Chevron Environmental Management Company

Upland Remedial Investigation Data Summary Report

Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

ECSI No. 1402

June 28, 2024

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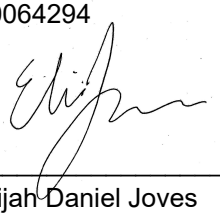

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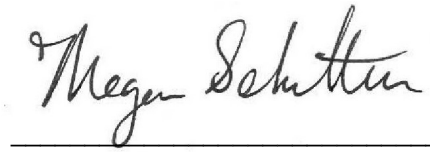

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Acronyms and Abbreviations

--	not applicable
AOI	area of investigation
Arcadis	Arcadis U.S., Inc.
ASTM	ASTM International
bgs	below ground surface
Cascade	Cascade Drilling, L.P.
CEMC	Chevron Environmental Management Company
COI	constituent of interest
DEQ	Oregon Department of Environmental Quality
ECSI	Environmental Cleanup Site Information
HASP	Health and Safety Plan
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PIANO	parafin, isoparafin, aromatic, naphthalenes, and olefin
PVC	polyvinyl chloride
RBC	risk-based concentration
RBCss CW	risk-based concentrations dermal contact and inhalation for construction workers
RBCss Occ	risk-based concentrations soil ingestion, dermal contact, and inhalation for occupational
RBCsw	risk-based concentrations leaching to groundwater
RI	remedial investigation
RI Report	Remedial Investigation Report
RI Work Plan	Remedial Investigation Work Plan
RI Work Plan RTCs	Remedial Investigation Work Plan Response to Comments
ROW	right of way
SIM	selected ion monitoring
site	former Chevron Bulk Plant No. 1001838, located at 10 Fifth Street, Astoria, Oregon, and adjacent parcels to the north, northeast, and east, including submerged land within the Columbia River
TOC	total organic carbon
TPH-DRO	total petroleum hydrocarbons as diesel-range organics

TPH-GRO	total petroleum hydrocarbons as gasoline-range organics
TPH-HRO	total petroleum hydrocarbons as heavy-oil-range organics
UCM	unresolved complex mixture
Upland RI DSR	Upland Remedial Investigation Data Summary Report
USEPA	United States Environmental Protection Agency
UST	underground storage tank
µg/kg	microgram per kilogram
VOC	volatile organic compound

1 Introduction

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) prepared this *Upland Remedial Investigation Data Summary Report* (Upland RI DSR) for former Chevron Bulk Plant No. 1001838, located at 10 Fifth Street, Astoria, Oregon, and the adjacent parcels to the north, northeast, and east, including submerged land within the Columbia River (site). The site location and site features are shown on Figures 1 and 2, respectively.

The Oregon Department of Environmental Quality (DEQ) assigned Environmental Cleanup Site Information (ESCI) No. 1402 to the site. The 2023 upland remedial investigation (RI) was completed pursuant to the Voluntary Agreement for Remedial Investigation/Feasibility Study (Voluntary Agreement) between ChevronTexaco and DEQ, effective April 5, 2004 (DEQ 2004) and in general accordance with the November 4, 2022 *Remedial Investigation Work Plan* (RI Work Plan; Arcadis 2022), the April 6, 2023 DEQ RI Work Plan Review Comment Letter (DEQ 2023), and subsequent June 12, 2023 R*emedial Investigation Work Plan Response to Comments* (RI Work Plan RTCs; Arcadis 2023).

This Upland RI DSR documents the details and results of the work completed on the upland portion of the site in 2023. Following completion of the in-water portion of the RI, Arcadis will submit a comprehensive Remedial Investigation Report (RI Report) under separate cover.

1.1 Site Description

The site is located in a mixed commercial and high-density residential area along the Columbia River in Astoria, Oregon within Section 7, Township 08 North, Range 09 West of the Willamette Principal Meridian, Clatsop County (Figure 1). The site is located between Fourth Street and Sixth Street, north of Marine Drive (U.S. Highway 30), and is bisected by Fifth Street. Site features on the portion west of Fifth Street include a two-story office building and associated paved parking lot. Site features on the portion east of Fifth Street include a Chevron-branded service station and Wilcox & Flegel cardlock fueling facility with associated underground storage tanks (USTs) and an aboveground storage tank, a building/convenience store associated with the Chevron station, and a combined office and warehouse building occupied by Wilcox & Flegel (Figure 2). A multiuse path and riverfront trolley line separate the upland parcels from the Columbia River pier and dock also used by Wilcox & Flegel.

