzo(k)fluoranthene	1,960	25.3	2,025	0	96.7	32.8	115	1,929	1.46	30	
Benzo(a)pyrene	2,240	30.4	2,025	0	110	25.9	129	2,185	2.34	30	
Indeno(1,2,3-cd)pyrene	1,720	40.5	2,025	0	84.9	14.3	126	1,726	0.372	30	
Dibenz(a,h)anthracene	1,740	50.6	2,025	0	85.7	18.6	121	1,727	0.492	30	
Surr: 2-Fluorobiphenyl	1,020		1,012		100	22.2	146		0		
Surr: Terphenyl-d14 (surr)	1,220		1,012		120	20.2	159		0		



**Work Order:** 2307040  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>LCS-40900</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>7/13/2023</b>		RunNo: <b>85295</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>40900</b>				Analysis Date: <b>7/13/2023</b>		SeqNo: <b>1779779</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.894	0.0175	1.000	0	89.4	80	120				
Toluene	0.975	0.0300	1.000	0	97.5	80	120				
Ethylbenzene	0.968	0.0250	1.000	0	96.8	80	120				
m,p-Xylene	1.95	0.0500	2.000	0	97.4	80	120				
o-Xylene	0.963	0.0250	1.000	0	96.3	80	120				
Surr: Dibromofluoromethane	1.33		1.250		106	79.5	124				
Surr: Toluene-d8	1.26		1.250		100	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.6	60.5	139				

Sample ID: <b>MB-40900</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/13/2023</b>		RunNo: <b>85295</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>40900</b>				Analysis Date: <b>7/13/2023</b>		SeqNo: <b>1779772</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0175									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.25		1.250		99.7	79.5	124				
Surr: Toluene-d8	1.28		1.250		102	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.16		1.250		92.9	60.5	139				

Sample ID: <b>2307139-002BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>7/13/2023</b>		RunNo: <b>85295</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>40900</b>				Analysis Date: <b>7/13/2023</b>		SeqNo: <b>1779774</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.321						0		30	D
Toluene	ND	0.551						0		30	D
Ethylbenzene	ND	0.459						0		30	D
m,p-Xylene	ND	0.918						0		30	D
o-Xylene	ND	0.459						0		30	D

**Work Order:** 2307040  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2307139-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>7/13/2023</b>	RunNo: <b>85295</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>40900</b>	Analysis Date: <b>7/13/2023</b>	SeqNo: <b>1779774</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	22.3		22.94		97.4	79.5	124		0		D
Surr: Toluene-d8	23.5		22.94		102	77.5	124		0		D
Surr: 1-Bromo-4-fluorobenzene	22.3		22.94		97.4	60.5	139		0		D

Sample ID: <b>2307040-003BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>7/13/2023</b>	RunNo: <b>85295</b>							
Client ID: <b>UST-E-86</b>	Batch ID: <b>40900</b>	Analysis Date: <b>7/13/2023</b>	SeqNo: <b>1779778</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.17	0.0196	1.121	0	104	52.3	147				
Toluene	1.05	0.0336	1.121	0	93.6	50.1	147				
Ethylbenzene	0.979	0.0280	1.121	0	87.4	51.7	143				
m,p-Xylene	1.97	0.0560	2.241	0	87.9	54.5	144				
o-Xylene	0.978	0.0280	1.121	0	87.3	57.1	141				
Surr: Dibromofluoromethane	1.46		1.401		104	79.5	124				
Surr: Toluene-d8	1.46		1.401		104	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.37		1.401		98.0	60.5	139				

Client Name: GEI	Work Order Number: 2307040
Logged by: Morgan Wilson	Date Received: 7/6/2023 2:26:00 PM

**Chain of Custody**

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

**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 \* Unknown prior to receipt. 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 holding times 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

**Item Information**

Item #	Temp °C
Sample	26.6

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





# Fremont

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

## Chain of Custody Record & Laboratory Services Agreement

Date: \_\_\_\_\_ Page: \_\_\_\_\_ of: \_\_\_\_\_

Laboratory Project No (Internal): **2307040**

Project Name: **S Jackson Street**

Special Remarks: **HOLD FOR TEST ASSEMBLY BY RM**

Project No: **24504-001-01**

Collected by: **Paul Robinette**

Location: **Seattle, WA**

Report To (PM): **Robert Trahan**

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
 Retain volume (specify above)  Return to client

Client: **GeoEngineers**

Address: **2101 4th Ave Ste 950**

City, State, Zip: **Seattle, WA 98121**

Telephone: **425.861.2674**

Email(s): **rtrahan@geoengineers.com**

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	Analytes												Comments	
					VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (Ox)	SVOCs (EPA 8270 / 625)	CPAHs and Naphthalenes 8270SIM	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)**	EDB (8011)		
1 UST-N-86	7/6/23	1310	S	3	X		X	X										Updated 7/10 by RST
2 UST-S-86		1325		3														
3 UST-E-86		1315		3	X		X	X										
4 UST-W-86		1320		3														
5 UST-B-83		1330		3	X		X	X										
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 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) *[Signature]* Print Name **Paul Robinette** Date/Time **7/6/23 1320**

Relinquished (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_

Received (Signature) *[Signature]* Print Name **Erin Tucker** Date/Time **7/6/23 14:26**

Received (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_



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: S Jackson Street**  
**Work Order Number: 2308021**

August 11, 2023

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 1 sample(s) on 8/2/2023 for the analyses presented in the following report.

***Gasoline by NWTPH-Gx***  
***Hydrocarbon Identification by NWTPH-HCID***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Revision v1

[www.fremontanalytical.com](http://www.fremontanalytical.com)



Date: 08/11/2023

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**CLIENT:** GeoEngineers  
**Project:** S Jackson Street  
**Work Order:** 2308021

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308021-001	UST-2-230802	08/02/2023 10:40 AM	08/02/2023 11:19 AM

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

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

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### 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.

8/11/23 - Revision 1 includes an updated client Sample ID and additional analyses per client request.



### 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: 2308021  
Date Reported: 8/11/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308021-001  
**Client Sample ID:** UST-2-230802

**Collection Date:** 8/2/2023 10:40:00 AM  
**Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Hydrocarbon Identification by NWTPH-HCID**

Batch ID: 41123 Analyst: AP

Gasoline	ND	2,410		µg/L	1	8/9/2023 12:31:26 PM
Gasoline Range Organics	DETECT	2,410			1	8/9/2023 12:31:26 PM
Mineral Spirits	ND	2,410		µg/L	1	8/9/2023 12:31:26 PM
Kerosene	ND	2,410		µg/L	1	8/9/2023 12:31:26 PM
Diesel (Fuel Oil)	NON-DETECT	2,410		µg/L	1	8/9/2023 12:31:26 PM
Diesel Range Organics (C12-C24)	DETECT	2,410		µg/L	1	8/9/2023 12:31:26 PM
Heavy Oil	ND	4,810		µg/L	1	8/9/2023 12:31:26 PM
Mineral Oil	ND	4,810		µg/L	1	8/9/2023 12:31:26 PM
Surr: 2-Fluorobiphenyl	182	50 - 150	S	%Rec	1	8/9/2023 12:31:26 PM
Surr: o-Terphenyl	91.8	50 - 150		%Rec	1	8/9/2023 12:31:26 PM

**NOTES:**

S - Outlying surrogate recovery attributed to TPH interference.

**Gasoline by NWTPH-Gx**

Batch ID: 41056 Analyst: KJ

Gasoline Range Organics	128,000	10,000	D	µg/L	200	8/3/2023 11:44:19 AM
Surr: Toluene-d8	97.6	65 - 135	D	%Rec	200	8/3/2023 11:44:19 AM
Surr: 4-Bromofluorobenzene	104	65 - 135	D	%Rec	200	8/3/2023 11:44:19 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41056 Analyst: KJ

Benzene	14,100	440	D	µg/L	1000	8/3/2023 11:14:07 AM
Toluene	13,400	1,000	D	µg/L	1000	8/3/2023 11:14:07 AM
Ethylbenzene	993	40.0	D	µg/L	100	8/3/2023 9:46:01 AM
m,p-Xylene	3,810	100	D	µg/L	100	8/3/2023 9:46:01 AM
o-Xylene	1,680	50.0	D	µg/L	100	8/3/2023 9:46:01 AM
Surr: Dibromofluoromethane	124	80 - 120	DS	%Rec	100	8/3/2023 9:46:01 AM
Surr: Toluene-d8	109	80 - 120	D	%Rec	100	8/3/2023 9:46:01 AM
Surr: 1-Bromo-4-fluorobenzene	106	80 - 120	D	%Rec	100	8/3/2023 9:46:01 AM

**NOTES:**

S - Outlying surrogate recovery(ies) observed (high bias). Outlying surrogate is not associated with reported analytes.

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Hydrocarbon Identification by NWTPH-HCID**

Sample ID: <b>DX-CCV-41152A</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/8/2023</b>		RunNo: <b>85849</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41123</b>				Analysis Date: <b>8/8/2023</b>		SeqNo: <b>1791502</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	477	250	500.0	0	95.3	80	120				
Surr: 2-Fluorobiphenyl	9.86		10.00		98.6	50	150				
Surr: o-Terphenyl	12.6		10.00		126	50	150				

Sample ID: <b>MB-41123</b>		SampType: <b>MBLK</b>		Units: <b>µg/L</b>		Prep Date: <b>8/7/2023</b>		RunNo: <b>85849</b>			
Client ID: <b>MBLKW</b>		Batch ID: <b>41123</b>				Analysis Date: <b>8/8/2023</b>		SeqNo: <b>1791503</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	238									
Mineral Spirits	ND	238									
Kerosene	ND	238									
Diesel (Fuel Oil)	ND	238									
Heavy Oil	ND	476									
Mineral Oil	ND	476									
Surr: 2-Fluorobiphenyl	20.0		23.78		84.1	50	150				
Surr: o-Terphenyl	21.2		23.78		89.3	50	150				

Sample ID: <b>LCS-41123</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>8/7/2023</b>		RunNo: <b>85849</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>41123</b>				Analysis Date: <b>8/8/2023</b>		SeqNo: <b>1791504</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	878	234	1,171	0	75.0	45.7	115				
Surr: 2-Fluorobiphenyl	19.8		23.41		84.6	50	150				
Surr: o-Terphenyl	21.6		23.41		92.3	50	150				

Sample ID: <b>LCS-41123</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>8/7/2023</b>		RunNo: <b>85849</b>			
Client ID: <b>LCSW02</b>		Batch ID: <b>41123</b>				Analysis Date: <b>8/8/2023</b>		SeqNo: <b>1791505</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	960	235	1,173	0	81.9	45.7	115	878.4	8.87	30	

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>LCSD-41123</b>	SampType: <b>LCSD</b>	Units: <b>µg/L</b>	Prep Date: <b>8/7/2023</b>	RunNo: <b>85849</b>							
Client ID: <b>LCSW02</b>	Batch ID: <b>41123</b>		Analysis Date: <b>8/8/2023</b>	SeqNo: <b>1791505</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	23.2		23.45		99.1	50	150		0	
Surr: o-Terphenyl	27.0		23.45		115	50	150		0	

Sample ID: <b>DX-CCV-41152C</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/9/2023</b>	RunNo: <b>85849</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41123</b>		Analysis Date: <b>8/9/2023</b>	SeqNo: <b>1791509</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	470	250	500.0	0	94.0	80	120			
Surr: 2-Fluorobiphenyl	10.9		10.00		109	50	150			
Surr: o-Terphenyl	12.5		10.00		125	50	150			

Sample ID: <b>DX-CCV-41152D</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/9/2023</b>	RunNo: <b>85849</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41123</b>		Analysis Date: <b>8/9/2023</b>	SeqNo: <b>1791512</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	480	250	500.0	0	96.0	80	120			
Surr: 2-Fluorobiphenyl	11.1		10.00		111	50	150			
Surr: o-Terphenyl	12.8		10.00		128	50	150			

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Gasoline by NWTPH-Gx

Sample ID: <b>GX 85465 MIDPOINT</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>7/22/2023</b>		RunNo: <b>85697</b>			
Client ID: <b>CCV</b>		Batch ID: <b>R85697</b>				Analysis Date: <b>7/22/2023</b>		SeqNo: <b>1788173</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	522	50.0	500.0	0	104	80	120				
Surr: Toluene-d8	25.2		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	24.8		25.00		99.4	65	135				

Sample ID: <b>GX ICB</b>		SampType: <b>ICB</b>		Units: <b>µg/L</b>		Prep Date: <b>7/22/2023</b>		RunNo: <b>85465</b>			
Client ID: <b>ICB</b>		Batch ID: <b>R85465</b>				Analysis Date: <b>7/22/2023</b>		SeqNo: <b>1783152</b>			
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	24.5		25.00		97.9	65	135				
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135				

Sample ID: <b>GX ICV</b>		SampType: <b>ICV</b>		Units: <b>µg/L</b>		Prep Date: <b>7/22/2023</b>		RunNo: <b>85465</b>			
Client ID: <b>ICV</b>		Batch ID: <b>R85465</b>				Analysis Date: <b>7/22/2023</b>		SeqNo: <b>1783153</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	617	50.0	500.0	0	123	70	130				
Surr: Toluene-d8	25.0		25.00		100	65	135				
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135				

Sample ID: <b>LCS-41056</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85697</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41056</b>				Analysis Date: <b>8/2/2023</b>		SeqNo: <b>1788174</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	457	50.0	500.0	0	91.4	80	120				
Surr: Toluene-d8	24.6		25.00		98.4	65	135				
Surr: 4-Bromofluorobenzene	25.2		25.00		101	65	135				

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Gasoline by NWTPH-Gx

Sample ID: <b>GX-CCV-85697A</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85697</b>			
Client ID: <b>CCV</b>		Batch ID: <b>R85697</b>				Analysis Date: <b>8/2/2023</b>		SeqNo: <b>1788171</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	457	50.0	500.0	0	91.4	80	120				
Surr: Toluene-d8	24.6		25.00		98.4	65	135				
Surr: 4-Bromofluorobenzene	25.2		25.00		101	65	135				

Sample ID: <b>MB-41056</b>		SampType: <b>MBLK</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85697</b>			
Client ID: <b>MBLKW</b>		Batch ID: <b>41056</b>				Analysis Date: <b>8/2/2023</b>		SeqNo: <b>1788172</b>			
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	24.5		25.00		97.9	65	135				
Surr: 4-Bromofluorobenzene	24.4		25.00		97.8	65	135				

Sample ID: <b>2308021-001ADUP</b>		SampType: <b>DUP</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85697</b>			
Client ID: <b>UST-2-230802</b>		Batch ID: <b>41056</b>				Analysis Date: <b>8/3/2023</b>		SeqNo: <b>1788167</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	60,600	50.0						55,350	9.00	30	E
Surr: Toluene-d8	32.4		25.00		130	65	135		0		
Surr: 4-Bromofluorobenzene	28.2		25.00		113	65	135		0		

Sample ID: <b>GX-CCV-85697B</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/3/2023</b>		RunNo: <b>85697</b>			
Client ID: <b>CCV</b>		Batch ID: <b>R85697</b>				Analysis Date: <b>8/3/2023</b>		SeqNo: <b>1788170</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	732	50.0	500.0	0	146	80	120				S
Surr: Toluene-d8	25.0		25.00		99.9	65	135				
Surr: 4-Bromofluorobenzene	26.2		25.00		105	65	135				

**NOTES:**

S - Outlying spike recovery observed (high bias). Samples are non-detect/non-reporting; result meets QC requirements.

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>GX-CCV-85697C</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/3/2023</b>	RunNo: <b>85697</b>							
Client ID: <b>CCV</b>	Batch ID: <b>R85697</b>		Analysis Date: <b>8/3/2023</b>	SeqNo: <b>1788168</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	401	50.0	500.0	0	80.2	80	120				
Surr: Toluene-d8	24.4		25.00		97.6	65	135				
Surr: 4-Bromofluorobenzene	26.5		25.00		106	65	135				

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-41056</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85683</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>41056</b>				Analysis Date: <b>8/2/2023</b>		SeqNo: <b>1788032</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.6	0.440	20.00	0	103	80	120				
Toluene	21.1	1.00	20.00	0	105	80	120				
Ethylbenzene	20.0	0.400	20.00	0	99.8	80	120				
m,p-Xylene	39.5	1.00	40.00	0	98.6	80	120				
o-Xylene	19.8	0.500	20.00	0	98.8	80	120				
Surr: Dibromofluoromethane	29.6		25.00		118	80	120				
Surr: Toluene-d8	26.5		25.00		106	80	120				
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	80	120				

Sample ID: <b>VOC-CCV-85683A</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85683</b>			
Client ID: <b>CCV</b>		Batch ID: <b>R85683</b>				Analysis Date: <b>8/2/2023</b>		SeqNo: <b>1787833</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.6	0.440	20.00	0	103	80	120				
Toluene	21.1	1.00	20.00	0	105	80	120				
Ethylbenzene	20.0	0.400	20.00	0	99.8	80	120				
m,p-Xylene	39.5	1.00	40.00	0	98.6	80	120				
o-Xylene	19.8	0.500	20.00	0	98.8	80	120				
Surr: Dibromofluoromethane	29.6		25.00		118	80	120				
Surr: Toluene-d8	26.5		25.00		106	80	120				
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	80	120				

Sample ID: <b>MB-41056</b>		SampType: <b>MBLK</b>		Units: <b>µg/L</b>		Prep Date: <b>8/2/2023</b>		RunNo: <b>85683</b>			
Client ID: <b>MBLKW</b>		Batch ID: <b>41056</b>				Analysis Date: <b>8/2/2023</b>		SeqNo: <b>1788030</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440									
Toluene	ND	1.00									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									



**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>MB-41056</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>8/2/2023</b>	RunNo: <b>85683</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>41056</b>		Analysis Date: <b>8/2/2023</b>	SeqNo: <b>1788030</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	27.5		25.00		110	80	120				
Surr: Toluene-d8	26.8		25.00		107	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	80	120				

Sample ID: <b>2308021-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>8/2/2023</b>	RunNo: <b>85683</b>							
Client ID: <b>UST-2-230802</b>	Batch ID: <b>41056</b>		Analysis Date: <b>8/3/2023</b>	SeqNo: <b>1788029</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	815	0.440						14,130	178	30	RE
Toluene	1,080	1.00						13,350	170	30	RE
Ethylbenzene	263	0.400						1,043	119	30	RE
m,p-Xylene	730	1.00						3,946	138	30	RE
o-Xylene	524	0.500						1,734	107	30	RE
Surr: Dibromofluoromethane	30.6		25.00		122	80	120		0		S
Surr: Toluene-d8	35.4		25.00		142	80	120		0		S
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	80	120		0		

**NOTES:**

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

R,E - High RPD due to high analyte concentration. In this range, high RPD's may be expected.

Sample ID: <b>VOC-CCV-85683B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/3/2023</b>	RunNo: <b>85683</b>							
Client ID: <b>CCV</b>	Batch ID: <b>R85683</b>		Analysis Date: <b>8/3/2023</b>	SeqNo: <b>1788031</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.6	0.440	20.00	0	113	80	120				
Toluene	22.3	1.00	20.00	0	111	80	120				
Ethylbenzene	19.8	0.400	20.00	0	98.9	80	120				
m,p-Xylene	39.6	1.00	40.00	0	99.1	80	120				
o-Xylene	19.4	0.500	20.00	0	96.9	80	120				
Surr: Dibromofluoromethane	31.2		25.00		125	80	120				S
Surr: Toluene-d8	27.7		25.00		111	80	120				
Surr: 1-Bromo-4-fluorobenzene	26.5		25.00		106	80	120				

**Work Order:** 2308021  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>VOC-CCV-85683B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/3/2023</b>	RunNo: <b>85683</b>							
Client ID: <b>CCV</b>	Batch ID: <b>R85683</b>		Analysis Date: <b>8/3/2023</b>	SeqNo: <b>1788031</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

S - Outlying surrogate recovery(ies) observed (high bias). Outlying surrogate is not associated with reported analytes.

Client Name: GEI

Work Order Number: 2308021

Logged by: Morgan Wilson

Date Received: 8/2/2023 11:19:00 AM

### **Chain of Custody**

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

### **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 holding times 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

### **Item Information**

Item #	Temp °C
Sample	21.4

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



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

# Chain of Custody Record & Laboratory Services Agreement

**Client:** GeoEngineers  
**Address:** 2101 4th Ave Ste 950  
**City, State, Zip:** Seattle, WA 98121  
**Telephone:** 425.861.2674  
**Email(s):** rtrahan@geoengineers.com

**Date:** 8/2/23 **Page:** 1 of 1  
**Project Name:** S Jackson Street  
**Project No.:** 24504-001-01  
**Collected by:** Paul Robinette  
**Location:** Seattle, WA  
**Report To (PM):** Robert Trahan

**Laboratory Project No (Internal):** 230802-1  
**Special Remarks:** 25 REPAIR AREA  
**Disposal:**  Samples will be disposed in 30 days unless otherwise requested.  
 Retain volume (Specify above)  Return to client

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HClD)	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)	Comments
1	UST-1-230802	8/2/23	1840 P	3													
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

**Matrix:** A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SI = 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

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):** [Signature] **Print Name:** Paul Robinson **Date/Time:** 8/2/23 11:19  
**Received (Signature):** [Signature] **Print Name:** Emma Truck **Date/Time:** 8/2/23 11:19

**Turn-around Time:**  
 Standard Next Day  
 3 Day  
 Same Day  
 2 Day (specify) \_\_\_\_\_





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: S Jackson Street  
Work Order Number: 2308065**

August 08, 2023

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 1 sample(s) on 8/4/2023 for the analyses presented in the following report.