The area of investigation (AOI) includes the two upland parcels of land separated by Fifth Street, two narrow right-of-way (ROW) parcels, and two in-water parcels, separated by a pier (Figure 2; Clatsop County 2022). Historical bulk plant operations occurred on the former tank yard parcel west of Fifth Street (Parcel 900), the former warehouse on half of the upland parcel east of Fifth Street (Parcel 1101), and the dock parcel west of the pier in the Columbia River (Parcel 500). The AOI also includes the southern half of the eastern upland parcel (Parcel 1101), the in-water parcel east of the pier (Parcel 600), and two ROW parcels (Parcels 11500 and 11400) separating the upland area from the Columbia River. In total, the AOI includes approximately 2.3 acres in the upland and 2.4 acres of sediments in the Columbia River. Per the 2004 Voluntary Agreement, the area of the site is designated to be 1.79 acres in size. However, the RI scope will be completed within the AOI as defined above.

1.2 Regulatory Context

Impacts in soil and groundwater were discovered on the former bulk plant warehouse, service station parcel, and tank yard parcel during environmental investigations conducted in 1988 and service station decommissioning in 1993, respectively. The DEQ initially assigned UST Log Numbers 04-88-0130 and 04-93-0181. Both incidents were transferred to the Environmental Cleanup Site Information (ECSI program and combined under ECSI No. 1402). CEMC entered the site into the Voluntary Cleanup Program in 2004 under the 2004 Voluntary Agreement (DEQ 2004).

Remedial investigations have been performed at the site since the late 1980s. A Remedial Investigation, Human Health, and Ecological Risk Assessment Report (Arcadis 2014) was submitted in 2014, but due to ongoing discussions between the DEQ and CEMC, it was not finalized. An RI Work Plan (Arcadis 2022) was submitted in November 2022 for additional data collection to define the nature and extent of constituents of interest (COI) in the upland and in-water portions of the site. In October and November 2023, Arcadis proceeded with the upland portion of the scope described in the RI Work Plan, as modified by the RI Work Plan RTCs (Arcadis 2023). The in-water RI scope is anticipated to be completed in 2024.

2 Pre-Field Activities

This section discusses the pre-field activities completed prior to commencing the October and November 2023 upland investigation activities.

2.1 Site Health and Safety Plan

As required by the Occupational Safety and Health Administration, 29 Code of Federal Regulations 1910.120 (Hazardous Waste Operations and Emergency Responses), Arcadis updated the Health and Safety Plan (HASP) to address the hazards associated with fieldwork at the site. Field staff and contractors reviewed the HASP before beginning field operations.

2.2 Access and Permits

The property owners and relevant stakeholders were notified of proposed field activities prior to conducting field work. Arcadis obtained a permit from the City of Astoria (City) for the advancement of soil borings and for ROW work. A copy of the approved permit is provided in Appendix A.

2.3 Utility Locate

The Oregon 811 call center was notified a minimum of 48 hours before commencing field activities to identify public utility lines that may conflict with the proposed drilling locations. In conjunction with the 811 notifications, private utility-locating companies (Geomarkout and Ground Penetrating Radar Systems, LLC) further evaluated the potential presence of underground utilities near each proposed boring location on October 30 and November 6, 2023. Both subcontractors used several instruments including ground-penetrating radar, metal detectors, and electromagnetic induction.

3 Upland Investigation Activities

This section discusses objectives, field activities, and investigation-derived waste associated with the 2023 upland investigation completed at the site. The methods and procedures were conducted in general accordance with the RI Work Plan (Arcadis 2022; DEQ 2023), and RI Work Plan RTC (Arcadis 2023). A site plan with upland investigation locations is shown on Figure 3.