***Hydrocarbon Identification by NWTPH-HCID***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 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: 08/08/2023

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**CLIENT:** GeoEngineers  
**Project:** S Jackson Street  
**Work Order:** 2308065

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## Work Order Sample Summary

---

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308065-001	UST-3-230804	08/04/2023 9:45 AM	08/04/2023 10:22 AM

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

---

Original

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

---

**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: **2308065**  
 Date Reported: **8/8/2023**

**Client:** GeoEngineers

**Collection Date:** 8/4/2023 9:45:00 AM

**Project:** S Jackson Street

**Lab ID:** 2308065-001

**Matrix:** Product

**Client Sample ID:** UST-3-230804

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Hydrocarbon Identification by NWTPH-HCID**

Batch ID: 41094

Analyst: AP

Gasoline	DETECT	600		mg/Kg	1	8/4/2023 6:23:36 PM
Mineral Spirits	ND	1,000		mg/Kg	1	8/4/2023 6:23:36 PM
Kerosene	ND	1,000		mg/Kg	1	8/4/2023 6:23:36 PM
Diesel (Fuel Oil)	DETECT	1,000		mg/Kg	1	8/4/2023 6:23:36 PM
Heavy Oil	DETECT	2,000		mg/Kg	1	8/4/2023 6:23:36 PM
Mineral Oil	ND	2,000		mg/Kg	1	8/4/2023 6:23:36 PM
Surr: 2-Fluorobiphenyl	86.5	50 - 150		%Rec	1	8/4/2023 6:23:36 PM
Surr: o-Terphenyl	102	50 - 150		%Rec	1	8/4/2023 6:23:36 PM

**Work Order:** 2308065  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>DX-CCV-41094A</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/4/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789916</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	569	50.0	500.0	0	114	80	120				
Surr: 2-Fluorobiphenyl	11.8		10.00		118	50	150				
Surr: o-Terphenyl	14.2		10.00		142	50	150				

Sample ID: <b>MB-41094</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/3/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789917</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	30.0									
Mineral Spirits	ND	50.0									
Kerosene	ND	50.0									
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Mineral Oil	ND	100									
Surr: 2-Fluorobiphenyl	9.42		10.00		94.2	50	150				
Surr: o-Terphenyl	9.61		10.00		96.1	50	150				

Sample ID: <b>LCS-41094</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/3/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789918</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	454	50.0	500.0	0	90.8	74.5	125				
Surr: 2-Fluorobiphenyl	9.70		10.00		97.0	50	150				
Surr: o-Terphenyl	11.3		10.00		113	50	150				

Sample ID: <b>DX-CCV-41094B</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/4/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789920</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	479	50.0	500.0	0	95.8	80	120				

**Work Order:** 2308065  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>DX-CCV-41094B</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/4/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789920</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	9.20		10.00		92.0	50	150				
Surr: o-Terphenyl	12.1		10.00		121	50	150				

Sample ID: <b>2308037-012ADUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/3/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789922</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	30.1						0		30	
Mineral Spirits	ND	50.2						0		30	
Kerosene	ND	50.2						0		30	
Diesel (Fuel Oil)	ND	50.2						0		30	
Heavy Oil	ND	100						0		30	
Mineral Oil	ND	100						0		30	
Surr: 2-Fluorobiphenyl	8.84		10.03		88.1	50	150		0		
Surr: o-Terphenyl	8.80		10.03		87.7	50	150		0		

Sample ID: <b>DX-CCV-41094C</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/4/2023</b>		RunNo: <b>85777</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41094</b>				Analysis Date: <b>8/4/2023</b>		SeqNo: <b>1789925</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	481	50.0	500.0	0	96.2	80	120				
Surr: 2-Fluorobiphenyl	10.3		10.00		103	50	150				
Surr: o-Terphenyl	12.0		10.00		120	50	150				

Client Name: GEI	Work Order Number: 2308065
Logged by: Morgan Wilson	Date Received: 8/4/2023 10:22:00 AM

**Chain of Custody**

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

**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 \* Unknown prior to receipt. 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 holding times 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

**Item Information**

Item #	Temp °C
Sample	24.1

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





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: S Jackson Street  
Work Order Number: 2308151**

August 28, 2023

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 12 sample(s) on 8/10/2023 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.  
Gasoline by NWTPH-Gx  
Polycyclic Aromatic Hydrocarbons by EPA Method 8270 (SIM)  
Polychlorinated Biphenyls (PCB) by EPA Method 8082  
Sample Moisture (Percent Moisture)  
Total Metals by EPA Method 6020B  
Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Revision v2

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street  
**Work Order:** 2308151

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308151-001	R1-NSW-98	08/08/2023 9:00 AM	08/10/2023 11:11 AM
2308151-002	UST2-NSW-93	08/08/2023 2:00 PM	08/10/2023 11:11 AM
2308151-003	UST2-WSW-93	08/08/2023 1:55 PM	08/10/2023 11:11 AM
2308151-004	UST2-SSW-93	08/08/2023 2:05 PM	08/10/2023 11:11 AM
2308151-005	UST2-B-89	08/08/2023 1:50 PM	08/10/2023 11:11 AM
2308151-006	UST3-NSW-93	08/08/2023 3:15 PM	08/10/2023 11:11 AM
2308151-007	UST3-SSW-93	08/08/2023 3:25 PM	08/10/2023 11:11 AM
2308151-008	UST3-WSW-93	08/08/2023 3:30 PM	08/10/2023 11:11 AM
2308151-009	UST3-B-90	08/08/2023 3:20 PM	08/10/2023 11:11 AM
2308151-010	UST4-NSW-93	08/09/2023 7:45 AM	08/10/2023 11:11 AM
2308151-011	UST4-SSW-93	08/09/2023 7:50 AM	08/10/2023 11:11 AM
2308151-012	UST4-B-90	08/09/2023 7:55 AM	08/10/2023 11:11 AM

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



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**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

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### 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.

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2308151-006A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2308151-006A) required Florisil Cleanup Procedure (Using Method No 3620C).

Rev 1: Additional analyses requested by the client.

Rev 2: Additional analyses requested by the client.

### 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: 2308151  
 Date Reported: 8/28/2023

**Client:** GeoEngineers

**Collection Date:** 8/8/2023 9:00:00 AM

**Project:** S Jackson Street

**Lab ID:** 2308151-001

**Matrix:** Soil

**Client Sample ID:** R1-NSW-98

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Total Metals by EPA Method 6020B**

Batch ID: 41172 Analyst: JR

Lead	4.48	0.997		mg/Kg-dry	1	8/11/2023 1:46:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	23.8	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-002  
**Client Sample ID:** UST2-NSW-93

**Collection Date:** 8/8/2023 2:00:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170 Analyst: AP

Diesel Range Organics	ND	56.8		mg/Kg-dry	1	8/10/2023 6:10:41 PM
Heavy Oil	ND	114		mg/Kg-dry	1	8/10/2023 6:10:41 PM
Total Petroleum Hydrocarbons	ND	171		mg/Kg-dry	1	8/10/2023 6:10:41 PM
Surr: 2-Fluorobiphenyl	112	50 - 150		%Rec	1	8/10/2023 6:10:41 PM
Surr: o-Terphenyl	114	50 - 150		%Rec	1	8/10/2023 6:10:41 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41251 Analyst: RG

Naphthalene	34.9	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
2-Methylnaphthalene	48.2	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
1-Methylnaphthalene	25.6	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Acenaphthylene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Acenaphthene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Fluorene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Phenanthrene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Anthracene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Fluoranthene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Pyrene	ND	44.4		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Benz(a)anthracene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Chrysene	ND	22.2		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Benzo(b)fluoranthene	ND	27.7		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Benzo(k)fluoranthene	ND	27.7		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Benzo(a)pyrene	ND	33.3		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Indeno(1,2,3-cd)pyrene	ND	44.4		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Dibenz(a,h)anthracene	ND	55.5		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Benzo(g,h,i)perylene	ND	55.5		µg/Kg-dry	1	8/21/2023 2:10:40 PM
Surr: 2-Fluorobiphenyl	84.2	22.2 - 146		%Rec	1	8/21/2023 2:10:40 PM
Surr: Terphenyl-d14 (surr)	80.9	20.2 - 159		%Rec	1	8/21/2023 2:10:40 PM

**Gasoline by NWTPH-Gx**

Batch ID: 41166 Analyst: CC

Gasoline Range Organics	55.9	6.90		mg/Kg-dry	1	8/12/2023 4:59:08 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	8/12/2023 4:59:08 PM
Surr: 4-Bromofluorobenzene	98.5	65 - 135		%Rec	1	8/12/2023 4:59:08 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Benzene	ND	0.0242		mg/Kg-dry	1	8/12/2023 4:59:08 PM
Toluene	ND	0.0414		mg/Kg-dry	1	8/12/2023 4:59:08 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-002  
**Client Sample ID:** UST2-NSW-93

**Collection Date:** 8/8/2023 2:00:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Ethylbenzene	ND	0.0345		mg/Kg-dry	1	8/12/2023 4:59:08 PM
m,p-Xylene	0.109	0.0690		mg/Kg-dry	1	8/12/2023 4:59:08 PM
o-Xylene	ND	0.0345		mg/Kg-dry	1	8/12/2023 4:59:08 PM
Surr: Dibromofluoromethane	100	79.5 - 124		%Rec	1	8/12/2023 4:59:08 PM
Surr: Toluene-d8	98.3	77.5 - 124		%Rec	1	8/12/2023 4:59:08 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	60.5 - 139		%Rec	1	8/12/2023 4:59:08 PM

**Total Metals by EPA Method 6020B**

Batch ID: 41271 Analyst: SLL

Lead	5.63	0.877		mg/Kg-dry	1	8/23/2023 1:47:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	12.9	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-003  
**Client Sample ID:** UST2-WSW-93

**Collection Date:** 8/8/2023 1:55:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170      Analyst: AP

Diesel Range Organics	ND	52.4		mg/Kg-dry	1	8/10/2023 6:32:43 PM
Heavy Oil	ND	105		mg/Kg-dry	1	8/10/2023 6:32:43 PM
Total Petroleum Hydrocarbons	ND	157		mg/Kg-dry	1	8/10/2023 6:32:43 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	8/10/2023 6:32:43 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	8/10/2023 6:32:43 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41251      Analyst: RG

Naphthalene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
2-Methylnaphthalene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
1-Methylnaphthalene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Acenaphthylene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Acenaphthene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Fluorene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Phenanthrene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Anthracene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Fluoranthene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Pyrene	ND	37.4		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Benz(a)anthracene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Chrysene	ND	18.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Benzo(b)fluoranthene	ND	23.4		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Benzo(k)fluoranthene	ND	23.4		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Benzo(a)pyrene	ND	28.0		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Indeno(1,2,3-cd)pyrene	ND	37.4		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Dibenz(a,h)anthracene	ND	46.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Benzo(g,h,i)perylene	ND	46.7		µg/Kg-dry	1	8/21/2023 3:35:09 PM
Surr: 2-Fluorobiphenyl	75.3	22.2 - 146		%Rec	1	8/21/2023 3:35:09 PM
Surr: Terphenyl-d14 (surr)	73.3	20.2 - 159		%Rec	1	8/21/2023 3:35:09 PM

**Gasoline by NWTPH-Gx**

Batch ID: 41166      Analyst: CC

Gasoline Range Organics	ND	5.72		mg/Kg-dry	1	8/12/2023 5:31:00 PM
Surr: Toluene-d8	99.7	65 - 135		%Rec	1	8/12/2023 5:31:00 PM
Surr: 4-Bromofluorobenzene	98.2	65 - 135		%Rec	1	8/12/2023 5:31:00 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Benzene	ND	0.0200		mg/Kg-dry	1	8/12/2023 5:31:00 PM
Toluene	ND	0.0343		mg/Kg-dry	1	8/12/2023 5:31:00 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-003  
**Client Sample ID:** UST2-WSW-93

**Collection Date:** 8/8/2023 1:55:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Ethylbenzene	ND	0.0286		mg/Kg-dry	1	8/12/2023 5:31:00 PM
m,p-Xylene	ND	0.0572		mg/Kg-dry	1	8/12/2023 5:31:00 PM
o-Xylene	ND	0.0286		mg/Kg-dry	1	8/12/2023 5:31:00 PM
Surr: Dibromofluoromethane	99.8	79.5 - 124		%Rec	1	8/12/2023 5:31:00 PM
Surr: Toluene-d8	98.9	77.5 - 124		%Rec	1	8/12/2023 5:31:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.0	60.5 - 139		%Rec	1	8/12/2023 5:31:00 PM

**Total Metals by EPA Method 6020B**

Batch ID: 41271 Analyst: SLL

Lead	4.90	0.889		mg/Kg-dry	1	8/23/2023 1:50:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	7.77	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-005  
**Client Sample ID:** UST2-B-89

**Collection Date:** 8/8/2023 1:50:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170 Analyst: AP

Diesel Range Organics	265	52.6		mg/Kg-dry	1	8/10/2023 6:43:40 PM
Heavy Oil	ND	105		mg/Kg-dry	1	8/10/2023 6:43:40 PM
Total Petroleum Hydrocarbons	265	158		mg/Kg-dry	1	8/10/2023 6:43:40 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	8/10/2023 6:43:40 PM
Surr: o-Terphenyl	105	50 - 150		%Rec	1	8/10/2023 6:43:40 PM

**NOTES:**

Detection is due to overlap with gasoline-range material

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41251 Analyst: RG

Naphthalene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
2-Methylnaphthalene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
1-Methylnaphthalene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Acenaphthylene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Acenaphthene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Fluorene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Phenanthrene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Anthracene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Fluoranthene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Pyrene	ND	40.8		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Benz(a)anthracene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Chrysene	ND	20.4		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Benzo(b)fluoranthene	ND	25.5		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Benzo(k)fluoranthene	ND	25.5		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Benzo(a)pyrene	ND	30.6		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Indeno(1,2,3-cd)pyrene	ND	40.8		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Dibenz(a,h)anthracene	ND	51.0		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Benzo(g,h,i)perylene	ND	51.0		µg/Kg-dry	1	8/21/2023 4:03:20 PM
Surr: 2-Fluorobiphenyl	64.7	22.2 - 146		%Rec	1	8/21/2023 4:03:20 PM
Surr: Terphenyl-d14 (surr)	53.6	20.2 - 159		%Rec	1	8/21/2023 4:03:20 PM

**Gasoline by NWTPH-Gx**

Batch ID: 41166 Analyst: CC

Gasoline Range Organics	500	111	D	mg/Kg-dry	20	8/14/2023 3:54:32 PM
Surr: Toluene-d8	99.3	65 - 135	D	%Rec	20	8/14/2023 3:54:32 PM
Surr: 4-Bromofluorobenzene	98.3	65 - 135	D	%Rec	20	8/14/2023 3:54:32 PM





# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers

**Collection Date:** 8/8/2023 1:50:00 PM

**Project:** S Jackson Street

**Lab ID:** 2308151-005

**Matrix:** Soil

**Client Sample ID:** UST2-B-89

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Benzene	ND	0.0195		mg/Kg-dry	1	8/12/2023 6:02:44 PM
Toluene	ND	0.0334		mg/Kg-dry	1	8/12/2023 6:02:44 PM
Ethylbenzene	0.0607	0.0279		mg/Kg-dry	1	8/12/2023 6:02:44 PM
m,p-Xylene	0.246	0.0557		mg/Kg-dry	1	8/12/2023 6:02:44 PM
o-Xylene	ND	0.0279		mg/Kg-dry	1	8/12/2023 6:02:44 PM
Surr: Dibromofluoromethane	102	79.5 - 124		%Rec	1	8/12/2023 6:02:44 PM
Surr: Toluene-d8	90.1	77.5 - 124		%Rec	1	8/12/2023 6:02:44 PM
Surr: 1-Bromo-4-fluorobenzene	100	60.5 - 139		%Rec	1	8/12/2023 6:02:44 PM

**Total Metals by EPA Method 6020B**

Batch ID: 41271 Analyst: SLL

Lead	10.9	0.875		mg/Kg-dry	1	8/23/2023 1:57:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	11.4	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-006  
**Client Sample ID:** UST3-NSW-93

**Collection Date:** 8/8/2023 3:15:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA Method 8082**

Batch ID: 41197      Analyst: SK

Aroclor 1016	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1221	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1232	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1242	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1248	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1254	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1260	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1262	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Aroclor 1268	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Total PCBs	ND	0.0252		mg/Kg-dry	1	8/15/2023 12:36:03 PM
Surr: Decachlorobiphenyl	35.8	5 - 160		%Rec	1	8/15/2023 12:36:03 PM
Surr: Tetrachloro-m-xylene	68.1	57.3 - 159		%Rec	1	8/15/2023 12:36:03 PM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170      Analyst: AP

Diesel Range Organics	ND	63.6		mg/Kg-dry	1	8/10/2023 6:54:37 PM
Heavy Oil	ND	127		mg/Kg-dry	1	8/10/2023 6:54:37 PM
Total Petroleum Hydrocarbons	ND	191		mg/Kg-dry	1	8/10/2023 6:54:37 PM
Surr: 2-Fluorobiphenyl	106	50 - 150		%Rec	1	8/10/2023 6:54:37 PM
Surr: o-Terphenyl	108	50 - 150		%Rec	1	8/10/2023 6:54:37 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41191      Analyst: SH

Naphthalene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
2-Methylnaphthalene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
1-Methylnaphthalene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Acenaphthylene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Acenaphthene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Fluorene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Phenanthrene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Anthracene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Fluoranthene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Pyrene	ND	48.7		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Benz(a)anthracene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Chrysene	ND	24.3		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Benzo(b)fluoranthene	ND	30.4		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Benzo(k)fluoranthene	ND	30.4		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Benzo(a)pyrene	ND	36.5		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Indeno(1,2,3-cd)pyrene	ND	48.7		µg/Kg-dry	1	8/14/2023 12:09:56 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-006  
**Client Sample ID:** UST3-NSW-93

**Collection Date:** 8/8/2023 3:15:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41191 Analyst: SH

Dibenz(a,h)anthracene	ND	60.9		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Benzo(g,h,i)perylene	ND	60.9		µg/Kg-dry	1	8/14/2023 12:09:56 PM
Surr: 2-Fluorobiphenyl	105	22.2 - 146		%Rec	1	8/14/2023 12:09:56 PM
Surr: Terphenyl-d14 (surr)	121	20.2 - 159		%Rec	1	8/14/2023 12:09:56 PM

**Gasoline by NWTPH-Gx**

Batch ID: 41166 Analyst: CC

Gasoline Range Organics	ND	5.98		mg/Kg-dry	1	8/14/2023 11:34:13 AM
Surr: Toluene-d8	98.8	65 - 135		%Rec	1	8/14/2023 11:34:13 AM
Surr: 4-Bromofluorobenzene	98.5	65 - 135		%Rec	1	8/14/2023 11:34:13 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Dichlorodifluoromethane (CFC-12)	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Chloromethane	ND	0.0598		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Vinyl chloride	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Bromomethane	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Trichlorofluoromethane (CFC-11)	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Chloroethane	ND	0.0897		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1-Dichloroethene	ND	0.120		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Acetone	ND	0.299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Methylene chloride	ND	0.0418		mg/Kg-dry	1	8/12/2023 6:34:29 PM
trans-1,2-Dichloroethene	ND	0.0120		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Methyl tert-butyl ether (MTBE)	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1-Dichloroethane	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
cis-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
(MEK) 2-Butanone	ND	0.359		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Chloroform	ND	0.0209		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1,1-Trichloroethane (TCA)	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1-Dichloropropene	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Carbon tetrachloride	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2-Dichloroethane (EDC)	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Benzene	ND	0.0209		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Trichloroethene (TCE)	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2-Dichloropropane	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Bromodichloromethane	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Dibromomethane	ND	0.0149		mg/Kg-dry	1	8/12/2023 6:34:29 PM
cis-1,3-Dichloropropene	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Toluene	ND	0.0359		mg/Kg-dry	1	8/12/2023 6:34:29 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-006  
**Client Sample ID:** UST3-NSW-93

**Collection Date:** 8/8/2023 3:15:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Trans-1,3-Dichloropropylene	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0717		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1,2-Trichloroethane	ND	0.0149		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,3-Dichloropropane	ND	0.0120		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Tetrachloroethene (PCE)	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Dibromochloromethane	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2-Dibromoethane (EDB)	ND	0.0120		mg/Kg-dry	1	8/12/2023 6:34:29 PM
2-Hexanone (MBK)	ND	0.0747		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Chlorobenzene	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1,1,2-Tetrachloroethane	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Ethylbenzene	0.0414	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
m,p-Xylene	0.152	0.0598		mg/Kg-dry	1	8/12/2023 6:34:29 PM
o-Xylene	ND	0.0299		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Styrene	ND	0.0120		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Isopropylbenzene	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Bromoform	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,1,2,2-Tetrachloroethane	ND	0.239	Q	mg/Kg-dry	1	8/12/2023 6:34:29 PM
n-Propylbenzene	0.0524	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Bromobenzene	ND	0.0149		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,3,5-Trimethylbenzene	0.0316	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
2-Chlorotoluene	ND	0.0197		mg/Kg-dry	1	8/12/2023 6:34:29 PM
4-Chlorotoluene	ND	0.0197		mg/Kg-dry	1	8/12/2023 6:34:29 PM
tert-Butylbenzene	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2,3-Trichloropropane	ND	0.0359		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2,4-Trichlorobenzene	ND	0.0717		mg/Kg-dry	1	8/12/2023 6:34:29 PM
sec-Butylbenzene	ND	0.179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
4-Isopropyltoluene	ND	0.239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,3-Dichlorobenzene	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,4-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
n-Butylbenzene	0.0276	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2-Dichlorobenzene	ND	0.0239		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2-Dibromo-3-chloropropane	ND	0.0359		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2,4-Trimethylbenzene	0.122	0.0179		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Hexachloro-1,3-butadiene	ND	0.0478		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Naphthalene	ND	0.120		mg/Kg-dry	1	8/12/2023 6:34:29 PM
1,2,3-Trichlorobenzene	ND	0.0717		mg/Kg-dry	1	8/12/2023 6:34:29 PM
Surr: Dibromofluoromethane	99.0	79.5 - 124		%Rec	1	8/12/2023 6:34:29 PM
Surr: Toluene-d8	97.8	77.5 - 124		%Rec	1	8/12/2023 6:34:29 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	60.5 - 139		%Rec	1	8/12/2023 6:34:29 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-006  
**Client Sample ID:** UST3-NSW-93

**Collection Date:** 8/8/2023 3:15:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

**Total Metals by EPA Method 6020B**

Batch ID: 41192 Analyst: JR

Lead	5.53	1.02		mg/Kg-dry	1	8/14/2023 2:23:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85887 Analyst: MP

Percent Moisture	22.5	0.500		wt%	1	8/14/2023 8:21:46 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-008  
**Client Sample ID:** UST3-WSW-93

**Collection Date:** 8/8/2023 3:30:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA Method 8082**

Batch ID: 41176      Analyst: SK

Aroclor 1016	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1221	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1232	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1242	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1248	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1254	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1260	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1262	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Aroclor 1268	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Total PCBs	ND	0.0212		mg/Kg-dry	1	8/10/2023 8:18:48 PM
Surr: Decachlorobiphenyl	40.1	5 - 160		%Rec	1	8/10/2023 8:18:48 PM
Surr: Tetrachloro-m-xylene	91.0	57.3 - 159		%Rec	1	8/10/2023 8:18:48 PM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170      Analyst: AP

Diesel Range Organics	ND	50.5		mg/Kg-dry	1	8/10/2023 7:05:33 PM
Heavy Oil	ND	101		mg/Kg-dry	1	8/10/2023 7:05:33 PM
Total Petroleum Hydrocarbons	ND	151		mg/Kg-dry	1	8/10/2023 7:05:33 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	8/10/2023 7:05:33 PM
Surr: o-Terphenyl	104	50 - 150		%Rec	1	8/10/2023 7:05:33 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Naphthalene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
2-Methylnaphthalene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
1-Methylnaphthalene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Acenaphthylene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Acenaphthene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Fluorene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Phenanthrene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Anthracene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Fluoranthene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Pyrene	ND	42.1		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Benz(a)anthracene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Chrysene	ND	21.0		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Benzo(b)fluoranthene	ND	26.3		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Benzo(k)fluoranthene	ND	26.3		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Benzo(a)pyrene	ND	31.5		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Indeno(1,2,3-cd)pyrene	ND	42.1		µg/Kg-dry	1	8/10/2023 11:19:30 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-008  
**Client Sample ID:** UST3-WSW-93

**Collection Date:** 8/8/2023 3:30:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173 Analyst: SH

Dibenz(a,h)anthracene	ND	52.6		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Benzo(g,h,i)perylene	ND	52.6		µg/Kg-dry	1	8/10/2023 11:19:30 PM
Surr: 2-Fluorobiphenyl	103	22.2 - 146		%Rec	1	8/10/2023 11:19:30 PM
Surr: Terphenyl-d14 (surr)	123	20.2 - 159		%Rec	1	8/10/2023 11:19:30 PM

**Gasoline by NWTPH-Gx**

Batch ID: 41166 Analyst: CC

Gasoline Range Organics	ND	5.09		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Surr: Toluene-d8	99.3	65 - 135		%Rec	1	8/12/2023 7:06:14 PM
Surr: 4-Bromofluorobenzene	97.8	65 - 135		%Rec	1	8/12/2023 7:06:14 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Dichlorodifluoromethane (CFC-12)	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Chloromethane	ND	0.0509		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Vinyl chloride	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Bromomethane	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Trichlorofluoromethane (CFC-11)	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Chloroethane	ND	0.0764		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1-Dichloroethene	ND	0.102		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Acetone	ND	0.255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Methylene chloride	ND	0.0357		mg/Kg-dry	1	8/12/2023 7:06:14 PM
trans-1,2-Dichloroethene	ND	0.0102		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Methyl tert-butyl ether (MTBE)	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1-Dichloroethane	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
cis-1,2-Dichloroethene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
(MEK) 2-Butanone	ND	0.306		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Chloroform	ND	0.0178		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1,1-Trichloroethane (TCA)	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1-Dichloropropene	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Carbon tetrachloride	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2-Dichloroethane (EDC)	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Benzene	ND	0.0178		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Trichloroethene (TCE)	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2-Dichloropropane	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Bromodichloromethane	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Dibromomethane	ND	0.0127		mg/Kg-dry	1	8/12/2023 7:06:14 PM
cis-1,3-Dichloropropene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Toluene	ND	0.0306		mg/Kg-dry	1	8/12/2023 7:06:14 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-008  
**Client Sample ID:** UST3-WSW-93