3.1 Remedial Investigation Objectives

Arcadis executed the 2023 investigation pursuant to the to the Voluntary Agreement. Data gap objectives and proposed work to address the data gaps outlined in the RI Work Plan and supplemented with the RI Work Plan RTC included:

- Advancement of soil borings SB-28, SB-29, MW-32, MW-33, and MW-34 to further characterize and delineate COIs in the southern half of the eastern parcel.
- Advancement of soil borings SB-17 through SB-29 and MW-26 through MW-34 to further characterize shallow soil at the site.
- Advancement of soil borings SB-24, SB-25, and SB-28 to evaluate for the presence of polychlorinated biphenyls (PCBs) near former used oil tanks.
- Installation of monitoring wells MW-26 through MW-34 to laterally delineate impacts in groundwater.
- Installation of monitoring wells MW-29 through MW-31 to further characterize groundwater quality and conditions near historical monitoring wells DM-4 and DM-5.

3.2 Field Modifications and Work Plan Deviations

The following deviations from the RI Work Plan (Arcadis 2022) occurred during the upland RI:

- Drill rig refusal was encountered shallower than the proposed target depth of 20 feet below ground surface (bgs) at soil borings SB-17, SB-19, SB-21, SB-22, SB-25, and MW-34. The total depth of each soil boring is presented in the boring logs (Appendix B). Due to refusal encountered at MW-34, step out location MW-34A was advanced to the target depth of 20 feet bgs. For the purposes of this Upland RI DSR, MW-34 is used as the identifier for this monitoring well.
- Grain size was not analyzed due to insufficient soil volume or limited soil recovery at soil borings SB-18 (6.5 to 7.5 and 9.5 to 10 feet bgs), SB-19 (9.5 to 10 feet bgs), SB-24 (1.5 to 2 feet bgs), SB-26 (8 to 9 and 11 to 12 feet bgs), SB-27 (8 to 9 and 9.5 to 10 feet bgs), SB-29 (9.5 to 10, 11 to 12.5, and 15.5 to 17 feet bgs), M W-26 (2 to 3 and 15.5 to 17 feet bgs), MW-29 (1.5 to 2 feet bgs), and MW-31 (2 to 2.5 feet bgs).
- Soil samples SB-18 from 2 to 4 feet bgs and SB-19 from 4 to 5 feet bgs were thought to have been lost during transit to the laboratory. However, the samples were located by the laboratory and analyzed within applicable hold times. Soil borings SB-18A and SB-19A were advanced adjacent to soil borings SB-18 and SB-19, respectively, to collect soil from the intervals that were assumed to have been lost in transit.
- Bank transect boring soil samples T1-B3, the associated duplicate sample (DUP-1), and the duplicate sample collected from T2-B3 (DUP-2) were lost during transit to the laboratory.

- Due to field observations of sheen during advancement of the bank transect borings, additional soil samples were collected from bank locations T3-B2 and T4-B2 and submitted to Alpha Analytical for forensic analysis. The soil sample collected from boring SB-26 at 11 to 12 feet bgs was additionally analyzed for forensic analysis to evaluate the hydrocarbon signatures between bank transect and upland soil samples. Forensic samples were received outside of the temperature range by Alpha Analytical due to delays during transit.
- Several samples submitted to Pace Analytical were received outside of hold time due to delays during transit. Samples received out of hold time are indicated by the T8 qualifier in Tables 1 through 7.

3.3 Drilling and Soil Sampling

Soil borings SB-17 through SB-29 and MW-26 through MW-34 were cleared and advanced from October 31 through November 8, 2023. Soil boring locations were distributed across multiple parcels including Parcels 900, 11500, 11400, and 1101. The borings were advanced using hollow stem auger drilling methods by a licensed Oregon drilling subcontractor, Cascade Drilling, L.P. (Cascade) located in Clackamas, Oregon. Total depth and laboratory analytical sampling intervals for each boring are presented in Table 3-1, below.

Table 3-1. Soil Boring Total Depths and Laboratory Analytical Sample Intervals

Location	Parcel Number	Boring Type	Total Depth	Laboratory Analytical Sample Intervals (feet bgs)
SB-17	11500	Soil boring	12	1.5 to 2.5, 4 to 5
SB-18	11500	Soil boring	12	2 to 4, 4 to 5, 6.5 to 7.5, 9.5 to 10.5
SB-19	11500	Soil boring	14	2 to 3, 4 to 5, 9.5 to 10.2
SB-20	11400	Soil boring	12.5	2 to 3, 4 to 5
SB-21	11400	Soil boring	13	2 to 2.5, 4 to 5, 8 to 9.5, 9.5 to 11.3
SB-22	11400	Soil boring	14.5	2 to 4. 4 to 5. 6.5 to 9.5, 11 to 12.5
SB-23	900	Soil boring	20	2 to 3, 4 to 5, 6.5 to 8, 11 to 12.5, 17 to 18.5
SB-24	900	Soil boring	20	1.5 to 2, 4 to 5, 8 to 9.5, 11 to 12.5, 15.5 to 17
SB-25	1101	Soil boring	12	2 to 3, 4 to 5, 8 to 8.8,11 to 12
SB-26	1101	Soil boring	15	2 to 3, 4 to 5, 8 to 9, 11 to 12
SB-27	1101	Soil boring	14	2 to 3, 4 to 5, 8 to 9.1, 9.5 to 10.2
SB-28	1101	Soil boring	20	2 to 3, 4 to 5, 12.5 to 13.5, 18.5 to 19.8
SB-29	1101	Soil boring	20	9.5 to 10.5, 11 to 12.5, 15.5 to 17
MW-26	900	Monitoring well	20.3	2 to 3, 4 to 5, 6.5 to 8, 12.5 to 14, 15.5 to 17

Location	Parcel Number	Boring Type	Total Depth	Laboratory Analytical Sample Intervals (feet bgs)
MW-27	900	Monitoring well	20.3	2 to 3, 4 to 5, 6.5 to 8, 11 to 12.5, 15.5 to 17
MW-28	900	Monitoring well	20.3	2 to 3, 4 to 5, 8 to 9.5, 11 to 14, 17 to 18.5
MW-29	900	Monitoring well	20.3	6.5 to 8, 11 to 14, 17 to 18.5
MW-30	900	Monitoring well	20.3	2 to 3, 4 to 5,6.5 to 8,11 to 14, 15.5 to 17
MW-31	900	Monitoring well	20.3	2 to 2.5, 4 to 5, 6.5 to 8, 12.5 to 14
MW-32	1101	Monitoring well	20.3	2 to 3, 4 to 5, 7.5 to 9.5, 12.5 to 14, 16 to 18.5
MW-33	1101	Monitoring well	20.3	2 to 3, 4 to 5, 6.5 to 8, 12.5 to 14, 15.5 to 17
MW-34	1101	Monitoring well	20.3	2 to 3, 4 to 5, 8 to 9, 12.5 to 14, 17 to 18.5

To further identify and protect subsurface utilities at each drilling location, the first 5 feet of each boring was advanced using a hand auger and/or air knife. Soil samples were collected from the hand auger from approximately 2 to 3 and 4 to 5 feet bgs for field screening and sample collection. Field screening was conducted using a calibrated photoionization detector (PID) and visual inspection. Following utility clearance, soil borings were advanced to total depth using hollow-stem auger drilling methods. Soil samples were collected from a 1.5-inch-diameter split spoon sampler to total depth or refusal; see Table 3-1, above for the approximate sample depths in each boring. Soil from each boring location was logged using a combination of the Wentworth scale and the Unified Soil Classification System. Soil boring logs are provided in Appendix B.

Twelve (12) bank samples (T1-B1, T1-B2, T1-B3, T2-B1, T2-B2, T2-B3, T3-B1, T3-B2, T3-B3, T4-B1, T4-B2, and T4-B3) were collected along the southern shoreline of the Columbia River at a depth of 1 foot bgs via hand auger. To collect a representative dataset, the bank was separated into four transects and three samples were collected along each transect. Field staff observed visually impacted soil in bank transect samples T3-B2 and T4-B2. Based on field observations, these locations were submitted for the additional fingerprint analysis of petroleum hydrocarbons.