**Collection Date:** 8/8/2023 3:30:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Trans-1,3-Dichloropropylene	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0611		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1,2-Trichloroethane	ND	0.0127		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,3-Dichloropropane	ND	0.0102		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Tetrachloroethene (PCE)	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Dibromochloromethane	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2-Dibromoethane (EDB)	ND	0.0102		mg/Kg-dry	1	8/12/2023 7:06:14 PM
2-Hexanone (MBK)	ND	0.0637		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Chlorobenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1,1,2-Tetrachloroethane	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Ethylbenzene	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
m,p-Xylene	ND	0.0509		mg/Kg-dry	1	8/12/2023 7:06:14 PM
o-Xylene	ND	0.0255		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Styrene	ND	0.0102		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Isopropylbenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Bromoform	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,1,2,2-Tetrachloroethane	ND	0.204	Q	mg/Kg-dry	1	8/12/2023 7:06:14 PM
n-Propylbenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Bromobenzene	ND	0.0127		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,3,5-Trimethylbenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
2-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	8/12/2023 7:06:14 PM
4-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	8/12/2023 7:06:14 PM
tert-Butylbenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2,3-Trichloropropane	ND	0.0306		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2,4-Trichlorobenzene	ND	0.0611		mg/Kg-dry	1	8/12/2023 7:06:14 PM
sec-Butylbenzene	ND	0.153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
4-Isopropyltoluene	ND	0.204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,3-Dichlorobenzene	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,4-Dichlorobenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
n-Butylbenzene	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2-Dichlorobenzene	ND	0.0204		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2-Dibromo-3-chloropropane	ND	0.0306		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2,4-Trimethylbenzene	ND	0.0153		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Hexachloro-1,3-butadiene	ND	0.0407		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Naphthalene	ND	0.102		mg/Kg-dry	1	8/12/2023 7:06:14 PM
1,2,3-Trichlorobenzene	ND	0.0611		mg/Kg-dry	1	8/12/2023 7:06:14 PM
Surr: Dibromofluoromethane	98.5	79.5 - 124		%Rec	1	8/12/2023 7:06:14 PM
Surr: Toluene-d8	97.5	77.5 - 124		%Rec	1	8/12/2023 7:06:14 PM
Surr: 1-Bromo-4-fluorobenzene	97.6	60.5 - 139		%Rec	1	8/12/2023 7:06:14 PM





# Analytical Report

Work Order: 2308151  
 Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-008  
**Client Sample ID:** UST3-WSW-93

**Collection Date:** 8/8/2023 3:30:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

**Total Metals by EPA Method 6020B**

Batch ID: 41172 Analyst: JR

Lead	1.78	0.852		mg/Kg-dry	1	8/11/2023 1:49:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	7.76	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-009  
**Client Sample ID:** UST3-B-90

**Collection Date:** 8/8/2023 3:20:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA Method 8082**

Batch ID: 41176 Analyst: SK

Aroclor 1016	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1221	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1232	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1242	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1248	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1254	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1260	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1262	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Aroclor 1268	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Total PCBs	ND	0.0221		mg/Kg-dry	1	8/10/2023 8:28:34 PM
Surr: Decachlorobiphenyl	38.3	5 - 160		%Rec	1	8/10/2023 8:28:34 PM
Surr: Tetrachloro-m-xylene	76.2	57.3 - 159		%Rec	1	8/10/2023 8:28:34 PM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170 Analyst: AP

Diesel Range Organics	985	55.9		mg/Kg-dry	1	8/10/2023 7:16:28 PM
Heavy Oil	5,480	112		mg/Kg-dry	1	8/10/2023 7:16:28 PM
Total Petroleum Hydrocarbons	6,470	168		mg/Kg-dry	1	8/10/2023 7:16:28 PM
Surr: 2-Fluorobiphenyl	98.7	50 - 150		%Rec	1	8/10/2023 7:16:28 PM
Surr: o-Terphenyl	106	50 - 150		%Rec	1	8/10/2023 7:16:28 PM

**NOTES:**

Diesel range detection is due to overlap with gasoline-range material

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173 Analyst: SH

Naphthalene	ND	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
2-Methylnaphthalene	4,390	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
1-Methylnaphthalene	2,720	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Acenaphthylene	ND	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Acenaphthene	61.8	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Fluorene	93.4	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Phenanthrene	318	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Anthracene	69.7	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Fluoranthene	275	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Pyrene	362	43.2		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Benz(a)anthracene	260	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Chrysene	132	21.6		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Benzo(b)fluoranthene	ND	27.0		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Benzo(k)fluoranthene	ND	27.0		µg/Kg-dry	1	8/10/2023 11:47:35 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-009  
**Client Sample ID:** UST3-B-90

**Collection Date:** 8/8/2023 3:20:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Benzo(a)pyrene	ND	32.4		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Indeno(1,2,3-cd)pyrene	ND	43.2		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Dibenz(a,h)anthracene	ND	54.0		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Benzo(g,h,i)perylene	108	54.0		µg/Kg-dry	1	8/10/2023 11:47:35 PM
Surr: 2-Fluorobiphenyl	119	22.2 - 146		%Rec	1	8/10/2023 11:47:35 PM
Surr: Terphenyl-d14 (surr)	146	20.2 - 159		%Rec	1	8/10/2023 11:47:35 PM

**Gasoline by NWTPH-Gx**

Batch ID: 41178      Analyst: CC

Gasoline Range Organics	1,970	277	D	mg/Kg-dry	50	8/14/2023 2:15:59 PM
Surr: Toluene-d8	100	65 - 135	D	%Rec	50	8/14/2023 2:15:59 PM
Surr: 4-Bromofluorobenzene	98.4	65 - 135	D	%Rec	50	8/14/2023 2:15:59 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41178      Analyst: MS

Dichlorodifluoromethane (CFC-12)	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Chloromethane	ND	0.0554		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Vinyl chloride	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Bromomethane	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Trichlorofluoromethane (CFC-11)	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Chloroethane	ND	0.0832		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1-Dichloroethene	ND	0.111		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Acetone	ND	0.277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Methylene chloride	ND	0.0388		mg/Kg-dry	1	8/12/2023 7:38:03 PM
trans-1,2-Dichloroethene	ND	0.0111		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Methyl tert-butyl ether (MTBE)	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1-Dichloroethane	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
cis-1,2-Dichloroethene	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
(MEK) 2-Butanone	ND	0.333		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Chloroform	ND	0.0194		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1,1-Trichloroethane (TCA)	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1-Dichloropropene	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Carbon tetrachloride	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2-Dichloroethane (EDC)	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Benzene	ND	0.0194		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Trichloroethene (TCE)	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2-Dichloropropane	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Bromodichloromethane	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Dibromomethane	ND	0.0139		mg/Kg-dry	1	8/12/2023 7:38:03 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-009  
**Client Sample ID:** UST3-B-90

**Collection Date:** 8/8/2023 3:20:00 PM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41178      Analyst: MS

cis-1,3-Dichloropropene	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Toluene	ND	0.0333		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Trans-1,3-Dichloropropylene	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0665		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1,2-Trichloroethane	ND	0.0139		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,3-Dichloropropane	ND	0.0111		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Tetrachloroethene (PCE)	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Dibromochloromethane	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2-Dibromoethane (EDB)	ND	0.0111		mg/Kg-dry	1	8/12/2023 7:38:03 PM
2-Hexanone (MBK)	ND	0.0693		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Chlorobenzene	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1,1,2-Tetrachloroethane	ND	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Ethylbenzene	0.491	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
m,p-Xylene	1.70	0.0554		mg/Kg-dry	1	8/12/2023 7:38:03 PM
o-Xylene	0.0678	0.0277		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Styrene	ND	0.0111		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Isopropylbenzene	1.10	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Bromoform	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,1,2,2-Tetrachloroethane	ND	0.222	Q	mg/Kg-dry	1	8/12/2023 7:38:03 PM
n-Propylbenzene	2.76	0.832	D	mg/Kg-dry	50	8/14/2023 2:15:59 PM
Bromobenzene	ND	0.0139		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,3,5-Trimethylbenzene	0.304	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
2-Chlorotoluene	ND	0.0183		mg/Kg-dry	1	8/12/2023 7:38:03 PM
4-Chlorotoluene	ND	0.0183		mg/Kg-dry	1	8/12/2023 7:38:03 PM
tert-Butylbenzene	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2,3-Trichloropropane	ND	0.0333		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2,4-Trichlorobenzene	ND	0.0665		mg/Kg-dry	1	8/12/2023 7:38:03 PM
sec-Butylbenzene	1.40	0.166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
4-Isopropyltoluene	1.32	0.222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,3-Dichlorobenzene	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,4-Dichlorobenzene	ND	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
n-Butylbenzene	2.25	1.11	D	mg/Kg-dry	50	8/14/2023 2:15:59 PM
1,2-Dichlorobenzene	ND	0.0222		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2-Dibromo-3-chloropropane	ND	0.0333		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2,4-Trimethylbenzene	0.760	0.0166		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Hexachloro-1,3-butadiene	ND	0.0444		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Naphthalene	ND	0.111		mg/Kg-dry	1	8/12/2023 7:38:03 PM
1,2,3-Trichlorobenzene	ND	0.0665		mg/Kg-dry	1	8/12/2023 7:38:03 PM
Surr: Dibromofluoromethane	103	79.5 - 124		%Rec	1	8/12/2023 7:38:03 PM



# Analytical Report

Work Order: 2308151  
 Date Reported: 8/28/2023

**Client:** GeoEngineers

**Collection Date:** 8/8/2023 3:20:00 PM

**Project:** S Jackson Street

**Lab ID:** 2308151-009

**Matrix:** Soil

**Client Sample ID:** UST3-B-90

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41178 Analyst: MS

Surr: Toluene-d8	86.5	77.5 - 124		%Rec	1	8/12/2023 7:38:03 PM
Surr: 1-Bromo-4-fluorobenzene	117	60.5 - 139		%Rec	1	8/12/2023 7:38:03 PM

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

**Total Metals by EPA Method 6020B**

Batch ID: 41172 Analyst: JR

Lead	3.21	0.852		mg/Kg-dry	1	8/11/2023 1:57:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	11.4	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-010  
**Client Sample ID:** UST4-NSW-93

**Collection Date:** 8/9/2023 7:45:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA Method 8082**

Batch ID: 41176      Analyst: SK

Aroclor 1016	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1221	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1232	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1242	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1248	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1254	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1260	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1262	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Aroclor 1268	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Total PCBs	ND	0.0238		mg/Kg-dry	1	8/10/2023 8:57:59 PM
Surr: Decachlorobiphenyl	23.7	5 - 160		%Rec	1	8/10/2023 8:57:59 PM
Surr: Tetrachloro-m-xylene	60.3	57.3 - 159		%Rec	1	8/10/2023 8:57:59 PM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170      Analyst: AP

Diesel Range Organics	ND	55.2		mg/Kg-dry	1	8/11/2023 9:12:22 AM
Heavy Oil	ND	110		mg/Kg-dry	1	8/11/2023 9:12:22 AM
Total Petroleum Hydrocarbons	ND	166		mg/Kg-dry	1	8/11/2023 9:12:22 AM
Surr: 2-Fluorobiphenyl	113	50 - 150		%Rec	1	8/11/2023 9:12:22 AM
Surr: o-Terphenyl	116	50 - 150		%Rec	1	8/11/2023 9:12:22 AM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Naphthalene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
2-Methylnaphthalene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
1-Methylnaphthalene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Acenaphthylene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Acenaphthene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Fluorene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Phenanthrene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Anthracene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Fluoranthene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Pyrene	ND	48.2		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Benz(a)anthracene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Chrysene	ND	24.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Benzo(b)fluoranthene	ND	30.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Benzo(k)fluoranthene	ND	30.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Benzo(a)pyrene	ND	36.1		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Indeno(1,2,3-cd)pyrene	ND	48.2		µg/Kg-dry	1	8/11/2023 12:15:42 AM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-010  
**Client Sample ID:** UST4-NSW-93

**Collection Date:** 8/9/2023 7:45:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Dibenz(a,h)anthracene	ND	60.2		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Benzo(g,h,i)perylene	ND	60.2		µg/Kg-dry	1	8/11/2023 12:15:42 AM
Surr: 2-Fluorobiphenyl	115	22.2 - 146		%Rec	1	8/11/2023 12:15:42 AM
Surr: Terphenyl-d14 (surr)	136	20.2 - 159		%Rec	1	8/11/2023 12:15:42 AM

**Gasoline by NWTPH-Gx**

Batch ID: 41166      Analyst: CC

Gasoline Range Organics	ND	5.16		mg/Kg-dry	1	8/14/2023 12:06:25 PM
Surr: Toluene-d8	98.3	65 - 135		%Rec	1	8/14/2023 12:06:25 PM
Surr: 4-Bromofluorobenzene	98.1	65 - 135		%Rec	1	8/14/2023 12:06:25 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Dichlorodifluoromethane (CFC-12)	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Chloromethane	ND	0.0516		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Vinyl chloride	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Bromomethane	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Trichlorofluoromethane (CFC-11)	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Chloroethane	ND	0.0774		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1-Dichloroethene	ND	0.103		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Acetone	ND	0.258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Methylene chloride	ND	0.0361		mg/Kg-dry	1	8/12/2023 8:10:10 PM
trans-1,2-Dichloroethene	ND	0.0103		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Methyl tert-butyl ether (MTBE)	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1-Dichloroethane	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
cis-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
(MEK) 2-Butanone	ND	0.310		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Chloroform	ND	0.0181		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1,1-Trichloroethane (TCA)	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1-Dichloropropene	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Carbon tetrachloride	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2-Dichloroethane (EDC)	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Benzene	ND	0.0181		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Trichloroethene (TCE)	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2-Dichloropropane	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Bromodichloromethane	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Dibromomethane	ND	0.0129		mg/Kg-dry	1	8/12/2023 8:10:10 PM
cis-1,3-Dichloropropene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Toluene	ND	0.0310		mg/Kg-dry	1	8/12/2023 8:10:10 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-010  
**Client Sample ID:** UST4-NSW-93

**Collection Date:** 8/9/2023 7:45:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Trans-1,3-Dichloropropylene	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0619		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1,2-Trichloroethane	ND	0.0129		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,3-Dichloropropane	ND	0.0103		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Dibromochloromethane	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2-Dibromoethane (EDB)	ND	0.0103		mg/Kg-dry	1	8/12/2023 8:10:10 PM
2-Hexanone (MBK)	ND	0.0645		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1,1,2-Tetrachloroethane	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Ethylbenzene	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
m,p-Xylene	ND	0.0516		mg/Kg-dry	1	8/12/2023 8:10:10 PM
o-Xylene	ND	0.0258		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Styrene	ND	0.0103		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Isopropylbenzene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Bromoform	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,1,2,2-Tetrachloroethane	ND	0.206	Q	mg/Kg-dry	1	8/12/2023 8:10:10 PM
n-Propylbenzene	0.0190	0.0155		mg/Kg-dry	1	8/14/2023 12:06:25 PM
Bromobenzene	ND	0.0129		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
2-Chlorotoluene	ND	0.0170		mg/Kg-dry	1	8/12/2023 8:10:10 PM
4-Chlorotoluene	ND	0.0170		mg/Kg-dry	1	8/12/2023 8:10:10 PM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2,3-Trichloropropane	ND	0.0310		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2,4-Trichlorobenzene	ND	0.0619		mg/Kg-dry	1	8/12/2023 8:10:10 PM
sec-Butylbenzene	ND	0.155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
4-Isopropyltoluene	ND	0.206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,3-Dichlorobenzene	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
n-Butylbenzene	ND	0.0206		mg/Kg-dry	1	8/14/2023 12:06:25 PM
1,2-Dichlorobenzene	ND	0.0206		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2-Dibromo-3-chloropropane	ND	0.0310		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2,4-Trimethylbenzene	0.0232	0.0155		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Hexachloro-1,3-butadiene	ND	0.0413		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Naphthalene	ND	0.103		mg/Kg-dry	1	8/12/2023 8:10:10 PM
1,2,3-Trichlorobenzene	ND	0.0619		mg/Kg-dry	1	8/12/2023 8:10:10 PM
Surr: Dibromofluoromethane	96.8	79.5 - 124		%Rec	1	8/12/2023 8:10:10 PM
Surr: Toluene-d8	96.6	77.5 - 124		%Rec	1	8/12/2023 8:10:10 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	60.5 - 139		%Rec	1	8/12/2023 8:10:10 PM





# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers

**Collection Date:** 8/9/2023 7:45:00 AM

**Project:** S Jackson Street

**Lab ID:** 2308151-010

**Matrix:** Soil

**Client Sample ID:** UST4-NSW-93

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

**Total Metals by EPA Method 6020B**

Batch ID: 41172 Analyst: JR

Lead	7.96	0.943		mg/Kg-dry	1	8/11/2023 1:59:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	17.0	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-011  
**Client Sample ID:** UST4-SSW-93

**Collection Date:** 8/9/2023 7:50:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA Method 8082**

Batch ID: 41176 Analyst: SK

Aroclor 1016	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1221	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1232	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1242	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1248	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1254	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1260	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1262	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Aroclor 1268	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Total PCBs	ND	0.0221		mg/Kg-dry	1	8/10/2023 9:07:47 PM
Surr: Decachlorobiphenyl	68.1	5 - 160		%Rec	1	8/10/2023 9:07:47 PM
Surr: Tetrachloro-m-xylene	105	57.3 - 159		%Rec	1	8/10/2023 9:07:47 PM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170 Analyst: AP

Diesel Range Organics	74.3	51.0		mg/Kg-dry	1	8/10/2023 8:22:17 PM
Heavy Oil	ND	102		mg/Kg-dry	1	8/10/2023 8:22:17 PM
Total Petroleum Hydrocarbons	ND	153		mg/Kg-dry	1	8/10/2023 8:22:17 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	8/10/2023 8:22:17 PM
Surr: o-Terphenyl	106	50 - 150		%Rec	1	8/10/2023 8:22:17 PM

**NOTES:**

Detection is due to overlap with gasoline-range material

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173 Analyst: SH

Naphthalene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
2-Methylnaphthalene	291	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
1-Methylnaphthalene	206	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Acenaphthylene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Acenaphthene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Fluorene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Phenanthrene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Anthracene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Fluoranthene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Pyrene	ND	44.4		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Benz(a)anthracene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Chrysene	ND	22.2		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Benzo(b)fluoranthene	ND	27.8		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Benzo(k)fluoranthene	ND	27.8		µg/Kg-dry	1	8/11/2023 12:43:39 AM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-011  
**Client Sample ID:** UST4-SSW-93

**Collection Date:** 8/9/2023 7:50:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Benzo(a)pyrene	ND	33.3		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Indeno(1,2,3-cd)pyrene	ND	44.4		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Dibenz(a,h)anthracene	ND	55.5		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Benzo(g,h,i)perylene	ND	55.5		µg/Kg-dry	1	8/11/2023 12:43:39 AM
Surr: 2-Fluorobiphenyl	108	22.2 - 146		%Rec	1	8/11/2023 12:43:39 AM
Surr: Terphenyl-d14 (surr)	122	20.2 - 159		%Rec	1	8/11/2023 12:43:39 AM

**Gasoline by NWTPH-Gx**

Batch ID: 41166      Analyst: CC

Gasoline Range Organics	96.9	54.2	D	mg/Kg-dry	10	8/14/2023 1:43:27 PM
Surr: Toluene-d8	98.8	65 - 135	D	%Rec	10	8/14/2023 1:43:27 PM
Surr: 4-Bromofluorobenzene	98.9	65 - 135	D	%Rec	10	8/14/2023 1:43:27 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Dichlorodifluoromethane (CFC-12)	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Chloromethane	ND	0.0542		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Vinyl chloride	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Bromomethane	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Trichlorofluoromethane (CFC-11)	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Chloroethane	ND	0.0813		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1-Dichloroethene	ND	0.108		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Acetone	ND	0.271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Methylene chloride	ND	0.0379		mg/Kg-dry	1	8/12/2023 8:42:17 PM
trans-1,2-Dichloroethene	ND	0.0108		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Methyl tert-butyl ether (MTBE)	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1-Dichloroethane	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
cis-1,2-Dichloroethene	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
(MEK) 2-Butanone	ND	0.325		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Chloroform	ND	0.0190		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1,1-Trichloroethane (TCA)	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1-Dichloropropene	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Carbon tetrachloride	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2-Dichloroethane (EDC)	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Benzene	ND	0.0190		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Trichloroethene (TCE)	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2-Dichloropropane	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Bromodichloromethane	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Dibromomethane	ND	0.0135		mg/Kg-dry	1	8/12/2023 8:42:17 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-011  
**Client Sample ID:** UST4-SSW-93

**Collection Date:** 8/9/2023 7:50:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

cis-1,3-Dichloropropene	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Toluene	ND	0.0325		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Trans-1,3-Dichloropropylene	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0650		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1,2-Trichloroethane	ND	0.0135		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,3-Dichloropropane	ND	0.0108		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Tetrachloroethene (PCE)	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Dibromochloromethane	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2-Dibromoethane (EDB)	ND	0.0108		mg/Kg-dry	1	8/12/2023 8:42:17 PM
2-Hexanone (MBK)	ND	0.0677		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Chlorobenzene	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1,1,2-Tetrachloroethane	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Ethylbenzene	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
m,p-Xylene	ND	0.0542		mg/Kg-dry	1	8/12/2023 8:42:17 PM
o-Xylene	ND	0.0271		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Styrene	ND	0.0108		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Isopropylbenzene	0.0167	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Bromoform	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,1,2,2-Tetrachloroethane	ND	0.217	Q	mg/Kg-dry	1	8/12/2023 8:42:17 PM
n-Propylbenzene	0.0684	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Bromobenzene	ND	0.0135		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,3,5-Trimethylbenzene	0.0267	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
2-Chlorotoluene	ND	0.0179		mg/Kg-dry	1	8/12/2023 8:42:17 PM
4-Chlorotoluene	ND	0.0179		mg/Kg-dry	1	8/12/2023 8:42:17 PM
tert-Butylbenzene	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2,3-Trichloropropane	ND	0.0325		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2,4-Trichlorobenzene	ND	0.0650		mg/Kg-dry	1	8/12/2023 8:42:17 PM
sec-Butylbenzene	ND	0.163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
4-Isopropyltoluene	ND	0.217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,3-Dichlorobenzene	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,4-Dichlorobenzene	ND	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
n-Butylbenzene	0.0996	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2-Dichlorobenzene	ND	0.0217		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2-Dibromo-3-chloropropane	ND	0.0325		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2,4-Trimethylbenzene	0.107	0.0163		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Hexachloro-1,3-butadiene	ND	0.0434		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Naphthalene	0.116	0.108		mg/Kg-dry	1	8/12/2023 8:42:17 PM
1,2,3-Trichlorobenzene	ND	0.0650		mg/Kg-dry	1	8/12/2023 8:42:17 PM
Surr: Dibromofluoromethane	97.8	79.5 - 124		%Rec	1	8/12/2023 8:42:17 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers

**Collection Date:** 8/9/2023 7:50:00 AM

**Project:** S Jackson Street

**Lab ID:** 2308151-011

**Matrix:** Soil

**Client Sample ID:** UST4-SSW-93

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166 Analyst: KJ

Surr: Toluene-d8	96.2	77.5 - 124		%Rec	1	8/12/2023 8:42:17 PM
Surr: 1-Bromo-4-fluorobenzene	97.4	60.5 - 139		%Rec	1	8/12/2023 8:42:17 PM

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

**Total Metals by EPA Method 6020B**

Batch ID: 41172 Analyst: JR

Lead	2.85	0.890		mg/Kg-dry	1	8/11/2023 2:02:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85861 Analyst: MP

Percent Moisture	9.96	0.500		wt%	1	8/11/2023 8:37:20 AM
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# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-012  
**Client Sample ID:** UST4-B-90

**Collection Date:** 8/9/2023 7:55:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polychlorinated Biphenyls (PCB) by EPA Method 8082**

Batch ID: 41176      Analyst: SK

Aroclor 1016	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1221	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1232	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1242	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1248	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1254	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1260	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1262	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Aroclor 1268	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Total PCBs	ND	0.0215		mg/Kg-dry	1	8/10/2023 9:17:35 PM
Surr: Decachlorobiphenyl	40.6	5 - 160		%Rec	1	8/10/2023 9:17:35 PM
Surr: Tetrachloro-m-xylene	88.5	57.3 - 159		%Rec	1	8/10/2023 9:17:35 PM