Soil samples submitted for analysis were collected in laboratory-provided glassware and placed in a cooler with ice. Samples were submitted to Pace Analytical, located in Mount Juliet, Tennessee, a DEQ-accredited laboratory, under standard chain-of-custody protocols. Soil samples were analyzed for the following:

- Ammonia by United States Environmental Protection Agency (USEPA) Method 350.1;
- Anions by USEPA Method 9056;
- Calcium hardness by Standard Method 2340C;
- Grain size by ASTM International (ASTM) Method ASTM D422;

- Metals by USEPA Method 6020B;
- Total petroleum hydrocarbons as diesel-range organics (TPH-DRO) and total petroleum hydrocarbons as heavy-oil-range organics (TPH-HRO) with and without silica gel cleanup by Northwest Method NWTPH-Dx;
- Total petroleum hydrocarbons as gasoline-range organics (TPH-GRO) by Northwest Method NWTPH-Gx;
- Polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270E selected ion monitoring (SIM);
- Semi-volatile organic compounds by USEPA Method 8270C;
- Sulfide by USEPA Method 9034/9030B;
- Total organic carbon (TOC) by USEPA Method 9060;
- Volatile organic compounds (VOCs) by USEPA Method 8260B;
- pH by USEPA Method 9045D; and
- PCBs by USEPA Method 8082A.

Blind duplicate and matrix spike/matrix spike duplicate samples were collected for data quality assurance purposes in accordance with the Quality Assurance Project Plan provided as Appendix B to the RI Work Plan (Arcadis 2022). Parent samples of blind duplicate samples collected are as follows:

- T1-B3-11012023 (DUP-1) – lost in transit as noted in Section 3.2;
- T2-B3-11012023 (DUP-2) – lost in transit as noted in Section 3.2;
- MW-29-11-14-11012023 (DUP-3);
- MW-30-2-3-11012023 (DUP-4);
- SB-17-4-5-11022023 (DUP-5);
- SB-18-2-4-11022023 (DUP-6);
- MW-30-11-14-11022023 (DUP-7);
- SB-22-6.5-9.5-11032023 (DUP-8);
- SB-21-9.5-11.3-11032023 (DUP-9);
- SB-19A-2-3-11072023 (DUP-10); and
- MW-28-11-4-11042023 (DUP-11).

As discussed in Section 3.2, soil collected from bank transect samples T3-B2 and T4-B2 and upland soil boring SB-26 from 11 to 12 feet bgs was additionally submitted for forensic analysis. Soil samples retained for forensic analyses were collected in laboratory-provided glassware and placed in a cooler with ice. Samples were submitted to Alpha Analytical, located in Westboro, Massachusetts, under standard chain-of-custody protocols. Soil samples were analyzed for paraffin, isoparaffin, aromatic, naphthalenes, and olefin (PIANO) by USEPA Method 8260D.

A sheen/staining map is shown on Figure 4. Boring logs are provided in Appendix B.

3.4 Monitoring Well Installation, Survey, and Sampling

After borehole advancement, nine of the soil borings were converted into monitoring wells. Well drilling and construction were conducted by Cascade under the direction of Arcadis. Each well was installed in accordance with the Construction, Maintenance, Alteration, Conversion and Abandonment of Monitoring Wells, Geotechnical Holes and Other Holes in Oregon (Oregon Administrative Rules 690-240-0043). Monitoring well construction details are presented in Table 3-2, below.

Table 3-2. Monitoring Well Depths and Well Screen Intervals

Location	Parcel Number	Total Depth (feet bgs)	Well Screen Length (feet)	Well Screen Interval (feet bgs)
MW-26	900	20	15	5 to 20
MW-27	900	20	15	5 to 20
MW-28	900	20	15	5 to 20
MW-29	900	20	15	5 to 20
MW-30	900	20	15	5 to 20
MW-31	900	20	15	5 to 20
MW-32	1101	20	15	5 to 20
MW-33	1101	20	15	5 to 20
MW-34A	1101	20	15	5 to 20

Each well was constructed of Schedule 40 polyvinyl chloride (PVC) with 0.010-inch slotted screen. Blank PVC casing was installed from the top of the screen to near surface grade. Filter pack sand was placed in the annular space of the boreholes to approximately 1 foot above the top of the well screen, followed by hydrated bentonite chips to approximately 1 foot bgs and a flush-mount, traffic-rated well box set in concrete. Well construction details are provided on the logs in Appendix B.

Following installation, monitoring wells were developed by Cascade under the direction of Arcadis using a surge block and were purged of at least 10 well volumes with a downhole pump to remove fine-grained sediments from the vicinity of the well screen. On November 9 and 10, 2023, Otak, Inc., located in Portland, Oregon, surveyed the finished well locations and ground surface elevations. The horizontal coordinates were referenced to North American Datum of 1983, and the vertical coordinates were referenced to North American Vertical Datum of 1988. Survey data are provided in Appendix C.

3.5 Investigation-Derived Waste Disposal

Soil cuttings and wastewater generated during the investigation activities were contained in U.S. Department of Transportation approved 55-gallon steel drums. The drums were labeled and stored onsite pending waste characterization and later transported to approved disposal facilities operated by Clean Harbors, Inc. in Grassy Mountain, Utah and Deer Trail, Colorado. Copies of the waste manifests are provided in Appendix D.

4 Results and Discussion

This section discusses the soil analytical results and site geology from the October and November 2023 investigation activities.

4.1 Soil Results

Soil analytical results were screened against generic Oregon risk-based concentrations (RBCs) for soil ingestion, dermal contact, and inhalation for occupational (RBCss Occ); dermal contact and inhalation for construction workers (RBCss CW); and leaching to groundwater (RBCsw) exposure scenarios.

Soil samples collected from soil borings SB-17 through SB-29, MW-26 through MW-34, and T1 through T4 were submitted to Pace Analytical for analysis. COIs were either not detected in these samples or were detected at concentrations below the applicable soil RBCs, with the exception of the locations and samples presented in Table 4-1, below.

Table 4-1. Summary of Soil RBC Exceedances

Constituent	Analytical Method	Location(s) Exceeding RBCss Occ	Location(s) Exceeding RBCss CW	Location(s) Exceeding RBCsw
TPH-DRO	NWTPH-Dx	--	SB-24	MW-26, MW-29, MW-31, MW-32, SB-18, SB-18A, SB-19, SB-21 through SB-27, SB-29, T3-B2, T3-B3, T4-B2, and T4-B3
TPH-DRO	NWTPH-Dx-SGT	--	SB-24	MW-26, MW-29, MW-31, MW-32, SB-18, SB-18A, SB-19, SB-21 through SB-27, SB-29, T3-B2, T3-B3, T4-B2, and T4-B3
Benzene	USEPA 8260	--	--	DUP-9 (parent sample SB-21), SB-29, MW-27, and MW-34
1,2-Dichloroethane	USEPA 8260	--	--	SB-23
Naphthalene	USEPA 8260	--	--	SB-29 and T4-B2
Benzo(a) pyrene	USEPA 8270E-SIM	SB-19	--	--
Benzo(a) anthracene	USEPA 8270E	SB-19	--	--
Benzo(a) pyrene	USEPA 8270E	SB-19 and SB-22	--	--
Benzo(b) fluoranthene	USEPA 8270E	SB-19	--	--
Dibenzo(a,h) anthracene	USEPA 8270E	SB-19	--	--
Naphthalene	USEPA 8270E	SB-19 and SB-22	--	T4-B2

Constituent	Analytical Method	Location(s) Exceeding RBCss Occ	Location(s) Exceeding RBCss CW	Location(s) Exceeding RBCsw
Arsenic	USEPA 6020B	MW-26 through MW-34, SB-17, SB-18, SB-18A, SB-19, SB-19A, and SB-20 through SB-29, T1-B1, T1-B2, T2-B2, T3-B3, T3-B1, and T4-B1	MW-31, MW-32, SB-17, SB-18, SB-18A, SB-20 through SB-23, T3-B2, TB-B3, T4-B2, and T4-B3	--
Lead	USEPA 6020B	--	M-32, SB-21, SB-27, T3-B2, T3-B3, T4-B2, and T4-B3	MW-26 through MW-34, SB-17, SB-18, SB-18A, SB-19, SB-19A, SB-21 through SB-26, SB-8, SB-29, T1-B2, T2-B2, T2-B3, and T3-B1