**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 41170      Analyst: AP

Diesel Range Organics	ND	51.7		mg/Kg-dry	1	8/10/2023 8:33:10 PM
Heavy Oil	ND	103		mg/Kg-dry	1	8/10/2023 8:33:10 PM
Total Petroleum Hydrocarbons	ND	155		mg/Kg-dry	1	8/10/2023 8:33:10 PM
Surr: 2-Fluorobiphenyl	101	50 - 150		%Rec	1	8/10/2023 8:33:10 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	8/10/2023 8:33:10 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Naphthalene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
2-Methylnaphthalene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
1-Methylnaphthalene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Acenaphthylene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Acenaphthene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Fluorene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Phenanthrene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Anthracene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Fluoranthene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Pyrene	ND	41.1		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Benz(a)anthracene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Chrysene	ND	20.5		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Benzo(b)fluoranthene	ND	25.7		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Benzo(k)fluoranthene	ND	25.7		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Benzo(a)pyrene	ND	30.8		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Indeno(1,2,3-cd)pyrene	ND	41.1		µg/Kg-dry	1	8/11/2023 1:11:38 AM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-012  
**Client Sample ID:** UST4-B-90

**Collection Date:** 8/9/2023 7:55:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 41173      Analyst: SH

Dibenz(a,h)anthracene	ND	51.3		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Benzo(g,h,i)perylene	ND	51.3		µg/Kg-dry	1	8/11/2023 1:11:38 AM
Surr: 2-Fluorobiphenyl	102	22.2 - 146		%Rec	1	8/11/2023 1:11:38 AM
Surr: Terphenyl-d14 (surr)	121	20.2 - 159		%Rec	1	8/11/2023 1:11:38 AM

**Gasoline by NWTPH-Gx**

Batch ID: 41166      Analyst: CC

Gasoline Range Organics	ND	5.72		mg/Kg-dry	1	8/14/2023 12:38:41 PM
Surr: Toluene-d8	98.4	65 - 135		%Rec	1	8/14/2023 12:38:41 PM
Surr: 4-Bromofluorobenzene	98.0	65 - 135		%Rec	1	8/14/2023 12:38:41 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Dichlorodifluoromethane (CFC-12)	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Chloromethane	ND	0.0572		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Vinyl chloride	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Bromomethane	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Trichlorofluoromethane (CFC-11)	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Chloroethane	ND	0.0858		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1-Dichloroethene	ND	0.114		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Acetone	ND	0.286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Methylene chloride	ND	0.0400		mg/Kg-dry	1	8/12/2023 9:14:13 PM
trans-1,2-Dichloroethene	ND	0.0114		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Methyl tert-butyl ether (MTBE)	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1-Dichloroethane	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
cis-1,2-Dichloroethene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
(MEK) 2-Butanone	ND	0.343		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Chloroform	ND	0.0200		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1,1-Trichloroethane (TCA)	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1-Dichloropropene	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Carbon tetrachloride	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2-Dichloroethane (EDC)	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Benzene	ND	0.0200		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Trichloroethene (TCE)	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2-Dichloropropane	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Bromodichloromethane	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Dibromomethane	ND	0.0143		mg/Kg-dry	1	8/12/2023 9:14:13 PM
cis-1,3-Dichloropropene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Toluene	ND	0.0343		mg/Kg-dry	1	8/12/2023 9:14:13 PM



# Analytical Report

Work Order: 2308151  
Date Reported: 8/28/2023

**Client:** GeoEngineers  
**Project:** S Jackson Street  
**Lab ID:** 2308151-012  
**Client Sample ID:** UST4-B-90

**Collection Date:** 8/9/2023 7:55:00 AM  
**Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166      Analyst: KJ

Trans-1,3-Dichloropropylene	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0687		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1,2-Trichloroethane	ND	0.0143		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,3-Dichloropropane	ND	0.0114		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Tetrachloroethene (PCE)	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Dibromochloromethane	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2-Dibromoethane (EDB)	ND	0.0114		mg/Kg-dry	1	8/12/2023 9:14:13 PM
2-Hexanone (MBK)	ND	0.0715		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Chlorobenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1,1,2-Tetrachloroethane	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Ethylbenzene	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
m,p-Xylene	ND	0.0572		mg/Kg-dry	1	8/12/2023 9:14:13 PM
o-Xylene	ND	0.0286		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Styrene	ND	0.0114		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Isopropylbenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Bromoform	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,1,2,2-Tetrachloroethane	ND	0.229	Q	mg/Kg-dry	1	8/12/2023 9:14:13 PM
n-Propylbenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Bromobenzene	ND	0.0143		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,3,5-Trimethylbenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
2-Chlorotoluene	ND	0.0189		mg/Kg-dry	1	8/12/2023 9:14:13 PM
4-Chlorotoluene	ND	0.0189		mg/Kg-dry	1	8/12/2023 9:14:13 PM
tert-Butylbenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2,3-Trichloropropane	ND	0.0343		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2,4-Trichlorobenzene	ND	0.0687		mg/Kg-dry	1	8/12/2023 9:14:13 PM
sec-Butylbenzene	ND	0.172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
4-Isopropyltoluene	ND	0.229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,3-Dichlorobenzene	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,4-Dichlorobenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
n-Butylbenzene	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2-Dichlorobenzene	ND	0.0229		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2-Dibromo-3-chloropropane	ND	0.0343		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2,4-Trimethylbenzene	ND	0.0172		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Hexachloro-1,3-butadiene	ND	0.0458		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Naphthalene	ND	0.114		mg/Kg-dry	1	8/12/2023 9:14:13 PM
1,2,3-Trichlorobenzene	ND	0.0687		mg/Kg-dry	1	8/12/2023 9:14:13 PM
Surr: Dibromofluoromethane	97.8	79.5 - 124		%Rec	1	8/12/2023 9:14:13 PM
Surr: Toluene-d8	97.3	77.5 - 124		%Rec	1	8/12/2023 9:14:13 PM
Surr: 1-Bromo-4-fluorobenzene	98.6	60.5 - 139		%Rec	1	8/12/2023 9:14:13 PM





# Analytical Report

Work Order: 2308151  
 Date Reported: 8/28/2023

**Client:** GeoEngineers

**Collection Date:** 8/9/2023 7:55:00 AM

**Project:** S Jackson Street

**Lab ID:** 2308151-012

**Matrix:** Soil

**Client Sample ID:** UST4-B-90

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 41166

Analyst: KJ

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

**Total Metals by EPA Method 6020B**

Batch ID: 41172

Analyst: JR

Lead	2.70	0.865		mg/Kg-dry	1	8/11/2023 2:04:00 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R85862

Analyst: MP

Percent Moisture	7.83	0.500		wt%	1	8/11/2023 8:39:11 AM
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**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020B**

Sample ID: <b>MB-41172</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85882</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41172</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792210</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	1.00									
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Sample ID: <b>2308095-013AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85882</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41172</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792214</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	148	0.820	20.51	172.8	-123	75	125				ES
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**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Sample ID: <b>2308095-013AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85882</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41172</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792215</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	164	0.845	21.13	172.8	-39.8	75	125	147.6	10.8	20	ES
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**NOTES:**

S/R - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected. High RPD observed.

Sample ID: <b>LCS-41172</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85882</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41172</b>		Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792813</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	26.6	1.00	25.00	0	106	80	120				
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Sample ID: <b>MB-41192</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85906</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41192</b>		Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792845</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	1.00									
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**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020B**

Sample ID: <b>LCS-41192</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85906</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41192</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1792846</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	2.18	0.794	1.984	0	110	80	120				

Sample ID: <b>2308151-006AMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85906</b>			
Client ID: <b>UST3-NSW-93</b>		Batch ID: <b>41192</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1792849</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.76	1.03	2.583	5.529	164	75	125				S

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Sample ID: <b>2308151-006AMSD</b>		SampType: <b>MSD</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85906</b>			
Client ID: <b>UST3-NSW-93</b>		Batch ID: <b>41192</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1792850</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.12	1.03	2.583	5.529	139	75	125	9.756	6.74	20	S

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Sample ID: <b>MB-41271</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/22/2023</b>		RunNo: <b>86088</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41271</b>				Analysis Date: <b>8/23/2023</b>		SeqNo: <b>1796352</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.00									

Sample ID: <b>LCS-41271</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/22/2023</b>		RunNo: <b>86088</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41271</b>				Analysis Date: <b>8/23/2023</b>		SeqNo: <b>1796353</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	23.3	0.800	20.00	0	116	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020B**

Sample ID: <b>CCV-41271A</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/23/2023</b>	RunNo: <b>86088</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41271</b>	Analysis Date: <b>8/23/2023</b>	SeqNo: <b>1796356</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	55.0	1.00	50.00	0	110	90	110				

Sample ID: <b>CCB-41271A</b>	SampType: <b>CCB</b>	Units: <b>µg/L</b>	Prep Date: <b>8/23/2023</b>	RunNo: <b>86088</b>							
Client ID: <b>CCB</b>	Batch ID: <b>41271</b>	Analysis Date: <b>8/23/2023</b>	SeqNo: <b>1796357</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.00									

Sample ID: <b>2308276-002AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/22/2023</b>	RunNo: <b>86088</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41271</b>	Analysis Date: <b>8/23/2023</b>	SeqNo: <b>1796358</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	25.4	0.923	23.07	1.666	103	75	125				

Sample ID: <b>2308276-002AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/22/2023</b>	RunNo: <b>86088</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41271</b>	Analysis Date: <b>8/23/2023</b>	SeqNo: <b>1796359</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	23.3	0.878	21.96	1.666	98.5	75	125	25.36	8.52	20	

Sample ID: <b>CCV-41271B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/23/2023</b>	RunNo: <b>86088</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41271</b>	Analysis Date: <b>8/23/2023</b>	SeqNo: <b>1796368</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	54.9	1.00	50.00	0	110	90	110				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020B**

Sample ID: <b>CCB-41271B</b>	SampType: <b>CCB</b>	Units: <b>µg/L</b>	Prep Date: <b>8/23/2023</b>	RunNo: <b>86088</b>							
Client ID: <b>CCB</b>	Batch ID: <b>41271</b>	Analysis Date: <b>8/23/2023</b>	SeqNo: <b>1796369</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	1.00									
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**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>DX-CCV-41170A</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85867</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1791935</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	484	50.0	500.0	0	96.7	85	115				
Surr: 2-Fluorobiphenyl	10.6		10.00		106	50	150				
Surr: o-Terphenyl	13.1		10.00		131	50	150				

Sample ID: <b>MB-41170</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85867</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1791936</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	10.4		10.00		104	50	150				
Surr: o-Terphenyl	10.6		10.00		106	50	150				

Sample ID: <b>LCS-41170</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85867</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1791937</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	520	150	500.0	0	104	76.8	124				
Surr: 2-Fluorobiphenyl	9.23		10.00		92.3	50	150				
Surr: o-Terphenyl	12.0		10.00		120	50	150				

Sample ID: <b>2308151-002ADUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85867</b>			
Client ID: <b>UST2-NSW-93</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1791941</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	57.0						0		30	
Heavy Oil	ND	114						0		30	
Total Petroleum Hydrocarbons	ND	171						0		30	
Surr: 2-Fluorobiphenyl	11.8		11.39		104	50	150		0		

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>2308151-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85867</b>				
Client ID: <b>UST2-NSW-93</b>	Batch ID: <b>41170</b>					Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1791941</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	11.9		11.39		105	50	150		0		

Sample ID: <b>DX-CCV-41170B</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85867</b>				
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>					Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1791948</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	488	50.0	500.0	0	97.6	85	115				
Surr: 2-Fluorobiphenyl	11.1		10.00		111	50	150				
Surr: o-Terphenyl	13.1		10.00		131	50	150				

Sample ID: <b>2308139-001AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85867</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>41170</b>					Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1791957</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	561	157	524.1	54.61	96.6	21.8	165				
Surr: 2-Fluorobiphenyl	9.11		10.48		86.9	50	150				
Surr: o-Terphenyl	12.5		10.48		119	50	150				

Sample ID: <b>2308139-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85867</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>41170</b>					Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1791958</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	578	157	524.1	54.61	99.9	21.8	165	561.0	2.99	30	
Surr: 2-Fluorobiphenyl	9.46		10.48		90.2	50	150		0		
Surr: o-Terphenyl	12.5		10.48		120	50	150		0		

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID: <b>DX-CCV-41170D</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/11/2023</b>	RunNo: <b>85867</b>					
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>				Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1791971</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	551	50.0	500.0	0	110	85	115				
Surr: 2-Fluorobiphenyl	10.4		10.00		104	50	150				
Surr: o-Terphenyl	14.1		10.00		141	50	150				



**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>CCV-41173A</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85910</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41173</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1793000</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,010	20.0	1,000	0	101	80	120				
2-Methylnaphthalene	936	20.0	1,000	0	93.6	80	120				
1-Methylnaphthalene	971	20.0	1,000	0	97.1	80	120				
Acenaphthylene	922	20.0	1,000	0	92.2	80	120				
Acenaphthene	1,020	20.0	1,000	0	102	80	120				
Fluorene	961	20.0	1,000	0	96.1	80	120				
Phenanthrene	961	20.0	1,000	0	96.1	80	120				
Anthracene	968	20.0	1,000	0	96.8	80	120				
Fluoranthene	1,030	20.0	1,000	0	103	80	120				
Pyrene	996	40.0	1,000	0	99.6	80	120				
Benz(a)anthracene	981	20.0	1,000	0	98.1	80	120				
Chrysene	983	20.0	1,000	0	98.3	80	120				
Benzo(b)fluoranthene	967	25.0	1,000	0	96.7	80	120				
Benzo(k)fluoranthene	978	25.0	1,000	0	97.8	80	120				
Benzo(a)pyrene	1,020	30.0	1,000	0	102	80	120				
Indeno(1,2,3-cd)pyrene	943	40.0	1,000	0	94.3	80	120				
Dibenz(a,h)anthracene	941	50.0	1,000	0	94.1	80	120				
Benzo(g,h,i)perylene	937	50.0	1,000	0	93.7	80	120				
Surr: 2-Fluorobiphenyl	487		500.0		97.4	69.5	150				
Surr: Terphenyl-d14 (surr)	535		500.0		107	71.6	145				

Sample ID: <b>MB-41173</b>		SampType: <b>MBLK</b>		Units: <b>µg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85910</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41173</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1793001</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Acenaphthylene	ND	20.0									
Acenaphthene	ND	20.0									
Fluorene	ND	20.0									

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>MB-41173</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85910</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41173</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1793001</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	ND	20.0									
Anthracene	ND	20.0									
Fluoranthene	ND	20.0									
Pyrene	ND	40.0									
Benz(a)anthracene	ND	20.0									
Chrysene	ND	20.0									
Benzo(b)fluoranthene	ND	25.0									
Benzo(k)fluoranthene	ND	25.0									
Benzo(a)pyrene	ND	30.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	50.0									
Benzo(g,h,i)perylene	ND	50.0									
Surr: 2-Fluorobiphenyl	1,020		1,000		102	22.2	146				
Surr: Terphenyl-d14 (surr)	1,220		1,000		122	20.2	159				

Sample ID: <b>LCS-41173</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85910</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41173</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1793002</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,090	20.0	2,000	0	104	59.3	114				
2-Methylnaphthalene	1,980	20.0	2,000	0	99.2	55.5	115				
1-Methylnaphthalene	2,020	20.0	2,000	0	101	57.2	116				
Acenaphthylene	2,040	20.0	2,000	0	102	58.2	120				
Acenaphthene	2,140	20.0	2,000	0	107	56.6	114				
Fluorene	2,080	20.0	2,000	0	104	57.7	117				
Phenanthrene	2,090	20.0	2,000	0	104	53.2	118				
Anthracene	2,170	20.0	2,000	0	109	54.7	118				
Fluoranthene	2,330	20.0	2,000	0	117	56	120				
Pyrene	2,280	40.0	2,000	0	114	56.9	120				
Benz(a)anthracene	2,240	20.0	2,000	0	112	59.5	123				
Chrysene	2,290	20.0	2,000	0	115	51.5	115				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
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## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>LCS-41173</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85910</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41173</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1793002</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	2,200	25.0	2,000	0	110	50	122				
Benzo(k)fluoranthene	2,270	25.0	2,000	0	113	51	117				
Benzo(a)pyrene	2,470	30.0	2,000	0	124	53.2	123				S
Indeno(1,2,3-cd)pyrene	2,110	40.0	2,000	0	105	49.5	122				
Dibenz(a,h)anthracene	2,130	50.0	2,000	0	106	51	120				
Benzo(g,h,i)perylene	2,080	50.0	2,000	0	104	46.8	122				
Surr: 2-Fluorobiphenyl	1,180		1,000		118	22.2	146				
Surr: Terphenyl-d14 (surr)	1,370		1,000		137	20.2	159				

**NOTES:**

S - Outlying spike recovery observed (high bias). Samples are non-detect; result meets QC requirements.

Sample ID: <b>2308151-012AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85910</b>							
Client ID: <b>UST4-B-90</b>	Batch ID: <b>41173</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1793008</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,250	20.5	2,049	0	110	48.9	121				
2-Methylnaphthalene	2,120	20.5	2,049	0	103	45.9	118				
1-Methylnaphthalene	2,160	20.5	2,049	0	106	48.5	121				
Acenaphthylene	2,210	20.5	2,049	0	108	49.2	126				
Acenaphthene	2,290	20.5	2,049	0	112	46	122				
Fluorene	2,250	20.5	2,049	0	110	49	123				
Phenanthrene	2,250	20.5	2,049	0	110	40.5	126				
Anthracene	2,350	20.5	2,049	0	115	46.3	124				
Fluoranthene	2,510	20.5	2,049	0	123	49.1	129				
Pyrene	2,450	41.0	2,049	0	119	48.8	130				
Benz(a)anthracene	2,390	20.5	2,049	0	117	53.9	130				
Chrysene	2,430	20.5	2,049	0	118	41.2	126				
Benzo(b)fluoranthene	2,370	25.6	2,049	0	116	37.2	132				
Benzo(k)fluoranthene	2,420	25.6	2,049	0	118	32.8	131				
Benzo(a)pyrene	2,660	30.7	2,049	0	130	28.8	145				
Indeno(1,2,3-cd)pyrene	2,250	41.0	2,049	0	110	3.36	151				
Dibenz(a,h)anthracene	2,270	51.2	2,049	0	111	6.99	152				

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**CLIENT:** GeoEngineers  
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## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>2308151-012AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85910</b>							
Client ID: <b>UST4-B-90</b>	Batch ID: <b>41173</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1793008</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	2,220	51.2	2,049	0	108	5.86	143				
Surr: 2-Fluorobiphenyl	1,210		1,025		119	22.2	146				
Surr: Terphenyl-d14 (surr)	1,420		1,025		138	20.2	159				

Sample ID: <b>2308151-012AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85910</b>							
Client ID: <b>UST4-B-90</b>	Batch ID: <b>41173</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1793009</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,210	20.5	2,049	0	108	48.9	121	2,249	1.58	30	
2-Methylnaphthalene	2,090	20.5	2,049	0	102	45.9	118	2,120	1.27	30	
1-Methylnaphthalene	2,130	20.5	2,049	0	104	48.5	121	2,162	1.26	30	
Acenaphthylene	2,170	20.5	2,049	0	106	49.2	126	2,212	2.06	30	
Acenaphthene	2,270	20.5	2,049	0	111	46	122	2,288	0.908	30	
Fluorene	2,230	20.5	2,049	0	109	49	123	2,252	0.893	30	
Phenanthrene	2,240	20.5	2,049	0	109	40.5	126	2,246	0.257	30	
Anthracene	2,310	20.5	2,049	0	113	46.3	124	2,353	1.74	30	
Fluoranthene	2,470	20.5	2,049	0	121	49.1	129	2,511	1.47	30	
Pyrene	2,410	41.0	2,049	0	118	48.8	130	2,445	1.33	30	
Benz(a)anthracene	2,360	20.5	2,049	0	115	53.9	130	2,390	1.09	30	
Chrysene	2,410	20.5	2,049	0	117	41.2	126	2,425	0.746	30	
Benzo(b)fluoranthene	2,370	25.6	2,049	0	116	37.2	132	2,369	0.137	30	
Benzo(k)fluoranthene	2,370	25.6	2,049	0	116	32.8	131	2,424	2.04	30	
Benzo(a)pyrene	2,640	30.7	2,049	0	129	28.8	145	2,661	0.683	30	
Indeno(1,2,3-cd)pyrene	2,230	41.0	2,049	0	109	3.36	151	2,255	1.04	30	
Dibenz(a,h)anthracene	2,240	51.2	2,049	0	109	6.99	152	2,269	1.50	30	
Benzo(g,h,i)perylene	2,200	51.2	2,049	0	107	5.86	143	2,220	1.06	30	
Surr: 2-Fluorobiphenyl	1,210		1,025		118	22.2	146		0		
Surr: Terphenyl-d14 (surr)	1,400		1,025		137	20.2	159		0		

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>CCV-41191A</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85903</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41191</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1792816</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,110	20.0	1,000	0	111	80	120				
2-Methylnaphthalene	964	20.0	1,000	0	96.4	80	120				
1-Methylnaphthalene	965	20.0	1,000	0	96.5	80	120				
Acenaphthene	1,120	20.0	1,000	0	112	80	120				
Acenaphthylene	923	20.0	1,000	0	92.3	80	120				
Phenanthrene	1,080	20.0	1,000	0	108	80	120				
Fluorene	1,060	20.0	1,000	0	106	80	120				
Anthracene	1,060	20.0	1,000	0	106	80	120				
Fluoranthene	1,150	20.0	1,000	0	115	80	120				
Pyrene	1,110	40.0	1,000	0	111	80	120				
Benz(a)anthracene	1,100	20.0	1,000	0	110	80	120				
Chrysene	1,150	20.0	1,000	0	115	80	120				
Benzo(b)fluoranthene	1,140	25.0	1,000	0	114	80	120				
Benzo(k)fluoranthene	1,130	25.0	1,000	0	113	80	120				
Benzo(a)pyrene	1,180	30.0	1,000	0	118	80	120				
Indeno(1,2,3-cd)pyrene	1,100	40.0	1,000	0	110	80	120				
Dibenz(a,h)anthracene	1,090	50.0	1,000	0	109	80	120				
Benzo(g,h,i)perylene	1,110	50.0	1,000	0	111	80	120				
Surr: 2,4,6-Tribromophenol	1,270		1,000		127	14	136				
Surr: 2-Fluorobiphenyl	496		500.0		99.2	69.5	150				
Surr: Terphenyl-d14 (surr)	595		500.0		119	71.6	145				

Sample ID: <b>MB-41191</b>		SampType: <b>MBLK</b>		Units: <b>µg/Kg</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85903</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41191</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1792817</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Acenaphthene	ND	20.0									
Acenaphthylene	ND	20.0									

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>MB-41191</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85903</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41191</b>		Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792817</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	ND	20.0									
Fluorene	ND	20.0									
Anthracene	ND	20.0									
Fluoranthene	ND	20.0									
Pyrene	ND	40.0									
Benz(a)anthracene	ND	20.0									
Chrysene	ND	20.0									
Benzo(b)fluoranthene	ND	25.0									
Benzo(k)fluoranthene	ND	25.0									
Benzo(a)pyrene	ND	30.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	50.0									
Benzo(g,h,i)perylene	ND	50.0									
Surr: 2-Fluorobiphenyl	1,010		1,000		101	22.2	146				
Surr: Terphenyl-d14 (surr)	1,270		1,000		127	20.2	159				