Note:
-- = not applicable

Soil analytical results are presented in Tables 1 through 7. Results from the current investigation are shown on Figures 5 through 7. The soil laboratory analytical reports and chain-of-custody documentation are provided in Appendix E.

4.2 Forensic Analysis

As discussed in Section 3.2, select soil samples (T3-B2 and T4-B2 and SB-26-11-12) were collected for forensic analysis to evaluate the hydrocarbon signatures between bank transect (T3-B2 and T4-B2) and upland (SB-26-11-12) soil samples to provide a better understanding of petroleum hydrocarbon distribution from historical site operations. These three soil samples were submitted to Alpha Analytical laboratory for PIANO analysis. PIANO analysis provides quantified concentrations for approximately 140 individual compounds in the gasoline range (~C4 to C15), including the PIANO compound classes listed above as well as select oxygenates and lead scavengers. Oxygenates included in the PIANO analysis are methyl tert-butyl ether (MTBE), tertiary butanol (TBA), diisopropyl ether (DIPE), tertiary amyl-ether (TAME), and methylcyclopentadienyl manganese tricarbonyl (MMT). Lead scavenger additives included in the PIANO analysis are 1,2-dichloroethane (EDC) and 1,2-dibromoethane (EDB). PIANO analysis results are used to evaluate similarities and/or differences in distributions and concentrations of gasoline-related compounds in soil, groundwater, and LNAPL. In addition to the PIANO analysis, TPH-GRO and TPH-DRO (with and without silica gel treatment; SGT) chromatograms for the T3-B2 and T4-B2 and SB-26 soil samples were reviewed to identify the presence of petroleum hydrocarbon constituents in the gasoline, diesel, and residual oil ranges.

Review of the PIANO analysis results and the TPH-GRO and TPH-DRO chromatograms indicate primary hydrocarbon signatures for the three soil samples as follows:

- *T3-B2 – Severely weathered gasoline and severely weathered crude oil***.** PIANO analysis results indicate limited detections of gasoline-range constituents including undecane (n-C11) and toluene. Both constituents were detected at concentrations less than 1 microgram per kilogram (µg/kg). The TPH-GRO chromatogram indicated the presence of heavier gasoline-range hydrocarbons in the 8- to 12-minute range on the x-axis

(Figure 11). These results indicate the presence of severely weathered gasoline in soil at T3-B2. The TPH-DRO chromatograms indicate the presence of severely weathered crude oil based on the chromatogram shape and limited resolved peaks above the unresolved complex mixture (UCM) curve. The TPH-DRO and TPH-HRO concentrations are similar with and without SGT indicating detected TPH-DRO and TPH-HRO concentrations are primarily petroleum hydrocarbons and are not associated with petroleum degradation byproducts or naturally occurring organic matter.

- *T4-B2 – Partially weathered gasoline and severely weathered crude oil***.** PIANO analysis results indicate detections of numerous gasoline-range constituents consistent with partially weathered gasoline in soil at T4-B2. The TPH-GRO chromatogram indicated the presence of petroleum hydrocarbon constituents across the gasoline range (3- to 12-minute range on the x-axis) (Figure 12). These results indicate the presence of partially weathered gasoline in soil at T4-B2. The TPH-DRO chromatograms indicate the presence of severely weathered crude oil based on the chromatogram shape and limited resolved peaks above the UCM curve. The TPH-DRO and TPH-HRO concentrations are similar with and without SGT indicating detected TPH-DRO and TPH-HRO concentrations are primarily petroleum hydrocarbons and are not associated with petroleum degradation byproducts or naturally occurring organic matter.
- *SB-26-11-12 – Weathered gasoline and severely weathered crude oil***.** PIANO analysis results indicate detections of gasoline-range constituents consistent with weathered gasoline. The TPH-GRO chromatogram indicated the presence of heavier gasoline-range hydrocarbons in the 8- to 12-minute range on the x-axis (Figure 13). These results indicate the presence of weathered gasoline in soil at SB-26-11-12. The TPH-DRO chromatograms indicate the presence of severely weathered crude oil based on the chromatogram shape and limited resolved peaks above the UCM curve. The TPH-DRO and TPH-HRO concentrations are similar with and without SGT indicating detected TPH-DRO and TPH-HRO concentrations are primarily petroleum hydrocarbons and are not associated with petroleum degradation byproducts or naturally occurring organic matter.