Sample ID: <b>LCS-41191</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85903</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41191</b>		Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792818</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,960	20.0	2,000	0	98.2	59.3	114				
2-Methylnaphthalene	1,870	20.0	2,000	0	93.5	55.5	115				
1-Methylnaphthalene	1,890	20.0	2,000	0	94.3	57.2	116				
Acenaphthene	2,020	20.0	2,000	0	101	56.6	114				
Acenaphthylene	1,920	20.0	2,000	0	95.8	58.2	120				
Phenanthrene	1,970	20.0	2,000	0	98.5	53.2	118				
Fluorene	1,950	20.0	2,000	0	97.5	57.7	117				
Anthracene	1,990	20.0	2,000	0	99.4	54.7	118				
Fluoranthene	2,140	20.0	2,000	0	107	56	120				
Pyrene	2,100	40.0	2,000	0	105	56.9	120				
Benz(a)anthracene	2,070	20.0	2,000	0	103	59.5	123				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>LCS-41191</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>8/14/2023</b>	RunNo: <b>85903</b>				
Client ID: <b>LCSS</b>	Batch ID: <b>41191</b>					Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792818</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	2,110	20.0	2,000	0	106	51.5	115				
Benzo(b)fluoranthene	2,020	25.0	2,000	0	101	50	122				
Benzo(k)fluoranthene	2,100	25.0	2,000	0	105	51	117				
Benzo(a)pyrene	2,250	30.0	2,000	0	112	53.2	123				
Indeno(1,2,3-cd)pyrene	1,990	40.0	2,000	0	99.5	49.5	122				
Dibenz(a,h)anthracene	2,000	50.0	2,000	0	99.9	51	120				
Benzo(g,h,i)perylene	2,000	50.0	2,000	0	100	46.8	122				
Surr: 2-Fluorobiphenyl	1,140		1,000		114	22.2	146				
Surr: Terphenyl-d14 (surr)	1,290		1,000		129	20.2	159				

Sample ID: <b>2308174-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>				Prep Date: <b>8/14/2023</b>	RunNo: <b>85903</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>41191</b>					Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792821</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,070	20.2	2,017	62.03	99.6	48.9	121				
2-Methylnaphthalene	2,210	20.2	2,017	187.6	100	45.9	118				
1-Methylnaphthalene	2,160	20.2	2,017	160.3	99.1	48.5	121				
Acenaphthene	2,080	20.2	2,017	0	103	46	122				
Acenaphthylene	1,980	20.2	2,017	0	98.4	49.2	126				
Phenanthrene	2,180	20.2	2,017	174.7	99.3	40.5	126				
Fluorene	2,010	20.2	2,017	54.18	97.0	49	123				
Anthracene	2,010	20.2	2,017	14.12	99.0	46.3	124				
Fluoranthene	2,370	20.2	2,017	117.3	112	49.1	129				
Pyrene	2,270	40.3	2,017	131.1	106	48.8	130				
Benz(a)anthracene	2,320	20.2	2,017	67.67	112	53.9	130				
Chrysene	2,100	20.2	2,017	87.63	99.7	41.2	126				
Benzo(b)fluoranthene	2,210	25.2	2,017	0	109	37.2	132				
Benzo(k)fluoranthene	2,130	25.2	2,017	0	106	32.8	131				
Benzo(a)pyrene	2,370	30.2	2,017	85.49	113	28.8	145				
Indeno(1,2,3-cd)pyrene	1,830	40.3	2,017	29.21	89.3	3.36	151				
Dibenz(a,h)anthracene	1,830	50.4	2,017	0	90.6	6.99	152				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>2308174-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85903</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41191</b>	Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792821</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	1,640	50.4	2,017	48.98	79.1	5.86	143				
Surr: 2-Fluorobiphenyl	1,180		1,008		117	22.2	146				
Surr: Terphenyl-d14 (surr)	1,330		1,008		131	20.2	159				

Sample ID: <b>2308174-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85903</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41191</b>	Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792822</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,150	20.2	2,017	62.03	104	48.9	121	2,071	3.97	30	
2-Methylnaphthalene	2,310	20.2	2,017	187.6	105	45.9	118	2,210	4.27	30	
1-Methylnaphthalene	2,260	20.2	2,017	160.3	104	48.5	121	2,159	4.59	30	
Acenaphthene	2,180	20.2	2,017	0	108	46	122	2,078	4.66	30	
Acenaphthylene	2,060	20.2	2,017	0	102	49.2	126	1,984	3.96	30	
Phenanthrene	2,290	20.2	2,017	174.7	105	40.5	126	2,176	5.23	30	
Fluorene	2,140	20.2	2,017	54.18	103	49	123	2,011	6.10	30	
Anthracene	2,110	20.2	2,017	14.12	104	46.3	124	2,011	4.58	30	
Fluoranthene	2,480	20.2	2,017	117.3	117	49.1	129	2,366	4.76	30	
Pyrene	2,380	40.3	2,017	131.1	111	48.8	130	2,273	4.50	30	
Benz(a)anthracene	2,440	20.2	2,017	67.67	118	53.9	130	2,319	5.14	30	
Chrysene	2,200	20.2	2,017	87.63	105	41.2	126	2,098	4.52	30	
Benzo(b)fluoranthene	2,320	25.2	2,017	0	115	37.2	132	2,205	4.87	30	
Benzo(k)fluoranthene	2,180	25.2	2,017	0	108	32.8	131	2,129	2.20	30	
Benzo(a)pyrene	2,420	30.2	2,017	85.49	116	28.8	145	2,370	2.12	30	
Indeno(1,2,3-cd)pyrene	1,710	40.3	2,017	29.21	83.6	3.36	151	1,831	6.59	30	
Dibenz(a,h)anthracene	1,740	50.4	2,017	0	86.3	6.99	152	1,827	4.86	30	
Benzo(g,h,i)perylene	1,480	50.4	2,017	48.98	71.2	5.86	143	1,644	10.2	30	
Surr: 2-Fluorobiphenyl	1,210		1,008		120	22.2	146		0		
Surr: Terphenyl-d14 (surr)	1,360		1,008		135	20.2	159		0		



**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>CCV-41251A</b>	SampType: <b>CCV</b>	Units: <b>%Rec</b>	Prep Date: <b>8/21/2023</b>	RunNo: <b>86059</b>							
Client ID: <b>CCV</b>	Batch ID: <b>R86059</b>		Analysis Date: <b>8/21/2023</b>	SeqNo: <b>1795760</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	1,220		1,000		122	14	136				
Surr: 2-Fluorobiphenyl	434		500.0		86.8	69.5	150				
Surr: Terphenyl-d14 (surr)	469		500.0		93.9	71.6	145				

Sample ID: <b>MB-41251</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>	Prep Date: <b>8/21/2023</b>	RunNo: <b>86059</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41251</b>		Analysis Date: <b>8/21/2023</b>	SeqNo: <b>1795761</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Acenaphthene	ND	20.0									
Acenaphthylene	ND	20.0									
Phenanthrene	ND	20.0									
Fluorene	ND	20.0									
Anthracene	ND	20.0									
Fluoranthene	ND	20.0									
Pyrene	ND	40.0									
Benz(a)anthracene	ND	20.0									
Chrysene	ND	20.0									
Benzo(b)fluoranthene	ND	25.0									
Benzo(k)fluoranthene	ND	25.0									
Benzo(a)pyrene	ND	30.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	50.0									
Benzo(g,h,i)perylene	ND	50.0									
Surr: 2-Fluorobiphenyl	912		1,000		91.2	22.2	146				
Surr: Terphenyl-d14 (surr)	865		1,000		86.5	20.2	159				

Work Order: 2308151  
 CLIENT: GeoEngineers  
 Project: S Jackson Street

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>LCS-41251</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>8/21/2023</b>	RunNo: <b>86059</b>				
Client ID: <b>LCSS</b>	Batch ID: <b>41251</b>					Analysis Date: <b>8/21/2023</b>	SeqNo: <b>1795762</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,750	20.0	2,000	0	87.7	59.3	114				
2-Methylnaphthalene	1,690	20.0	2,000	0	84.7	55.5	115				
1-Methylnaphthalene	1,700	20.0	2,000	0	84.8	57.2	116				
Acenaphthene	1,720	20.0	2,000	0	86.0	56.6	114				
Acenaphthylene	1,830	20.0	2,000	0	91.6	58.2	120				
Phenanthrene	1,660	20.0	2,000	0	83.0	53.2	118				
Fluorene	1,700	20.0	2,000	0	85.0	57.7	117				
Anthracene	1,670	20.0	2,000	0	83.3	54.7	118				
Fluoranthene	1,650	20.0	2,000	0	82.3	56	120				
Pyrene	1,680	40.0	2,000	0	84.1	56.9	120				
Benz(a)anthracene	1,610	20.0	2,000	0	80.5	59.5	123				
Chrysene	1,710	20.0	2,000	0	85.6	51.5	115				
Benzo(b)fluoranthene	1,640	25.0	2,000	0	81.9	50	122				
Benzo(k)fluoranthene	1,730	25.0	2,000	0	86.6	51	117				
Benzo(a)pyrene	1,850	30.0	2,000	0	92.4	53.2	123				
Indeno(1,2,3-cd)pyrene	1,610	40.0	2,000	0	80.7	49.5	122				
Dibenz(a,h)anthracene	1,620	50.0	2,000	0	81.0	51	120				
Benzo(g,h,i)perylene	1,630	50.0	2,000	0	81.5	46.8	122				
Surr: 2-Fluorobiphenyl	973		1,000		97.3	22.2	146				
Surr: Terphenyl-d14 (surr)	927		1,000		92.7	20.2	159				

Sample ID: <b>2308151-002AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>				Prep Date: <b>8/21/2023</b>	RunNo: <b>86059</b>				
Client ID: <b>UST2-NSW-93</b>	Batch ID: <b>41251</b>					Analysis Date: <b>8/21/2023</b>	SeqNo: <b>1795764</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,300	21.9	2,185	34.87	57.7	48.9	121				
2-Methylnaphthalene	1,220	21.9	2,185	48.24	53.4	45.9	118				
1-Methylnaphthalene	1,230	21.9	2,185	25.59	55.0	48.5	121				
Acenaphthene	1,240	21.9	2,185	0	56.7	46	122				
Acenaphthylene	1,260	21.9	2,185	0	57.8	49.2	126				
Phenanthrene	1,180	21.9	2,185	0	54.2	40.5	126				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	1,220	21.9	2,185	0	55.9	49	123				
Anthracene	1,170	21.9	2,185	0	53.5	46.3	124				
Fluoranthene	1,150	21.9	2,185	0	52.9	49.1	129				
Pyrene	1,190	43.7	2,185	0	54.4	48.8	130				
Benz(a)anthracene	1,130	21.9	2,185	0	51.6	53.9	130				S
Chrysene	1,220	21.9	2,185	0	55.6	41.2	126				
Benzo(b)fluoranthene	1,180	27.3	2,185	0	53.9	37.2	132				
Benzo(k)fluoranthene	1,180	27.3	2,185	0	54.1	32.8	131				
Benzo(a)pyrene	1,300	32.8	2,185	0	59.6	28.8	145				
Indeno(1,2,3-cd)pyrene	1,150	43.7	2,185	0	52.8	3.36	151				
Dibenz(a,h)anthracene	1,140	54.6	2,185	0	52.2	6.99	152				
Benzo(g,h,i)perylene	1,140	54.6	2,185	0	52.1	5.86	143				
Surr: 2-Fluorobiphenyl	563		1,093		51.5	22.2	146				
Surr: Terphenyl-d14 (surr)	543		1,093		49.7	20.2	159				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,050	21.9	2,193	34.87	46.1	48.9	121	1,296	21.3	30	S
2-Methylnaphthalene	963	21.9	2,193	48.24	41.7	45.9	118	1,216	23.2	30	S
1-Methylnaphthalene	979	21.9	2,193	25.59	43.5	48.5	121	1,228	22.5	30	S
Acenaphthene	1,010	21.9	2,193	0	45.9	46	122	1,238	20.6	30	S
Acenaphthylene	1,010	21.9	2,193	0	45.9	49.2	126	1,262	22.5	30	S
Phenanthrene	965	21.9	2,193	0	44.0	40.5	126	1,185	20.5	30	
Fluorene	990	21.9	2,193	0	45.1	49	123	1,222	21.0	30	S
Anthracene	937	21.9	2,193	0	42.7	46.3	124	1,170	22.1	30	S
Fluoranthene	919	21.9	2,193	0	41.9	49.1	129	1,155	22.7	30	S
Pyrene	815	43.9	2,193	0	37.2	48.8	130	1,190	37.4	30	RS
Benz(a)anthracene	907	21.9	2,193	0	41.4	53.9	130	1,126	21.6	30	S

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>2308151-002AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>8/21/2023</b>	RunNo: <b>86059</b>							
Client ID: <b>UST2-NSW-93</b>	Batch ID: <b>41251</b>	Analysis Date: <b>8/21/2023</b>	SeqNo: <b>1795765</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	981	21.9	2,193	0	44.7	41.2	126	1,215	21.3	30	
Benzo(b)fluoranthene	850	27.4	2,193	0	38.7	37.2	132	1,177	32.3	30	R
Benzo(k)fluoranthene	894	27.4	2,193	0	40.8	32.8	131	1,182	27.7	30	
Benzo(a)pyrene	944	32.9	2,193	0	43.0	28.8	145	1,302	31.9	30	R
Indeno(1,2,3-cd)pyrene	1,020	43.9	2,193	0	46.3	3.36	151	1,153	12.7	30	
Dibenz(a,h)anthracene	1,000	54.8	2,193	0	45.7	6.99	152	1,142	13.0	30	
Benzo(g,h,i)perylene	996	54.8	2,193	0	45.4	5.86	143	1,138	13.3	30	
Surr: 2-Fluorobiphenyl	462		1,097		42.1	22.2	146		0		
Surr: Terphenyl-d14 (surr)	407		1,097		37.1	20.2	159		0		

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

R - High RPD observed.

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polychlorinated Biphenyls (PCB) by EPA Method 8082

Sample ID: <b>1660-CCV-41176A</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85892</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41176</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792486</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.967	0.0200	1.000	0	96.7	80	120				
Aroclor 1260	0.942	0.0200	1.000	0	94.2	80	120				
Surr: Decachlorobiphenyl	207		200.0		103	30.2	155				
Surr: Tetrachloro-m-xylene	191		200.0		95.3	58.8	143				

Sample ID: <b>MB-41176</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85892</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41176</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792487</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0200									
Aroclor 1221	ND	0.0200									
Aroclor 1232	ND	0.0200									
Aroclor 1242	ND	0.0200									
Aroclor 1248	ND	0.0200									
Aroclor 1254	ND	0.0200									
Aroclor 1260	ND	0.0200									
Aroclor 1262	ND	0.0200									
Aroclor 1268	ND	0.0200									
Total PCBs	ND	0.0200									
Surr: Decachlorobiphenyl	141		200.0		70.4	5	160				
Surr: Tetrachloro-m-xylene	231		200.0		115	57.3	159				

Sample ID: <b>LCS-41176</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85892</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41176</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792488</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.956	0.0200	1.000	0	95.6	67.1	142				
Aroclor 1260	0.883	0.0200	1.000	0	88.3	71	140				
Surr: Decachlorobiphenyl	108		200.0		54.0	5	160				
Surr: Tetrachloro-m-xylene	185		200.0		92.7	57.3	159				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polychlorinated Biphenyls (PCB) by EPA Method 8082

Sample ID: <b>2308151-009AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85892</b>							
Client ID: <b>UST3-B-90</b>	Batch ID: <b>41176</b>	Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792504</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.908	0.0221	1.105	0	82.2	64.1	141				
Aroclor 1260	0.757	0.0221	1.105	0	68.5	51.1	146				
Surr: Decachlorobiphenyl	85.2		221.0		38.6	5	160				
Surr: Tetrachloro-m-xylene	177		221.0		80.0	57.3	159				

Sample ID: <b>2308151-009AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85892</b>							
Client ID: <b>UST3-B-90</b>	Batch ID: <b>41176</b>	Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792505</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.870	0.0221	1.103	0	78.9	64.1	141	0.9085	4.27	30	
Aroclor 1260	0.712	0.0221	1.103	0	64.6	51.1	146	0.7572	6.14	30	
Surr: Decachlorobiphenyl	84.9		220.6		38.5	5	160		0		
Surr: Tetrachloro-m-xylene	161		220.6		72.8	57.3	159		0		

Sample ID: <b>1660-CCV-41197A</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85931</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41197</b>	Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1793366</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.992	0.0200	1.000	0	99.2	80	120				
Aroclor 1260	0.928	0.0200	1.000	0	92.8	80	120				
Surr: Decachlorobiphenyl	97.9		200.0		48.9	30.2	155				
Surr: Tetrachloro-m-xylene	193		200.0		96.4	58.8	143				

Sample ID: <b>MB-41197</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85931</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41197</b>	Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1793367</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0200									
Aroclor 1221	ND	0.0200									
Aroclor 1232	ND	0.0200									

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polychlorinated Biphenyls (PCB) by EPA Method 8082

Sample ID: <b>MB-41197</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85931</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41197</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1793367</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1242	ND	0.0200									
Aroclor 1248	ND	0.0200									
Aroclor 1254	ND	0.0200									
Aroclor 1260	ND	0.0200									
Aroclor 1262	ND	0.0200									
Aroclor 1268	ND	0.0200									
Total PCBs	ND	0.0200									
Surr: Decachlorobiphenyl	103		200.0		51.4	5	160				
Surr: Tetrachloro-m-xylene	204		200.0		102	57.3	159				

Sample ID: <b>LCS-41197</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85931</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41197</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1793368</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.08	0.0200	1.000	0	108	67.1	142				
Aroclor 1260	0.998	0.0200	1.000	0	99.8	71	140				
Surr: Decachlorobiphenyl	106		200.0		52.8	5	160				
Surr: Tetrachloro-m-xylene	205		200.0		103	57.3	159				

Sample ID: <b>2308151-006AMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/14/2023</b>		RunNo: <b>85931</b>			
Client ID: <b>UST3-NSW-93</b>		Batch ID: <b>41197</b>				Analysis Date: <b>8/14/2023</b>		SeqNo: <b>1793370</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.36	0.0253	1.265	0	107	64.1	141				
Aroclor 1260	1.29	0.0253	1.265	0	102	51.1	146				
Surr: Decachlorobiphenyl	73.4		253.0		29.0	5	160				
Surr: Tetrachloro-m-xylene	156		253.0		61.7	57.3	159				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Polychlorinated Biphenyls (PCB) by EPA Method 8082

Sample ID: <b>2308151-006AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>8/14/2023</b>	RunNo: <b>85931</b>					
Client ID: <b>UST3-NSW-93</b>	Batch ID: <b>41197</b>				Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1793371</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.38	0.0253	1.264	0	109	64.1	141	1.357	1.69	30	
Aroclor 1260	1.31	0.0253	1.264	0	104	51.1	146	1.288	1.69	30	
Surr: Decachlorobiphenyl	77.3		252.7		30.6	5	160		0		
Surr: Tetrachloro-m-xylene	167		252.7		66.0	57.3	159		0		

Sample ID: <b>1660-CCV-41197C</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/15/2023</b>	RunNo: <b>85931</b>					
Client ID: <b>CCV</b>	Batch ID: <b>41197</b>				Analysis Date: <b>8/15/2023</b>	SeqNo: <b>1793444</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.19	0.0200	1.000	0	119	80	120				
Aroclor 1260	1.17	0.0200	1.000	0	117	80	120				
Surr: Decachlorobiphenyl	127		200.0		63.3	30.2	155				
Surr: Tetrachloro-m-xylene	228		200.0		114	58.8	143				



**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>CCV-41166A</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85905</b>					
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792909</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	442	5.00	500.0	0	88.4	80	120				
Surr: Toluene-d8	25.1		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	24.8		25.00		99.2	65	135				

Sample ID: <b>MB-41166</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85905</b>					
Client ID: <b>MBLKS</b>	Batch ID: <b>41166</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792914</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.25		1.250		99.8	65	135				

Sample ID: <b>LCS-41178</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85880</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>41178</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792151</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	22.0	5.00	25.00	0	87.9	65	135				
Surr: Toluene-d8	1.25		1.250		99.7	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.1	65	135				

Sample ID: <b>CCV-41178A</b>	SampType: <b>CCV</b>	Units: <b>%Rec</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85880</b>					
Client ID: <b>CCV</b>	Batch ID: <b>R85880</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792148</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	24.9		25.00		99.7	65	135				
Surr: 4-Bromofluorobenzene	24.8		25.00		99.1	65	135				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>MB-41178</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85880</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41178</b>				Analysis Date: <b>8/11/2023</b>		SeqNo: <b>1792150</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.25		1.250		99.9	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.0	65	135				

Sample ID: <b>2308159-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85880</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>41178</b>				Analysis Date: <b>8/11/2023</b>		SeqNo: <b>1792138</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	71.5						0		30	D
Surr: Toluene-d8	17.9		17.87		100	65	135		0		D
Surr: 4-Bromofluorobenzene	17.7		17.87		99.3	65	135		0		D

Sample ID: <b>2308159-002BMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85880</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>41178</b>				Analysis Date: <b>8/11/2023</b>		SeqNo: <b>1792141</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	555	66.1	330.5	149.1	123	65	135				D
Surr: Toluene-d8	16.4		16.52		99.3	65	135				D
Surr: 4-Bromofluorobenzene	16.2		16.52		97.8	65	135				D

Sample ID: <b>CCV-41166C</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/12/2023</b>		RunNo: <b>85905</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41166</b>				Analysis Date: <b>8/12/2023</b>		SeqNo: <b>1792905</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	515	5.00	500.0	0	103	80	120				
Surr: Toluene-d8	24.9		25.00		99.6	65	135				
Surr: 4-Bromofluorobenzene	24.2		25.00		96.9	65	135				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Gasoline by NWTPH-Gx

Sample ID: <b>LCS-41166</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85905</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792933</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	25.8	5.00	25.00	0	103	65	135				
Surr: Toluene-d8	1.25		1.250		99.6	65	135				
Surr: 4-Bromofluorobenzene	1.21		1.250		96.9	65	135				

Sample ID: <b>2308044-014BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85905</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792891</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	ND	5.57						0		30	
Surr: Toluene-d8	1.38		1.393		99.0	65	135		0		
Surr: 4-Bromofluorobenzene	1.36		1.393		98.0	65	135		0		

Sample ID: <b>2308044-023BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85905</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792893</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	ND	6.60						0		30	
Surr: Toluene-d8	1.65		1.651		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.62		1.651		98.2	65	135		0		

Sample ID: <b>2308111-001BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85905</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792895</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	32.5	5.30	26.50	5.741	101	65	135				
Surr: Toluene-d8	1.32		1.325		99.5	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.325		96.6	65	135				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>CCV-41166E</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85905</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1793078</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	459	5.00	500.0	0	91.9	80	120				
Surr: Toluene-d8	24.6		25.00		98.5	65	135				
Surr: 4-Bromofluorobenzene	24.2		25.00		96.7	65	135				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41178A</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>				
Client ID: <b>CCV</b>	Batch ID: <b>41178</b>					Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792084</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	20.6	0.0150	20.00	0	103	80	120				
Chloromethane	18.3	0.0500	20.00	0	91.4	80	120				
Vinyl chloride	19.0	0.0250	20.00	0	95.1	80	120				
Bromomethane	18.8	0.0250	20.00	0	93.9	80	120				
Trichlorofluoromethane (CFC-11)	20.5	0.0200	20.00	0	103	80	120				
Chloroethane	21.4	0.0750	20.00	0	107	80	120				
1,1-Dichloroethene	18.9	0.100	20.00	0	94.7	80	120				
Acetone	47.2	0.250	50.00	0	94.4	80	120				
Methylene chloride	19.0	0.0350	20.00	0	95.0	80	120				
trans-1,2-Dichloroethene	19.5	0.0100	20.00	0	97.5	80	120				
Methyl tert-butyl ether (MTBE)	19.9	0.0200	20.00	0	99.3	80	120				
1,1-Dichloroethane	19.3	0.0250	20.00	0	96.3	80	120				
cis-1,2-Dichloroethene	19.3	0.0150	20.00	0	96.6	80	120				
(MEK) 2-Butanone	48.0	0.300	50.00	0	96.0	80	120				
Chloroform	20.3	0.0175	20.00	0	101	80	120				
1,1,1-Trichloroethane (TCA)	20.1	0.0200	20.00	0	101	80	120				
1,1-Dichloropropene	19.7	0.0200	20.00	0	98.6	80	120				
Carbon tetrachloride	20.7	0.0250	20.00	0	104	80	120				
1,2-Dichloroethane (EDC)	20.0	0.0200	20.00	0	99.9	80	120				
Benzene	19.4	0.0175	20.00	0	97.1	80	120				
Trichloroethene (TCE)	19.0	0.0150	20.00	0	95.0	80	120				
1,2-Dichloropropane	19.8	0.0250	20.00	0	99.1	80	120				
Bromodichloromethane	19.9	0.0250	20.00	0	99.4	80	120				
Dibromomethane	20.0	0.0125	20.00	0	100	80	120				
cis-1,3-Dichloropropene	19.7	0.0150	20.00	0	98.6	80	120				
Toluene	20.7	0.0300	20.00	0	103	80	120				
Trans-1,3-Dichloropropylene	19.7	0.0200	20.00	0	98.6	80	120				
Methyl Isobutyl Ketone (MIBK)	51.8	0.0600	50.00	0	104	80	120				
1,1,2-Trichloroethane	19.8	0.0125	20.00	0	98.8	80	120				
1,3-Dichloropropane	19.7	0.0100	20.00	0	98.4	80	120				
Tetrachloroethene (PCE)	20.3	0.0150	20.00	0	101	80	120				
Dibromochloromethane	19.8	0.0150	20.00	0	98.8	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41178A</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>				
Client ID: <b>CCV</b>	Batch ID: <b>41178</b>					Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792084</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	21.0	0.0100	20.00	0	105	80	120				
2-Hexanone (MBK)	46.4	0.0625	50.00	0	92.7	80	120				
Chlorobenzene	19.7	0.0150	20.00	0	98.4	80	120				
1,1,1,2-Tetrachloroethane	20.9	0.0250	20.00	0	104	80	120				
Ethylbenzene	19.6	0.0250	20.00	0	97.8	80	120				
m,p-Xylene	41.7	0.0500	40.00	0	104	80	120				
o-Xylene	20.4	0.0250	20.00	0	102	80	120				
Styrene	19.8	0.0100	20.00	0	99.0	80	120				
Isopropylbenzene	21.2	0.0150	20.00	0	106	80	120				
Bromoform	20.9	0.0150	20.00	0	104	80	120				
1,1,2,2-Tetrachloroethane	20.7	0.200	20.00	0	104	80	120				
n-Propylbenzene	21.0	0.0150	20.00	0	105	80	120				
Bromobenzene	19.8	0.0125	20.00	0	99.2	80	120				
1,3,5-Trimethylbenzene	19.4	0.0150	20.00	0	96.8	80	120				
2-Chlorotoluene	19.0	0.0165	20.00	0	95.1	80	120				
4-Chlorotoluene	20.6	0.0165	20.00	0	103	80	120				
tert-Butylbenzene	19.8	0.0150	20.00	0	99.0	80	120				
1,2,3-Trichloropropane	20.1	0.0300	20.00	0	100	80	120				
1,2,4-Trichlorobenzene	20.5	0.0600	20.00	0	102	80	120				
sec-Butylbenzene	21.0	0.150	20.00	0	105	80	120				
4-Isopropyltoluene	20.7	0.200	20.00	0	104	80	120				
1,3-Dichlorobenzene	19.2	0.0200	20.00	0	95.9	80	120				
1,4-Dichlorobenzene	20.9	0.0150	20.00	0	104	80	120				
n-Butylbenzene	20.8	0.0200	20.00	0	104	80	120				
1,2-Dichlorobenzene	19.7	0.0200	20.00	0	98.3	80	120				
1,2-Dibromo-3-chloropropane	19.9	0.0300	20.00	0	99.5	80	120				
1,2,4-Trimethylbenzene	20.6	0.0150	20.00	0	103	80	120				
Hexachloro-1,3-butadiene	19.6	0.0400	20.00	0	98.0	80	120				
Naphthalene	19.7	0.100	20.00	0	98.6	80	120				
1,2,3-Trichlorobenzene	19.8	0.0600	20.00	0	99.1	80	120				
Surr: Dibromofluoromethane	25.0		25.00		99.8	80	120				
Surr: Toluene-d8	25.0		25.00		100	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>CCV-41178A</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792084</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	24.4		25.00		97.5	80	120				

Sample ID: <b>LCS-41178</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792085</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.03	0.0150	1.000	0	103	80	120				
Chloromethane	0.914	0.0500	1.000	0	91.4	80	120				
Vinyl chloride	0.951	0.0250	1.000	0	95.1	80	120				
Bromomethane	0.939	0.0250	1.000	0	93.9	80	120				
Trichlorofluoromethane (CFC-11)	1.03	0.0200	1.000	0	103	80	120				
Chloroethane	1.07	0.0750	1.000	0	107	80	120				
1,1-Dichloroethene	0.947	0.100	1.000	0	94.7	80	120				
Acetone	2.36	0.250	2.500	0	94.4	80	120				
Methylene chloride	0.950	0.0350	1.000	0	95.0	80	120				
trans-1,2-Dichloroethene	0.975	0.0100	1.000	0	97.5	80	120				
Methyl tert-butyl ether (MTBE)	0.993	0.0200	1.000	0	99.3	80	120				
1,1-Dichloroethane	0.963	0.0250	1.000	0	96.3	80	120				
cis-1,2-Dichloroethene	0.966	0.0150	1.000	0	96.6	80	120				
(MEK) 2-Butanone	2.40	0.300	2.500	0	96.0	80	120				
Chloroform	1.01	0.0175	1.000	0	101	80	120				
1,1,1-Trichloroethane (TCA)	1.01	0.0200	1.000	0	101	80	120				
1,1-Dichloropropene	0.986	0.0200	1.000	0	98.6	80	120				
Carbon tetrachloride	1.04	0.0250	1.000	0	104	80	120				
1,2-Dichloroethane (EDC)	0.999	0.0200	1.000	0	99.9	80	120				
Benzene	0.971	0.0175	1.000	0	97.1	80	120				
Trichloroethene (TCE)	0.950	0.0150	1.000	0	95.0	80	120				
1,2-Dichloropropane	0.991	0.0250	1.000	0	99.1	80	120				
Bromodichloromethane	0.994	0.0250	1.000	0	99.4	80	120				
Dibromomethane	1.00	0.0125	1.000	0	100	80	120				
cis-1,3-Dichloropropene	0.986	0.0150	1.000	0	98.6	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: LCS-41178	SampType: LCS	Units: µg/L				Prep Date: 8/10/2023	RunNo: 85876					
Client ID: LCSS	Batch ID: 41178					Analysis Date: 8/10/2023	SeqNo: 1792085					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Toluene	1.03	0.0300	1.000	0	103	80	120					
Trans-1,3-Dichloropropylene	0.986	0.0200	1.000	0	98.6	80	120					
Methyl Isobutyl Ketone (MIBK)	2.59	0.0600	2.500	0	104	80	120					
1,1,2-Trichloroethane	0.988	0.0125	1.000	0	98.8	80	120					
1,3-Dichloropropane	0.984	0.0100	1.000	0	98.4	80	120					
Tetrachloroethene (PCE)	1.01	0.0150	1.000	0	101	80	120					
Dibromochloromethane	0.988	0.0150	1.000	0	98.8	80	120					
1,2-Dibromoethane (EDB)	1.05	0.0100	1.000	0	105	80	120					
2-Hexanone (MBK)	2.32	0.0625	2.500	0	92.7	80	120					
Chlorobenzene	0.984	0.0150	1.000	0	98.4	80	120					
1,1,1,2-Tetrachloroethane	1.04	0.0250	1.000	0	104	80	120					
Ethylbenzene	0.978	0.0250	1.000	0	97.8	80	120					
m,p-Xylene	2.09	0.0500	2.000	0	104	80	120					
o-Xylene	1.02	0.0250	1.000	0	102	80	120					
Styrene	0.990	0.0100	1.000	0	99.0	80	120					
Isopropylbenzene	1.06	0.0150	1.000	0	106	80	120					
Bromoform	1.04	0.0150	1.000	0	104	80	120					
1,1,2,2-Tetrachloroethane	1.04	0.200	1.000	0	104	80	120					
n-Propylbenzene	1.05	0.0150	1.000	0	105	80	120					
Bromobenzene	0.992	0.0125	1.000	0	99.2	80	120					
1,3,5-Trimethylbenzene	0.968	0.0150	1.000	0	96.8	80	120					
2-Chlorotoluene	0.951	0.0165	1.000	0	95.1	80	120					
4-Chlorotoluene	1.03	0.0165	1.000	0	103	80	120					
tert-Butylbenzene	0.990	0.0150	1.000	0	99.0	80	120					
1,2,3-Trichloropropane	1.00	0.0300	1.000	0	100	80	120					
1,2,4-Trichlorobenzene	1.02	0.0600	1.000	0	102	80	120					
sec-Butylbenzene	1.05	0.150	1.000	0	105	80	120					
4-Isopropyltoluene	1.04	0.200	1.000	0	104	80	120					
1,3-Dichlorobenzene	0.959	0.0200	1.000	0	95.9	80	120					
1,4-Dichlorobenzene	1.04	0.0150	1.000	0	104	80	120					
n-Butylbenzene	1.04	0.0200	1.000	0	104	80	120					
1,2-Dichlorobenzene	0.983	0.0200	1.000	0	98.3	80	120					



**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-41178</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792085</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.995	0.0300	1.000	0	99.5	80	120				
1,2,4-Trimethylbenzene	1.03	0.0150	1.000	0	103	80	120				
Hexachloro-1,3-butadiene	0.980	0.0400	1.000	0	98.0	80	120				
Naphthalene	0.986	0.100	1.000	0	98.6	80	120				
1,2,3-Trichlorobenzene	0.991	0.0600	1.000	0	99.1	80	120				
Surr: Dibromofluoromethane	1.25		1.250		99.8	79.5	124				
Surr: Toluene-d8	1.25		1.250		100	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.5	60.5	139				

Sample ID: <b>MB-41178</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792083</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0150									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0250									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0750									
1,1-Dichloroethene	ND	0.100									
Acetone	ND	0.250									
Methylene chloride	ND	0.0350									
trans-1,2-Dichloroethene	ND	0.0100									
Methyl tert-butyl ether (MTBE)	ND	0.0200									
1,1-Dichloroethane	ND	0.0250									
cis-1,2-Dichloroethene	ND	0.0150									
(MEK) 2-Butanone	ND	0.300									
Chloroform	ND	0.0175									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>MB-41178</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792083</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0175									
Trichloroethene (TCE)	ND	0.0150									
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>MB-41178</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792083</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.20		1.250		96.2	79.5	124				
Surr: Toluene-d8	1.23		1.250		98.1	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.8	60.5	139				

Sample ID: <b>2308159-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792082</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.214						0		30	D
Chloromethane	ND	0.715						0		30	D
Vinyl chloride	ND	0.357						0		30	D
Bromomethane	ND	0.357						0		30	D
Trichlorofluoromethane (CFC-11)	ND	0.286						0		30	D
Chloroethane	ND	1.07						0		30	D
1,1-Dichloroethene	ND	1.43						0		30	D
Acetone	ND	3.57						0		30	D
Methylene chloride	ND	0.500						0		30	D
trans-1,2-Dichloroethene	ND	0.143						0		30	D
Methyl tert-butyl ether (MTBE)	ND	0.286						0		30	D

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2308159-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/11/2023</b>	SeqNo: <b>1792082</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.357						0		30	D
cis-1,2-Dichloroethene	ND	0.214						0		30	D
(MEK) 2-Butanone	ND	4.29						0		30	D
Chloroform	ND	0.250						0		30	D
1,1,1-Trichloroethane (TCA)	ND	0.286						0		30	D
1,1-Dichloropropene	ND	0.286						0		30	D
Carbon tetrachloride	ND	0.357						0		30	D
1,2-Dichloroethane (EDC)	ND	0.286						0		30	D
Benzene	ND	0.250						0		30	D
Trichloroethene (TCE)	ND	0.214						0		30	D
1,2-Dichloropropane	ND	0.357						0		30	D
Bromodichloromethane	ND	0.357						0		30	D
Dibromomethane	ND	0.179						0		30	D
cis-1,3-Dichloropropene	ND	0.214						0		30	D
Toluene	ND	0.429						0		30	D
Trans-1,3-Dichloropropylene	ND	0.286						0		30	D
Methyl Isobutyl Ketone (MIBK)	ND	0.858						0		30	D
1,1,2-Trichloroethane	ND	0.179						0		30	D
1,3-Dichloropropane	ND	0.143						0		30	D
Tetrachloroethene (PCE)	ND	0.214						0		30	D
Dibromochloromethane	ND	0.214						0		30	D
1,2-Dibromoethane (EDB)	ND	0.143						0		30	D
2-Hexanone (MBK)	ND	0.893						0		30	D
Chlorobenzene	ND	0.214						0		30	D
1,1,1,2-Tetrachloroethane	ND	0.357						0		30	D
Ethylbenzene	ND	0.357						0		30	D
m,p-Xylene	ND	0.715						0		30	D
o-Xylene	ND	0.357						0		30	D
Styrene	ND	0.143						0		30	D
Isopropylbenzene	ND	0.214						0		30	D
Bromoform	ND	0.214						0		30	D
1,1,2,2-Tetrachloroethane	ND	2.86						0		30	D

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2308159-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85876</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>41178</b>				Analysis Date: <b>8/11/2023</b>		SeqNo: <b>1792082</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.214						0		30	D
Bromobenzene	ND	0.179						0		30	D
1,3,5-Trimethylbenzene	ND	0.214						0		30	D
2-Chlorotoluene	ND	0.236						0		30	D
4-Chlorotoluene	ND	0.236						0		30	D
tert-Butylbenzene	ND	0.214						0		30	D
1,2,3-Trichloropropane	ND	0.429						0		30	D
1,2,4-Trichlorobenzene	ND	0.858						0		30	D
sec-Butylbenzene	ND	2.14						0		30	D
4-Isopropyltoluene	ND	2.86						0		30	D
1,3-Dichlorobenzene	ND	0.286						0		30	D
1,4-Dichlorobenzene	ND	0.214						0		30	D
n-Butylbenzene	ND	0.286						0		30	D
1,2-Dichlorobenzene	ND	0.286						0		30	D
1,2-Dibromo-3-chloropropane	ND	0.429						0		30	D
1,2,4-Trimethylbenzene	ND	0.214						0		30	D
Hexachloro-1,3-butadiene	ND	0.572						0		30	D
Naphthalene	ND	1.43						0		30	D
1,2,3-Trichlorobenzene	ND	0.858						0		30	D
Surr: Dibromofluoromethane	18.4		17.87		103	79.5	124		0		D
Surr: Toluene-d8	17.6		17.87		98.3	77.5	124		0		D
Surr: 1-Bromo-4-fluorobenzene	17.7		17.87		99.1	60.5	139		0		D

Sample ID: <b>2308139-002BMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85876</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>41178</b>				Analysis Date: <b>8/11/2023</b>		SeqNo: <b>1792079</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.35	0.0140	0.9358	0	144	5	160				
Chloromethane	1.06	0.0468	0.9358	0	113	17.7	160				
Vinyl chloride	1.20	0.0234	0.9358	0	128	21.7	160				
Bromomethane	1.19	0.0234	0.9358	0	128	20	160				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2308139-002BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 8/10/2023	RunNo: 85876				
Client ID: BATCH	Batch ID: 41178					Analysis Date: 8/11/2023	SeqNo: 1792079				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	1.12	0.0187	0.9358	0	120	5	160				
Chloroethane	1.59	0.0702	0.9358	0	170	5	160				S
1,1-Dichloroethene	0.952	0.0936	0.9358	0	102	21.7	160				
Acetone	3.44	0.234	2.339	0	147	20.7	160				
Methylene chloride	1.02	0.0328	0.9358	0.02662	106	46.7	154				
trans-1,2-Dichloroethene	0.954	0.00936	0.9358	0	102	41.9	160				
Methyl tert-butyl ether (MTBE)	0.941	0.0187	0.9358	0	101	70.3	138				
1,1-Dichloroethane	0.927	0.0234	0.9358	0	99.0	45.4	160				
cis-1,2-Dichloroethene	0.917	0.0140	0.9358	0	98.0	52.6	151				
(MEK) 2-Butanone	2.99	0.281	2.339	0	128	44.3	160				
Chloroform	0.969	0.0164	0.9358	0	104	52.7	148				
1,1,1-Trichloroethane (TCA)	0.947	0.0187	0.9358	0	101	39.7	160				
1,1-Dichloropropene	0.950	0.0187	0.9358	0	102	40.1	160				
Carbon tetrachloride	1.01	0.0234	0.9358	0	108	34.2	160				
1,2-Dichloroethane (EDC)	0.936	0.0187	0.9358	0	100	64.6	137				
Benzene	0.913	0.0164	0.9358	0	97.6	52.3	147				
Trichloroethene (TCE)	0.916	0.0140	0.9358	0	97.9	43.1	160				
1,2-Dichloropropane	0.933	0.0234	0.9358	0	99.7	59.5	142				
Bromodichloromethane	0.935	0.0234	0.9358	0	99.9	61.4	146				
Dibromomethane	0.919	0.0117	0.9358	0	98.2	72.4	140				
cis-1,3-Dichloropropene	0.917	0.0140	0.9358	0	98.0	59.6	136				
Toluene	0.964	0.0281	0.9358	0	103	50.1	147				
Trans-1,3-Dichloropropylene	0.916	0.0187	0.9358	0	97.9	59.3	139				
Methyl Isobutyl Ketone (MIBK)	2.44	0.0561	2.339	0	104	48	160				
1,1,2-Trichloroethane	0.916	0.0117	0.9358	0	97.9	70.4	140				
1,3-Dichloropropane	0.899	0.00936	0.9358	0	96.0	69.2	140				
Tetrachloroethene (PCE)	0.982	0.0140	0.9358	0	105	44.6	160				
Dibromochloromethane	0.912	0.0140	0.9358	0	97.5	64.7	141				
1,2-Dibromoethane (EDB)	0.958	0.00936	0.9358	0	102	70.4	143				
2-Hexanone (MBK)	3.01	0.0585	2.339	0	129	33	160				
Chlorobenzene	0.931	0.0140	0.9358	0	99.4	59.6	134				
1,1,1,2-Tetrachloroethane	0.966	0.0234	0.9358	0	103	58	141				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	0.947	0.0234	0.9358	0.02173	98.9	51.7	143				
m,p-Xylene	2.10	0.0468	1.872	0.1113	106	54.5	144				
o-Xylene	0.955	0.0234	0.9358	0	102	57.1	141				
Styrene	0.928	0.00936	0.9358	0	99.2	63.4	135				
Isopropylbenzene	1.00	0.0140	0.9358	0	107	47.8	152				
Bromoform	0.988	0.0140	0.9358	0	106	70.1	134				
1,1,2,2-Tetrachloroethane	0.919	0.187	0.9358	0	98.2	43.2	157				
n-Propylbenzene	1.02	0.0140	0.9358	0.01500	108	47.5	152				
Bromobenzene	0.916	0.0117	0.9358	0	97.8	66.9	133				
1,3,5-Trimethylbenzene	0.957	0.0140	0.9358	0.03813	98.2	51.5	146				
2-Chlorotoluene	0.912	0.0154	0.9358	0	97.5	54.5	137				
4-Chlorotoluene	0.975	0.0154	0.9358	0	104	56.5	138				
tert-Butylbenzene	0.926	0.0140	0.9358	0	99.0	41.8	152				
1,2,3-Trichloropropane	0.887	0.0281	0.9358	0	94.8	64.3	132				
1,2,4-Trichlorobenzene	0.940	0.0561	0.9358	0	100	58.1	135				
sec-Butylbenzene	1.00	0.140	0.9358	0	107	44.2	155				
4-Isopropyltoluene	0.999	0.187	0.9358	0	107	46	156				
1,3-Dichlorobenzene	0.924	0.0187	0.9358	0	98.8	62.6	132				
1,4-Dichlorobenzene	0.984	0.0140	0.9358	0	105	62.7	125				
n-Butylbenzene	1.04	0.0187	0.9358	0	111	43.4	155				
1,2-Dichlorobenzene	0.934	0.0187	0.9358	0	99.8	67.9	128				
1,2-Dibromo-3-chloropropane	0.874	0.0281	0.9358	0	93.4	61.9	135				
1,2,4-Trimethylbenzene	1.13	0.0140	0.9358	0.1440	105	55.5	144				
Hexachloro-1,3-butadiene	0.991	0.0374	0.9358	0	106	38.7	158				
Naphthalene	0.883	0.0936	0.9358	0	94.4	56.6	148				
1,2,3-Trichlorobenzene	0.899	0.0561	0.9358	0	96.1	58.1	142				
Surr: Dibromofluoromethane	1.19		1.170		101	79.5	124				
Surr: Toluene-d8	1.17		1.170		100	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.13		1.170		96.3	60.5	139				

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41166A</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>				Prep Date: <b>8/12/2023</b>	RunNo: <b>85899</b>				
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>					Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792692</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	18.4	0.0150	20.00	0	91.8	80	120				
Chloromethane	18.1	0.0500	20.00	0	90.5	80	120				
Vinyl chloride	18.1	0.0250	20.00	0	90.7	80	120				
Bromomethane	19.4	0.0250	20.00	0	97.0	80	120				
Trichlorofluoromethane (CFC-11)	21.2	0.0200	20.00	0	106	80	120				
Chloroethane	19.6	0.0750	20.00	0	97.8	80	120				
1,1-Dichloroethene	18.5	0.100	20.00	0	92.5	80	120				
Acetone	55.1	0.250	50.00	0	110	80	120				
Methylene chloride	18.7	0.0350	20.00	0	93.4	80	120				
trans-1,2-Dichloroethene	19.2	0.0100	20.00	0	96.0	80	120				
Methyl tert-butyl ether (MTBE)	19.0	0.0200	20.00	0	95.0	80	120				
1,1-Dichloroethane	19.3	0.0250	20.00	0	96.3	80	120				
cis-1,2-Dichloroethene	19.1	0.0150	20.00	0	95.3	80	120				
(MEK) 2-Butanone	51.0	0.300	50.00	0	102	80	120				
Chloroform	20.0	0.0175	20.00	0	100	80	120				
1,1,1-Trichloroethane (TCA)	19.1	0.0200	20.00	0	95.7	80	120				
1,1-Dichloropropene	19.4	0.0200	20.00	0	97.2	80	120				
Carbon tetrachloride	19.4	0.0250	20.00	0	97.1	80	120				
1,2-Dichloroethane (EDC)	19.9	0.0200	20.00	0	99.5	80	120				
Benzene	19.2	0.0175	20.00	0	96.0	80	120				
Trichloroethene (TCE)	19.9	0.0150	20.00	0	99.6	80	120				
1,2-Dichloropropane	19.6	0.0250	20.00	0	97.9	80	120				
Bromodichloromethane	19.2	0.0250	20.00	0	95.9	80	120				
Dibromomethane	19.9	0.0125	20.00	0	99.5	80	120				
cis-1,3-Dichloropropene	18.7	0.0150	20.00	0	93.3	80	120				
Toluene	20.1	0.0300	20.00	0	100	80	120				
Trans-1,3-Dichloropropylene	18.7	0.0200	20.00	0	93.3	80	120				
Methyl Isobutyl Ketone (MIBK)	51.7	0.0600	50.00	0	103	80	120				
1,1,2-Trichloroethane	19.7	0.0125	20.00	0	98.3	80	120				
1,3-Dichloropropane	19.6	0.0100	20.00	0	98.1	80	120				
Tetrachloroethene (PCE)	19.6	0.0150	20.00	0	98.0	80	120				
Dibromochloromethane	18.9	0.0150	20.00	0	94.4	80	120				



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**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	20.7	0.0100	20.00	0	103	80	120				
2-Hexanone (MBK)	49.5	0.0625	50.00	0	99.0	80	120				
Chlorobenzene	19.1	0.0150	20.00	0	95.3	80	120				
1,1,1,2-Tetrachloroethane	20.1	0.0250	20.00	0	101	80	120				
Ethylbenzene	19.0	0.0250	20.00	0	94.9	80	120				
m,p-Xylene	40.2	0.0500	40.00	0	101	80	120				
o-Xylene	19.7	0.0250	20.00	0	98.6	80	120				
Styrene	19.2	0.0100	20.00	0	96.0	80	120				
Isopropylbenzene	20.3	0.0150	20.00	0	102	80	120				
Bromoform	19.4	0.0150	20.00	0	96.9	80	120				
1,1,2,2-Tetrachloroethane	18.7	0.200	20.00	0	93.4	80	120				
n-Propylbenzene	20.1	0.0150	20.00	0	101	80	120				
Bromobenzene	19.3	0.0125	20.00	0	96.3	80	120				
1,3,5-Trimethylbenzene	18.5	0.0150	20.00	0	92.5	80	120				
2-Chlorotoluene	18.4	0.0165	20.00	0	91.9	80	120				
4-Chlorotoluene	19.8	0.0165	20.00	0	98.9	80	120				
tert-Butylbenzene	19.0	0.0150	20.00	0	94.9	80	120				
1,2,3-Trichloropropane	19.2	0.0300	20.00	0	95.8	80	120				
1,2,4-Trichlorobenzene	20.5	0.0600	20.00	0	103	80	120				
sec-Butylbenzene	20.1	0.150	20.00	0	101	80	120				
4-Isopropyltoluene	19.9	0.200	20.00	0	99.4	80	120				
1,3-Dichlorobenzene	18.7	0.0200	20.00	0	93.6	80	120				
1,4-Dichlorobenzene	20.6	0.0150	20.00	0	103	80	120				
n-Butylbenzene	20.0	0.0200	20.00	0	100	80	120				
1,2-Dichlorobenzene	19.2	0.0200	20.00	0	95.9	80	120				
1,2-Dibromo-3-chloropropane	18.5	0.0300	20.00	0	92.3	80	120				
1,2,4-Trimethylbenzene	19.9	0.0150	20.00	0	99.4	80	120				
Hexachloro-1,3-butadiene	18.9	0.0400	20.00	0	94.5	80	120				
Naphthalene	20.4	0.100	20.00	0	102	80	120				
1,2,3-Trichlorobenzene	20.0	0.0600	20.00	0	99.9	80	120				
Surr: Dibromofluoromethane	25.1		25.00		100	80	120				
Surr: Toluene-d8	25.3		25.00		101	80	120				

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**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>CCV-41166A</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/12/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792692</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	24.0		25.00		96.1	80	120				

Sample ID: <b>LCS-41166</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792720</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.918	0.0150	1.000	0	91.8	80	120				
Chloromethane	0.905	0.0500	1.000	0	90.5	80	120				
Vinyl chloride	0.907	0.0250	1.000	0	90.7	80	120				
Bromomethane	0.970	0.0250	1.000	0	97.0	80	120				
Trichlorofluoromethane (CFC-11)	1.06	0.0200	1.000	0	106	80	120				
Chloroethane	0.978	0.0750	1.000	0	97.8	80	120				
1,1-Dichloroethene	0.925	0.100	1.000	0	92.5	80	120				
Acetone	2.75	0.250	2.500	0	110	80	120				
Methylene chloride	0.934	0.0350	1.000	0	93.4	80	120				
trans-1,2-Dichloroethene	0.960	0.0100	1.000	0	96.0	80	120				
Methyl tert-butyl ether (MTBE)	0.950	0.0200	1.000	0	95.0	80	120				
1,1-Dichloroethane	0.963	0.0250	1.000	0	96.3	80	120				
cis-1,2-Dichloroethene	0.953	0.0150	1.000	0	95.3	80	120				
(MEK) 2-Butanone	2.55	0.300	2.500	0	102	80	120				
Chloroform	1.00	0.0175	1.000	0	100	80	120				
1,1,1-Trichloroethane (TCA)	0.957	0.0200	1.000	0	95.7	80	120				
1,1-Dichloropropene	0.972	0.0200	1.000	0	97.2	80	120				
Carbon tetrachloride	0.971	0.0250	1.000	0	97.1	80	120				
1,2-Dichloroethane (EDC)	0.995	0.0200	1.000	0	99.5	80	120				
Benzene	0.960	0.0175	1.000	0	96.0	80	120				
Trichloroethene (TCE)	0.996	0.0150	1.000	0	99.6	80	120				
1,2-Dichloropropane	0.979	0.0250	1.000	0	97.9	80	120				
Bromodichloromethane	0.959	0.0250	1.000	0	95.9	80	120				
Dibromomethane	0.995	0.0125	1.000	0	99.5	80	120				
cis-1,3-Dichloropropene	0.933	0.0150	1.000	0	93.3	80	120				

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**CLIENT:** GeoEngineers  
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**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-41166</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>				
Client ID: <b>LCSS</b>	Batch ID: <b>41166</b>					Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792720</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	1.00	0.0300	1.000	0	100	80	120				
Trans-1,3-Dichloropropylene	0.933	0.0200	1.000	0	93.3	80	120				
Methyl Isobutyl Ketone (MIBK)	2.58	0.0600	2.500	0	103	80	120				
1,1,2-Trichloroethane	0.983	0.0125	1.000	0	98.3	80	120				
1,3-Dichloropropane	0.981	0.0100	1.000	0	98.1	80	120				
Tetrachloroethene (PCE)	0.980	0.0150	1.000	0	98.0	80	120				
Dibromochloromethane	0.944	0.0150	1.000	0	94.4	80	120				
1,2-Dibromoethane (EDB)	1.03	0.0100	1.000	0	103	80	120				
2-Hexanone (MBK)	2.47	0.0625	2.500	0	99.0	80	120				
Chlorobenzene	0.953	0.0150	1.000	0	95.3	80	120				
1,1,1,2-Tetrachloroethane	1.01	0.0250	1.000	0	101	80	120				
Ethylbenzene	0.949	0.0250	1.000	0	94.9	80	120				
m,p-Xylene	2.01	0.0500	2.000	0	101	80	120				
o-Xylene	0.986	0.0250	1.000	0	98.6	80	120				
Styrene	0.960	0.0100	1.000	0	96.0	80	120				
Isopropylbenzene	1.02	0.0150	1.000	0	102	80	120				
Bromoform	0.969	0.0150	1.000	0	96.9	80	120				
1,1,2,2-Tetrachloroethane	0.934	0.200	1.000	0	93.4	80	120				
n-Propylbenzene	1.01	0.0150	1.000	0	101	80	120				
Bromobenzene	0.963	0.0125	1.000	0	96.3	80	120				
1,3,5-Trimethylbenzene	0.925	0.0150	1.000	0	92.5	80	120				
2-Chlorotoluene	0.919	0.0165	1.000	0	91.9	80	120				
4-Chlorotoluene	0.989	0.0165	1.000	0	98.9	80	120				
tert-Butylbenzene	0.949	0.0150	1.000	0	94.9	80	120				
1,2,3-Trichloropropane	0.958	0.0300	1.000	0	95.8	80	120				
1,2,4-Trichlorobenzene	1.03	0.0600	1.000	0	103	80	120				
sec-Butylbenzene	1.01	0.150	1.000	0	101	80	120				
4-Isopropyltoluene	0.994	0.200	1.000	0	99.4	80	120				
1,3-Dichlorobenzene	0.936	0.0200	1.000	0	93.6	80	120				
1,4-Dichlorobenzene	1.03	0.0150	1.000	0	103	80	120				
n-Butylbenzene	1.00	0.0200	1.000	0	100	80	120				
1,2-Dichlorobenzene	0.959	0.0200	1.000	0	95.9	80	120				

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**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-41166</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792720</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.923	0.0300	1.000	0	92.3	80	120				
1,2,4-Trimethylbenzene	0.994	0.0150	1.000	0	99.4	80	120				
Hexachloro-1,3-butadiene	0.945	0.0400	1.000	0	94.5	80	120				
Naphthalene	1.02	0.100	1.000	0	102	80	120				
1,2,3-Trichlorobenzene	0.999	0.0600	1.000	0	99.9	80	120				
Surr: Dibromofluoromethane	1.25		1.250		100	79.5	124				
Surr: Toluene-d8	1.27		1.250		101	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		96.1	60.5	139				

Sample ID: <b>MB-41166</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792693</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0150									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0250									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0750									
1,1-Dichloroethene	ND	0.100									
Acetone	ND	0.250									
Methylene chloride	ND	0.0350									
trans-1,2-Dichloroethene	ND	0.0100									
Methyl tert-butyl ether (MTBE)	ND	0.0200									
1,1-Dichloroethane	ND	0.0250									
cis-1,2-Dichloroethene	ND	0.0150									
(MEK) 2-Butanone	ND	0.300									
Chloroform	ND	0.0175									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									

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**QC SUMMARY REPORT**  
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Sample ID: <b>MB-41166</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792693</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0175									
Trichloroethene (TCE)	ND	0.0150									
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									

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**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>MB-41166</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792693</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.21		1.250		97.1	79.5	124				
Surr: Toluene-d8	1.24		1.250		98.8	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.1	60.5	139				

Sample ID: <b>CCV-41166B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/12/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792701</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	20.6	0.0150	20.00	0	103	80	120				
Chloromethane	17.5	0.0500	20.00	0	87.5	80	120				
Vinyl chloride	17.9	0.0250	20.00	0	89.7	80	120				
Bromomethane	21.9	0.0250	20.00	0	109	80	120				
Trichlorofluoromethane (CFC-11)	21.0	0.0200	20.00	0	105	80	120				
Chloroethane	20.2	0.0750	20.00	0	101	80	120				
1,1-Dichloroethene	17.7	0.100	20.00	0	88.4	80	120				
Acetone	50.0	0.250	50.00	0	100	80	120				
Methylene chloride	19.5	0.0350	20.00	0	97.3	80	120				
trans-1,2-Dichloroethene	18.7	0.0100	20.00	0	93.4	80	120				
Methyl tert-butyl ether (MTBE)	17.8	0.0200	20.00	0	89.2	80	120				

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**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41166B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/12/2023</b>	RunNo: <b>85899</b>
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792701</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	18.9	0.0250	20.00	0	94.4	80	120				
cis-1,2-Dichloroethene	19.0	0.0150	20.00	0	94.9	80	120				
(MEK) 2-Butanone	46.2	0.300	50.00	0	92.4	80	120				
Chloroform	20.0	0.0175	20.00	0	100	80	120				
1,1,1-Trichloroethane (TCA)	18.9	0.0200	20.00	0	94.3	80	120				
1,1-Dichloropropene	18.5	0.0200	20.00	0	92.6	80	120				
Carbon tetrachloride	19.4	0.0250	20.00	0	97.1	80	120				
1,2-Dichloroethane (EDC)	19.8	0.0200	20.00	0	98.9	80	120				
Benzene	19.1	0.0175	20.00	0	95.6	80	120				
Trichloroethene (TCE)	21.2	0.0150	20.00	0	106	80	120				
1,2-Dichloropropane	19.5	0.0250	20.00	0	97.3	80	120				
Bromodichloromethane	19.2	0.0250	20.00	0	95.8	80	120				
Dibromomethane	19.4	0.0125	20.00	0	97.1	80	120				
cis-1,3-Dichloropropene	17.1	0.0150	20.00	0	85.7	80	120				
Toluene	19.9	0.0300	20.00	0	99.3	80	120				
Trans-1,3-Dichloropropylene	17.1	0.0200	20.00	0	85.7	80	120				
Methyl Isobutyl Ketone (MIBK)	47.5	0.0600	50.00	0	95.1	80	120				
1,1,2-Trichloroethane	19.2	0.0125	20.00	0	95.8	80	120				
1,3-Dichloropropane	19.2	0.0100	20.00	0	96.2	80	120				
Tetrachloroethene (PCE)	18.9	0.0150	20.00	0	94.4	80	120				
Dibromochloromethane	18.6	0.0150	20.00	0	92.8	80	120				
1,2-Dibromoethane (EDB)	20.0	0.0100	20.00	0	100	80	120				
2-Hexanone (MBK)	44.3	0.0625	50.00	0	88.7	80	120				
Chlorobenzene	19.0	0.0150	20.00	0	95.0	80	120				
1,1,1,2-Tetrachloroethane	19.9	0.0250	20.00	0	99.7	80	120				
Ethylbenzene	18.7	0.0250	20.00	0	93.6	80	120				
m,p-Xylene	39.8	0.0500	40.00	0	99.4	80	120				
o-Xylene	19.6	0.0250	20.00	0	98.2	80	120				
Styrene	19.1	0.0100	20.00	0	95.6	80	120				
Isopropylbenzene	19.9	0.0150	20.00	0	99.5	80	120				
Bromoform	18.4	0.0150	20.00	0	92.0	80	120				
1,1,2,2-Tetrachloroethane	15.1	0.200	20.00	0	75.5	80	120				S

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41166B</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/12/2023</b>		RunNo: <b>85899</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41166</b>				Analysis Date: <b>8/12/2023</b>		SeqNo: <b>1792701</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	19.6	0.0150	20.00	0	97.9	80	120				
Bromobenzene	18.8	0.0125	20.00	0	93.8	80	120				
1,3,5-Trimethylbenzene	18.3	0.0150	20.00	0	91.6	80	120				
2-Chlorotoluene	18.3	0.0165	20.00	0	91.4	80	120				
4-Chlorotoluene	19.7	0.0165	20.00	0	98.3	80	120				
tert-Butylbenzene	18.4	0.0150	20.00	0	91.8	80	120				
1,2,3-Trichloropropane	17.3	0.0300	20.00	0	86.5	80	120				
1,2,4-Trichlorobenzene	19.3	0.0600	20.00	0	96.5	80	120				
sec-Butylbenzene	19.4	0.150	20.00	0	97.2	80	120				
4-Isopropyltoluene	19.1	0.200	20.00	0	95.4	80	120				
1,3-Dichlorobenzene	18.6	0.0200	20.00	0	93.1	80	120				
1,4-Dichlorobenzene	20.4	0.0150	20.00	0	102	80	120				
n-Butylbenzene	19.1	0.0200	20.00	0	95.7	80	120				
1,2-Dichlorobenzene	19.0	0.0200	20.00	0	94.9	80	120				
1,2-Dibromo-3-chloropropane	17.4	0.0300	20.00	0	86.8	80	120				
1,2,4-Trimethylbenzene	19.7	0.0150	20.00	0	98.5	80	120				
Hexachloro-1,3-butadiene	17.9	0.0400	20.00	0	89.6	80	120				
Naphthalene	18.5	0.100	20.00	0	92.5	80	120				
1,2,3-Trichlorobenzene	18.7	0.0600	20.00	0	93.6	80	120				
Surr: Dibromofluoromethane	25.3		25.00		101	80	120				
Surr: Toluene-d8	25.5		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.0		25.00		96.1	80	120				

**NOTES:**

S - Outlying spike recovery observed (low bias). Samples will be qualified with a Q.

Sample ID: <b>CCV-41178B</b>		SampType: <b>CCV</b>		Units: <b>µg/L</b>		Prep Date: <b>8/12/2023</b>		RunNo: <b>85876</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41178</b>				Analysis Date: <b>8/12/2023</b>		SeqNo: <b>1792953</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	20.6	0.0150	20.00	0	103	80	120				
Chloromethane	17.5	0.0500	20.00	0	87.5	80	120				
Vinyl chloride	17.9	0.0250	20.00	0	89.7	80	120				



**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41178B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>				Prep Date: <b>8/12/2023</b>	RunNo: <b>85876</b>				
Client ID: <b>CCV</b>	Batch ID: <b>41178</b>					Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792953</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	21.9	0.0250	20.00	0	109	80	120				
Trichlorofluoromethane (CFC-11)	21.0	0.0200	20.00	0	105	80	120				
Chloroethane	20.2	0.0750	20.00	0	101	80	120				
1,1-Dichloroethene	17.7	0.100	20.00	0	88.4	80	120				
Acetone	50.0	0.250	50.00	0	100	80	120				
Methylene chloride	19.5	0.0350	20.00	0	97.3	80	120				
trans-1,2-Dichloroethene	18.7	0.0100	20.00	0	93.4	80	120				
Methyl tert-butyl ether (MTBE)	17.8	0.0200	20.00	0	89.2	80	120				
1,1-Dichloroethane	18.9	0.0250	20.00	0	94.4	80	120				
cis-1,2-Dichloroethene	19.0	0.0150	20.00	0	94.9	80	120				
(MEK) 2-Butanone	46.2	0.300	50.00	0	92.4	80	120				
Chloroform	20.0	0.0175	20.00	0	100	80	120				
1,1,1-Trichloroethane (TCA)	18.9	0.0200	20.00	0	94.3	80	120				
1,1-Dichloropropene	18.5	0.0200	20.00	0	92.6	80	120				
Carbon tetrachloride	19.4	0.0250	20.00	0	97.1	80	120				
1,2-Dichloroethane (EDC)	19.8	0.0200	20.00	0	98.9	80	120				
Benzene	19.1	0.0175	20.00	0	95.6	80	120				
Trichloroethene (TCE)	21.2	0.0150	20.00	0	106	80	120				
1,2-Dichloropropane	19.5	0.0250	20.00	0	97.3	80	120				
Bromodichloromethane	19.2	0.0250	20.00	0	95.8	80	120				
Dibromomethane	19.4	0.0125	20.00	0	97.1	80	120				
cis-1,3-Dichloropropene	17.1	0.0150	20.00	0	85.7	80	120				
Toluene	19.9	0.0300	20.00	0	99.3	80	120				
Trans-1,3-Dichloropropylene	17.1	0.0200	20.00	0	85.7	80	120				
Methyl Isobutyl Ketone (MIBK)	47.5	0.0600	50.00	0	95.1	80	120				
1,1,2-Trichloroethane	19.2	0.0125	20.00	0	95.8	80	120				
1,3-Dichloropropane	19.2	0.0100	20.00	0	96.2	80	120				
Tetrachloroethene (PCE)	18.9	0.0150	20.00	0	94.4	80	120				
Dibromochloromethane	18.6	0.0150	20.00	0	92.8	80	120				
1,2-Dibromoethane (EDB)	20.0	0.0100	20.00	0	100	80	120				
2-Hexanone (MBK)	44.3	0.0625	50.00	0	88.7	80	120				
Chlorobenzene	19.0	0.0150	20.00	0	95.0	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41178B</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>				Prep Date: <b>8/12/2023</b>	RunNo: <b>85876</b>				
Client ID: <b>CCV</b>	Batch ID: <b>41178</b>					Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792953</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	19.9	0.0250	20.00	0	99.7	80	120				
Ethylbenzene	18.7	0.0250	20.00	0	93.6	80	120				
m,p-Xylene	39.8	0.0500	40.00	0	99.4	80	120				
o-Xylene	19.6	0.0250	20.00	0	98.2	80	120				
Styrene	19.1	0.0100	20.00	0	95.6	80	120				
Isopropylbenzene	19.9	0.0150	20.00	0	99.5	80	120				
Bromoform	18.4	0.0150	20.00	0	92.0	80	120				
1,1,2,2-Tetrachloroethane	15.1	0.200	20.00	0	75.5	80	120				S
n-Propylbenzene	19.6	0.0150	20.00	0	97.9	80	120				
Bromobenzene	18.8	0.0125	20.00	0	93.8	80	120				
1,3,5-Trimethylbenzene	18.3	0.0150	20.00	0	91.6	80	120				
2-Chlorotoluene	18.3	0.0165	20.00	0	91.4	80	120				
4-Chlorotoluene	19.7	0.0165	20.00	0	98.3	80	120				
tert-Butylbenzene	18.4	0.0150	20.00	0	91.8	80	120				
1,2,3-Trichloropropane	17.3	0.0300	20.00	0	86.5	80	120				
1,2,4-Trichlorobenzene	19.3	0.0600	20.00	0	96.5	80	120				
sec-Butylbenzene	19.4	0.150	20.00	0	97.2	80	120				
4-Isopropyltoluene	19.1	0.200	20.00	0	95.4	80	120				
1,3-Dichlorobenzene	18.6	0.0200	20.00	0	93.1	80	120				
1,4-Dichlorobenzene	20.4	0.0150	20.00	0	102	80	120				
n-Butylbenzene	19.1	0.0200	20.00	0	95.7	80	120				
1,2-Dichlorobenzene	19.0	0.0200	20.00	0	94.9	80	120				
1,2-Dibromo-3-chloropropane	17.4	0.0300	20.00	0	86.8	80	120				
1,2,4-Trimethylbenzene	19.7	0.0150	20.00	0	98.5	80	120				
Hexachloro-1,3-butadiene	17.9	0.0400	20.00	0	89.6	80	120				
Naphthalene	18.5	0.100	20.00	0	92.5	80	120				
1,2,3-Trichlorobenzene	18.7	0.0600	20.00	0	93.6	80	120				
Surr: Dibromofluoromethane	25.3		25.00		101	80	120				
Surr: Toluene-d8	25.5		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.0		25.00		96.1	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2308044-014BDUP	SampType: DUP	Units: mg/Kg-dry	Prep Date: 8/10/2023	RunNo: 85899							
Client ID: BATCH	Batch ID: 41166	Analysis Date: 8/12/2023	SeqNo: 1792703								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0167						0		30	
Chloromethane	ND	0.0557						0		30	
Vinyl chloride	ND	0.0279						0		30	
Bromomethane	ND	0.0279						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0223						0		30	
Chloroethane	ND	0.0836						0		30	
1,1-Dichloroethene	ND	0.111						0		30	
Acetone	ND	0.279						0		30	
Methylene chloride	ND	0.0390						0		30	
trans-1,2-Dichloroethene	ND	0.0111						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0223						0		30	
1,1-Dichloroethane	ND	0.0279						0		30	
cis-1,2-Dichloroethene	ND	0.0167						0		30	
(MEK) 2-Butanone	ND	0.334						0		30	
Chloroform	ND	0.0195						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0223						0		30	
1,1-Dichloropropene	ND	0.0223						0		30	
Carbon tetrachloride	ND	0.0279						0		30	
1,2-Dichloroethane (EDC)	ND	0.0223						0		30	
Benzene	ND	0.0195						0		30	
Trichloroethene (TCE)	ND	0.0167						0		30	
1,2-Dichloropropane	ND	0.0279						0		30	
Bromodichloromethane	ND	0.0279						0		30	
Dibromomethane	ND	0.0139						0		30	
cis-1,3-Dichloropropene	ND	0.0167						0		30	
Toluene	ND	0.0334						0		30	
Trans-1,3-Dichloropropylene	ND	0.0223						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0669						0		30	
1,1,2-Trichloroethane	ND	0.0139						0		30	
1,3-Dichloropropane	ND	0.0111						0		30	
Tetrachloroethene (PCE)	ND	0.0167						0		30	
Dibromochloromethane	ND	0.0167						0		30	

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2308044-014BDUP	SampType: DUP	Units: mg/Kg-dry	Prep Date: 8/10/2023	RunNo: 85899							
Client ID: BATCH	Batch ID: 41166	Analysis Date: 8/12/2023	SeqNo: 1792703								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	0.0111						0		30	
2-Hexanone (MBK)	ND	0.0697						0		30	
Chlorobenzene	ND	0.0167						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0279						0		30	
Ethylbenzene	ND	0.0279						0		30	
m,p-Xylene	ND	0.0557						0		30	
o-Xylene	ND	0.0279						0		30	
Styrene	ND	0.0111						0		30	
Isopropylbenzene	ND	0.0167						0		30	
Bromoform	ND	0.0167						0		30	
1,1,2,2-Tetrachloroethane	ND	0.223						0		30	Q
n-Propylbenzene	ND	0.0167						0		30	
Bromobenzene	ND	0.0139						0		30	
1,3,5-Trimethylbenzene	ND	0.0167						0		30	
2-Chlorotoluene	ND	0.0184						0		30	
4-Chlorotoluene	ND	0.0184						0		30	
tert-Butylbenzene	ND	0.0167						0		30	
1,2,3-Trichloropropane	ND	0.0334						0		30	
1,2,4-Trichlorobenzene	ND	0.0669						0		30	
sec-Butylbenzene	ND	0.167						0		30	
4-Isopropyltoluene	ND	0.223						0		30	
1,3-Dichlorobenzene	ND	0.0223						0		30	
1,4-Dichlorobenzene	ND	0.0167						0		30	
n-Butylbenzene	ND	0.0223						0		30	
1,2-Dichlorobenzene	ND	0.0223						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0334						0		30	
1,2,4-Trimethylbenzene	ND	0.0167						0		30	
Hexachloro-1,3-butadiene	ND	0.0446						0		30	
Naphthalene	ND	0.111						0		30	
1,2,3-Trichlorobenzene	ND	0.0669						0		30	
Surr: Dibromofluoromethane	1.40		1.393		100	79.5	124		0		
Surr: Toluene-d8	1.37		1.393		98.3	77.5	124		0		

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2308044-014BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>	Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792703</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.36		1.393		97.8	60.5	139		0		

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: <b>2308044-023BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>	Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792707</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0198						0		30	
Chloromethane	ND	0.0660						0		30	
Vinyl chloride	ND	0.0330						0		30	
Bromomethane	ND	0.0330						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0264						0		30	
Chloroethane	ND	0.0990						0		30	
1,1-Dichloroethene	ND	0.132						0		30	
Acetone	ND	0.330						0		30	
Methylene chloride	ND	0.0462						0		30	
trans-1,2-Dichloroethene	ND	0.0132						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0264						0		30	
1,1-Dichloroethane	ND	0.0330						0		30	
cis-1,2-Dichloroethene	ND	0.0198						0		30	
(MEK) 2-Butanone	ND	0.396						0		30	
Chloroform	ND	0.0231						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0264						0		30	
1,1-Dichloropropene	ND	0.0264						0		30	
Carbon tetrachloride	ND	0.0330						0		30	
1,2-Dichloroethane (EDC)	ND	0.0264						0		30	
Benzene	ND	0.0231						0		30	
Trichloroethene (TCE)	ND	0.0198						0		30	
1,2-Dichloropropane	ND	0.0330						0		30	
Bromodichloromethane	ND	0.0330						0		30	
Dibromomethane	ND	0.0165						0		30	

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2308044-023BDUP	SampType: DUP	Units: mg/Kg-dry	Prep Date: 8/10/2023	RunNo: 85899							
Client ID: BATCH	Batch ID: 41166	Analysis Date: 8/12/2023	SeqNo: 1792707								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.0198						0		30	
Toluene	ND	0.0396						0		30	
Trans-1,3-Dichloropropylene	ND	0.0264						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0792						0		30	
1,1,2-Trichloroethane	ND	0.0165						0		30	
1,3-Dichloropropane	ND	0.0132						0		30	
Tetrachloroethene (PCE)	ND	0.0198						0		30	
Dibromochloromethane	ND	0.0198						0		30	
1,2-Dibromoethane (EDB)	ND	0.0132						0		30	
2-Hexanone (MBK)	ND	0.0825						0		30	
Chlorobenzene	ND	0.0198						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0330						0		30	
Ethylbenzene	ND	0.0330						0		30	
m,p-Xylene	ND	0.0660						0		30	
o-Xylene	ND	0.0330						0		30	
Styrene	ND	0.0132						0		30	
Isopropylbenzene	ND	0.0198						0		30	
Bromoform	ND	0.0198						0		30	
1,1,2,2-Tetrachloroethane	ND	0.264						0		30	Q
n-Propylbenzene	ND	0.0198						0		30	
Bromobenzene	ND	0.0165						0		30	
1,3,5-Trimethylbenzene	ND	0.0198						0		30	
2-Chlorotoluene	ND	0.0218						0		30	
4-Chlorotoluene	ND	0.0218						0		30	
tert-Butylbenzene	ND	0.0198						0		30	
1,2,3-Trichloropropane	ND	0.0396						0		30	
1,2,4-Trichlorobenzene	ND	0.0792						0		30	
sec-Butylbenzene	ND	0.198						0		30	
4-Isopropyltoluene	ND	0.264						0		30	
1,3-Dichlorobenzene	ND	0.0264						0		30	
1,4-Dichlorobenzene	ND	0.0198						0		30	
n-Butylbenzene	ND	0.0264						0		30	

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>2308044-023BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>	Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792707</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	0.0264						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0396						0		30	
1,2,4-Trimethylbenzene	ND	0.0198						0		30	
Hexachloro-1,3-butadiene	ND	0.0528						0		30	
Naphthalene	ND	0.132						0		30	
1,2,3-Trichlorobenzene	ND	0.0792						0		30	
Surr: Dibromofluoromethane	1.64		1.651		99.4	79.5	124		0		
Surr: Toluene-d8	1.63		1.651		98.9	77.5	124		0		
Surr: 1-Bromo-4-fluorobenzene	1.62		1.651		98.0	60.5	139		0		

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: <b>2308044-017BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>	Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792718</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.35	0.0163	1.087	0	124	5	160				
Chloromethane	1.23	0.0544	1.087	0	113	17.7	160				
Vinyl chloride	1.07	0.0272	1.087	0	98.0	21.7	160				
Bromomethane	1.28	0.0272	1.087	0	118	20	160				
Trichlorofluoromethane (CFC-11)	1.35	0.0217	1.087	0	125	5	160				
Chloroethane	1.58	0.0815	1.087	0	146	5	160				
1,1-Dichloroethene	1.17	0.109	1.087	0	107	21.7	160				
Acetone	2.07	0.272	2.718	0	76.1	20.7	160				
Methylene chloride	1.17	0.0381	1.087	0.03080	105	46.7	154				
trans-1,2-Dichloroethene	1.17	0.0109	1.087	0	107	41.9	160				
Methyl tert-butyl ether (MTBE)	0.968	0.0217	1.087	0	89.1	70.3	138				
1,1-Dichloroethane	1.16	0.0272	1.087	0	106	45.4	160				
cis-1,2-Dichloroethene	1.06	0.0163	1.087	0	97.1	52.6	151				
(MEK) 2-Butanone	2.01	0.326	2.718	0	73.8	44.3	160				
Chloroform	1.13	0.0190	1.087	0	104	52.7	148				
1,1,1-Trichloroethane (TCA)	1.11	0.0217	1.087	0	102	39.7	160				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2308044-017BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>		Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792718</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	1.08	0.0217	1.087	0	99.8	40.1	160				
Carbon tetrachloride	1.17	0.0272	1.087	0	107	34.2	160				
1,2-Dichloroethane (EDC)	1.10	0.0217	1.087	0	101	64.6	137				
Benzene	1.05	0.0190	1.087	0	96.3	52.3	147				
Trichloroethene (TCE)	1.07	0.0163	1.087	0	98.8	43.1	160				
1,2-Dichloropropane	1.06	0.0272	1.087	0	97.7	59.5	142				
Bromodichloromethane	1.05	0.0272	1.087	0	96.5	61.4	146				
Dibromomethane	1.07	0.0136	1.087	0	98.2	72.4	140				
cis-1,3-Dichloropropene	0.892	0.0163	1.087	0	82.1	59.6	136				
Toluene	1.12	0.0326	1.087	0	103	50.1	147				
Trans-1,3-Dichloropropylene	0.892	0.0217	1.087	0	82.1	59.3	139				
Methyl Isobutyl Ketone (MIBK)	2.76	0.0652	2.718	0	102	48	160				
1,1,2-Trichloroethane	1.06	0.0136	1.087	0	97.9	70.4	140				
1,3-Dichloropropane	1.04	0.0109	1.087	0	95.5	69.2	140				
Tetrachloroethene (PCE)	1.14	0.0163	1.087	0	105	44.6	160				
Dibromochloromethane	1.02	0.0163	1.087	0	94.0	64.7	141				
1,2-Dibromoethane (EDB)	1.12	0.0109	1.087	0	103	70.4	143				
2-Hexanone (MBK)	2.24	0.0679	2.718	0	82.3	33	160				
Chlorobenzene	1.07	0.0163	1.087	0	98.6	59.6	134				
1,1,1,2-Tetrachloroethane	1.09	0.0272	1.087	0	101	58	141				
Ethylbenzene	1.07	0.0272	1.087	0	98.2	51.7	143				
m,p-Xylene	2.26	0.0544	2.174	0	104	54.5	144				
o-Xylene	1.09	0.0272	1.087	0	99.8	57.1	141				
Styrene	1.07	0.0109	1.087	0	98.0	63.4	135				
Isopropylbenzene	1.15	0.0163	1.087	0	106	47.8	152				
Bromoform	1.06	0.0163	1.087	0	97.8	70.1	134				
1,1,2,2-Tetrachloroethane	1.05	0.217	1.087	0	96.7	43.2	157				
n-Propylbenzene	1.14	0.0163	1.087	0	105	47.5	152				
Bromobenzene	1.06	0.0136	1.087	0	97.9	66.9	133				
1,3,5-Trimethylbenzene	1.05	0.0163	1.087	0	96.7	51.5	146				
2-Chlorotoluene	1.03	0.0179	1.087	0	94.3	54.5	137				
4-Chlorotoluene	1.09	0.0179	1.087	0	101	56.5	138				



**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2308044-017BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41166</b>	Analysis Date: <b>8/12/2023</b>	SeqNo: <b>1792718</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
tert-Butylbenzene	1.07	0.0163	1.087	0	98.7	41.8	152				
1,2,3-Trichloropropane	0.941	0.0326	1.087	0	86.6	64.3	132				
1,2,4-Trichlorobenzene	1.10	0.0652	1.087	0	102	58.1	135				
sec-Butylbenzene	1.15	0.163	1.087	0	106	44.2	155				
4-Isopropyltoluene	1.12	0.217	1.087	0	103	46	156				
1,3-Dichlorobenzene	1.06	0.0217	1.087	0	97.1	62.6	132				
1,4-Dichlorobenzene	1.12	0.0163	1.087	0	103	62.7	125				
n-Butylbenzene	1.11	0.0217	1.087	0	102	43.4	155				
1,2-Dichlorobenzene	1.07	0.0217	1.087	0	98.6	67.9	128				
1,2-Dibromo-3-chloropropane	0.990	0.0326	1.087	0	91.1	61.9	135				
1,2,4-Trimethylbenzene	1.12	0.0163	1.087	0	103	55.5	144				
Hexachloro-1,3-butadiene	1.03	0.0435	1.087	0	94.7	38.7	158				
Naphthalene	1.14	0.109	1.087	0	105	56.6	148				
1,2,3-Trichlorobenzene	1.11	0.0652	1.087	0	102	58.1	142				
Surr: Dibromofluoromethane	1.37		1.359		101	79.5	124				
Surr: Toluene-d8	1.37		1.359		100	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.359		95.8	60.5	139				

Sample ID: <b>CCV-41166C</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85899</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41166</b>	Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792722</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	21.5	0.0150	20.00	0	107	80	120				
Surr: Dibromofluoromethane	25.3		25.00		101	80	120				
Surr: Toluene-d8	25.2		25.00		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.7	80	120				

**Work Order:** 2308151  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>CCV-41178C</b>	SampType: <b>CCV</b>	Units: <b>µg/L</b>	Prep Date: <b>8/14/2023</b>	RunNo: <b>85876</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41178</b>		Analysis Date: <b>8/14/2023</b>	SeqNo: <b>1792970</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

n-Propylbenzene	21.5	0.0150	20.00	0	107	80	120				
n-Butylbenzene	22.0	0.0200	20.00	0	110	80	120				
Surr: Dibromofluoromethane	25.3		25.00		101	80	120				
Surr: Toluene-d8	25.2		25.00		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.7	80	120				

Client Name: GEI	Work Order Number: 2308151
Logged by: Morgan Wilson	Date Received: 8/10/2023 11:11:00 AM

**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 holding times 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

**Item Information**

Item #	Temp °C
Sample	3.2

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



**Fremont**  
Analytical  
An Alliance Technical Group Company

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

### Chain of Custody Record & Laboratory Services Agreement

Date: 8/8/23 Page: 1 of 2

Project Name: South Jackson Street

Project No.: 24504-001-01

Client: GeoEngineers  
Address: 2101 4th Ave Ste 950

Collected by: Paul Robinette

City, State, Zip: Seattle, WA 98121

Location: Seattle, WA

Telephone: 425.861.2674

Report to (PM): Robert Trahan

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
 Retain volume (specify above)  Return to client

Laboratory Project No (Internal): **23508151**  
Special Remarks: Level 2B QA

Emails: rtrahan@geoengineers.com, probinette@geoengineers.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (GX)	Diesel/Heavy Oil range Organics (DW)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (C)***	EDB (8011)	Lead - STD TAT	Comments
1 R1-NSW-98	8/8/23	0900	S	1													Lead - STD TAT	
2 UST2-NSW-93	8/8/23	1400	S	3	X	X	X	X	X	X	X	X	X	X	X	X	2-day TAT	
3 UST2-MSW-93	8/8/23	1355	S	3	X	X	X	X	X	X	X	X	X	X	X	X	Hold	
4 UST2-SSW-93	8/8/23	1405	S	3	X	X	X	X	X	X	X	X	X	X	X	X	Hold	
5 UST2-B-89	8/8/23	1350	S	3	X	X	X	X	X	X	X	X	X	X	X	X		
6 UST3-NSW-93	8/8/23	1515	S	3	X	X	X	X	X	X	X	X	X	X	X	X		
7 UST3-SSW-93	8/8/23	1525	S	3	X	X	X	X	X	X	X	X	X	X	X	X	Hold	
8 UST3-MSW-93	8/8/23	1530	S	3	X	X	X	X	X	X	X	X	X	X	X	X		
9 UST3-B-90	8/8/23	1520	S	3	X	X	X	X	X	X	X	X	X	X	X	X		
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 V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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.

Reinquired (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_

Turn-around Time:  
 Standard  Next Day  
 3 Day  Same Day  
 2 Day \_\_\_\_\_ (specify)



**Fremont Analytical**  
An Alliance Technical Group Company

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

### Chain of Custody Record & Laboratory Services Agreement

Date: 8/8/23 Page: 2 of 2

Project Name: South Jackson Street

Project No: 24504-001-01

Collected by: Paul Robinette

Location: Seattle, WA

Report To (pm): Robert Trahan

Laboratory Project No (internal):  
Special Remarks:  
Level 2B QA

2308151

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
 Retain volume (Specify above)  Return to client

Client: GeoEngineers  
Address: 2101 4th Ave Ste 950  
City, State, Zip: Seattle, WA 98121  
Telephone: 425.861.2674

Email(s): rtrahan@geoengineers.com, probinette@geoengineers.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCS (EPA 8260 / 624)	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 (Cl)**	EDB (8011)	Comments	Turn-around Time:
1 UST4-NSW-93	8/9/23	0745	S	3	X	X	X	X	X	X	X	X	X	X	X	X	2-day TAT	<input type="checkbox"/> Standard <input type="checkbox"/> Next Day
2 UST4-SSW-93	8/9/23	0750	S	3	X	X	X	X	X	X	X	X	X	X	X	X	2-day TAT	<input type="checkbox"/> 3 Day <input type="checkbox"/> Same Day
3 UST4-B-90	8/9/23	0755	S	3	X	X	X	X	X	X	X	X	X	X	X	X	2-day TAT	<input type="checkbox"/> 2 Day (specify)
4																		
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 Tl Ti V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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) *[Signature]* Print Name *Paul Robinette* Date/Time *8/10/23 08:50*  
 Received (Signature) *[Signature]* Print Name *Simon* Date/Time *08/10/23*  
 Relinquished (Signature) *[Signature]* Print Name *MASON P* Date/Time *8/10/23 11:11*













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: S Jackson Street  
Work Order Number: 2308152**

August 14, 2023

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 1 sample(s) on 8/10/2023 for the analyses presented in the following report.

***Hydrocarbon Identification by NWTPH-HCID***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original



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**CLIENT:** GeoEngineers  
**Project:** S Jackson Street  
**Work Order:** 2308152

**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308152-001	UST4-230808	08/08/2023 7:00 AM	08/10/2023 11:11 AM

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

**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

---

### 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



**Client:** GeoEngineers

**Collection Date:** 8/8/2023 7:00:00 AM

**Project:** S Jackson Street

**Lab ID:** 2308152-001

**Matrix:** Product

**Client Sample ID:** UST4-230808

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Hydrocarbon Identification by NWTPH-HCID**

Batch ID: 41170

Analyst: AP

Gasoline	ND	577		mg/Kg	1	8/10/2023 9:38:42 PM
Mineral Spirits	ND	962		mg/Kg	1	8/10/2023 9:38:42 PM
Kerosene	ND	962		mg/Kg	1	8/10/2023 9:38:42 PM
Diesel (Fuel Oil)	ND	962		mg/Kg	1	8/10/2023 9:38:42 PM
Heavy Oil	ND	1,920		mg/Kg	1	8/10/2023 9:38:42 PM
Mineral Oil	ND	1,920		mg/Kg	1	8/10/2023 9:38:42 PM
Surr: 2-Fluorobiphenyl	107	50 - 150		%Rec	1	8/10/2023 9:38:42 PM
Surr: o-Terphenyl	107	50 - 150		%Rec	1	8/10/2023 9:38:42 PM

**Work Order:** 2308152  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>HO ICV</b>	SampType: <b>ICV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>7/27/2023</b>	RunNo: <b>85547</b>					
Client ID: <b>ICV</b>	Batch ID: <b>41170</b>				Analysis Date: <b>7/27/2023</b>	SeqNo: <b>1784893</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Heavy Oil	515	100	500.0	0	103	70	130				
Surr: 2-Fluorobiphenyl	10.5		10.00		105	50	150				
Surr: o-Terphenyl	10.8		10.00		108	50	150				

Sample ID: <b>HO ICB</b>	SampType: <b>ICB</b>	Units: <b>mg/Kg</b>			Prep Date: <b>7/27/2023</b>	RunNo: <b>85547</b>					
Client ID: <b>ICB</b>	Batch ID: <b>41170</b>				Analysis Date: <b>7/27/2023</b>	SeqNo: <b>1784901</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	9.91		10.00		99.1	50	150				
Surr: o-Terphenyl	9.84		10.00		98.4	50	150				

Sample ID: <b>DX ICB</b>	SampType: <b>ICB</b>	Units: <b>mg/Kg</b>			Prep Date: <b>7/27/2023</b>	RunNo: <b>85547</b>					
Client ID: <b>ICB</b>	Batch ID: <b>41170</b>				Analysis Date: <b>7/27/2023</b>	SeqNo: <b>1784903</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics	ND	50.0									
Surr: 2-Fluorobiphenyl	10.0		10.00		100	50	150				
Surr: o-Terphenyl	10.0		10.00		100	50	150				

Sample ID: <b>DX ICV</b>	SampType: <b>ICV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>7/27/2023</b>	RunNo: <b>85547</b>					
Client ID: <b>ICV</b>	Batch ID: <b>41170</b>				Analysis Date: <b>7/27/2023</b>	SeqNo: <b>1784904</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics	479	50.0	500.0	0	95.8	70	130				
Surr: 2-Fluorobiphenyl	10.5		10.00		105	50	150				
Surr: o-Terphenyl	11.0		10.00		110	50	150				

**Work Order:** 2308152  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>OIL-CCV-41170A</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85877</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792087</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heavy Oil	477	100	500.0	0	95.5	80	120				
Surr: 2-Fluorobiphenyl	10.8		10.00		108	50	150				
Surr: o-Terphenyl	11.2		10.00		112	50	150				

Sample ID: <b>DX-CCV-41170A</b>		SampType: <b>CCV</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85877</b>			
Client ID: <b>CCV</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792088</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	484	50.0	500.0	0	96.7	80	120				
Surr: 2-Fluorobiphenyl	10.6		10.00		106	50	150				
Surr: o-Terphenyl	13.1		10.00		131	50	150				

Sample ID: <b>MB-41170</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85877</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792089</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	30.0									
Mineral Spirits	ND	50.0									
Kerosene	ND	50.0									
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Mineral Oil	ND	100									
Surr: 2-Fluorobiphenyl	10.4		10.00		104	50	150				
Surr: o-Terphenyl	10.6		10.00		106	50	150				

Sample ID: <b>LCS-41170</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>8/10/2023</b>		RunNo: <b>85877</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>		SeqNo: <b>1792090</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	520	50.0	500.0	0	104	74.5	125				



**Work Order:** 2308152  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>LCS-41170</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>41170</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792090</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	9.23	10.00	92.3	50	150
Surr: o-Terphenyl	12.0	10.00	120	50	150

Sample ID: <b>2308151-002ADUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>41170</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792092</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	34.2						0		30
Mineral Spirits	ND	57.0						0		30
Kerosene	ND	57.0						0		30
Diesel (Fuel Oil)	ND	57.0						0		30
Heavy Oil	ND	114						0		30
Mineral Oil	ND	114						0		30
Surr: 2-Fluorobiphenyl	11.8		11.39		104	50	150		0	
Surr: o-Terphenyl	11.9		11.39		105	50	150		0	

Sample ID: <b>OIL-CCV-41170B</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792093</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Heavy Oil	499	100	500.0	0	99.7	80	120
Surr: 2-Fluorobiphenyl	10.8		10.00		108	50	150
Surr: o-Terphenyl	11.3		10.00		113	50	150

Sample ID: <b>DX-CCV-41170B</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>	Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>							
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>		Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792094</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	488	50.0	500.0	0	97.6	80	120
Surr: 2-Fluorobiphenyl	11.1		10.00		111	50	150

**Work Order:** 2308152  
**CLIENT:** GeoEngineers  
**Project:** S Jackson Street

## QC SUMMARY REPORT

### Hydrocarbon Identification by NWTPH-HCID

Sample ID: <b>DX-CCV-41170B</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>					
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792094</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	13.1		10.00		131	50	150				

Sample ID: <b>OIL-CCV-41170C</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>					
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792096</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heavy Oil	500	100	500.0	0	100	80	120				
Surr: 2-Fluorobiphenyl	10.9		10.00		109	50	150				
Surr: o-Terphenyl	11.3		10.00		113	50	150				

Sample ID: <b>DX-CCV-41170C</b>	SampType: <b>CCV</b>	Units: <b>mg/Kg</b>			Prep Date: <b>8/10/2023</b>	RunNo: <b>85877</b>					
Client ID: <b>CCV</b>	Batch ID: <b>41170</b>				Analysis Date: <b>8/10/2023</b>	SeqNo: <b>1792097</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	496	50.0	500.0	0	99.1	80	120				
Surr: 2-Fluorobiphenyl	11.3		10.00		113	50	150				
Surr: o-Terphenyl	13.5		10.00		135	50	150				

Client Name: GEI	Work Order Number: 2308152
Logged by: Morgan Wilson	Date Received: 8/10/2023 11:11:00 AM

**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 holding times 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

**Item Information**

Item #	Temp °C
Sample	3.2

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



**Fremont**  
Analytical  
An Alliance Technical Group Company

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

### Chain of Custody Record & Laboratory Services Agreement

Date: 8/8/23 Page: 1 of 1

Project Name: South Jackson Street

Project No: 24504-001-01

Collected by: Paul Robinette

Location: Seattle, WA

Report To (PM): Robert Trahan

Laboratory Project No (Internal):  
Special Remarks:  
Level 2B QA

2308152

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
 Retain volume (specify above)  Return to client

Client: GeoEngineers  
Address: 2101 4th Ave Ste 950  
City, State, Zip: Seattle, WA 98121  
Telephone: 425.861.2674

Email(s): rtrahan@geoengineers.com, probinette@geoengineers.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	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)	Comments
1 UST4-230808	8/8/23	0700	P				X										
2																	
3																	
4																	
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 Sn Sr Se Ti Tl V Zn  
 \*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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) *Paul Robinette* Print Name Paul Robinette Date/Time 8/8/23 08:00  
 Received (Signature) *Simon* Print Name SIMON Date/Time 8/10/23 11:11

Relinquished (Signature) *MASON P* Print Name MASON P Date/Time 8/10/23 11:11

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

**APPENDIX E**  
**Report Limitations and Guidelines for Use**

## **APPENDIX E REPORT LIMITATIONS AND GUIDELINES FOR USE<sup>3</sup>**

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 South Jackson Partners LLC, their authorized agents and regulatory agencies. 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 South Jackson Partners LLC, their authorized agents and regulatory agencies 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 UST removal and excavation activities at Seventh Avenue Service Site located at 701 South Jackson Street, Seattle, 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 South Jackson Partners LLC, their authorized agents and regulatory agencies. 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 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

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<sup>3</sup> Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; [www.asfe.org](http://www.asfe.org).

Agreement with South Jackson Partners LLC and generally accepted environmental practices in this area at the time this report was prepared.

### **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 after Completion of Remedial Activities**

Remediation activity completed in a portion of a site cannot 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.

### **Soil and Groundwater End Use**

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

### **Most Environmental Findings Are Professional Opinions**

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

### **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 South Jackson Partners desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.