The results for the PIANO analysis and TPH chromatogram evaluation indicate that the T3-B2, T4-B2, and SB-26-11-12 soil samples contain gasoline, diesel, and residual oil range petroleum hydrocarbons. TPH-DRO and TPH-HRO in the three soil samples is consistent with severely weathered crude oil. TPH-DRO and TPH-HRO concentrations are similar with and without SGT and are similar across the three soil samples, suggesting there are mostly non-polar hydrocarbons . The T4-B2 soil sample contained partially weathered gasoline while the T3-B2 and SB-26-11-12 soil samples contained severely weathered and weathered gasoline, respectively. Higher TPH-GRO concentrations and less weathered gasoline at T4-B2 compared with SB-26-11-12 suggests a release of gasoline may have occurred between SB-26-11-12 and T4-B2.

4.3 Geology

Soil encountered during drilling consisted of silty, fine- to coarse-grained sand and gravel to the maximum explored depth of approximately 20.3 feet bgs. Consistent with prior observations, organic and wood debris were observed intermittently in all the soil borings. Moist to wet soils were encountered between 4.5 and 11 feet bgs in each boring.

Overall, the observed geology varied significantly throughout the site. Many of the borings contained a large percentage of well-graded sands and gravels, trace organic material such as woody debris, and trace inorganic matrials like brick and pieces of glass in the upper 10 feet, indicating the presence of fill material from past excavations and redevelopment activities. The widespread excent of fill material is consistent with site history.

Soil borings in the northern portion of each parcel and in the City of Astoria ROW near the Columbia River bank contained a higher percentage of coarse-grained soils and smaller percentages of fine-grained soils. Soil borings in the southern area of each parcel contained a higher percentage of fine-grained soils (silt and clay) and smaller percentages of coarse-grained soils (sands and gravels).

Soil analytical results for grain size confirmed lithiolgical observations by the Arcadis field geologists. Grain size was analyzed by ASTM D422. The average percentage of soils from samples collected in borings in the southern and northern areas of each parcel that passed through Sieve #4 were 89.34% and 81.94%, respectively; Sieve #10, 87.45% and 78.34%, respectively; Sieve #100, 60.41% and 46.78%, respectively; Sieve #200, 54.67% and 39.50%, respectively; Hydrometer 1 Passing, 45.93% and 34.644%, respectively; Hydrometer 4 Passing, 37.76% and 29.73%, respectively; and Hydrometer 8 Passing, 19.33% and 15.27%, respectively. Grain size results indicate coarse-grained soils increase with proximity to the Columbia River.

Additional information on the encountered soil is provided on the boring logs in Appendix B. A cross-section location map and updated cross sections are shown on Figures 8, 9, and 10. Updated cross sections will be provided with the RI Report with pending groundwater data and sediment investigation results.

5 Planned Activities and Recommendations

The first routine groundwater monitoring event, including the wells installed during the 2023 upland RI, was completed in February 2024. Groundwater sampling data was presented in the *2024 First Semi-Annual Groundwater Monitoring Report*, submitted to DEQ on May 9, 2024 (Arcadis 2024).

Arcadis is proceeding with the in-water components of the RI in summer and fall 2024, which are currently in progress. The in-water components of the RI include sediment sampling, porewater sampling, a sheen evaluation, and an assessment of groundwater-surface water interactions. Following this effort, Arcadis will further engage with the DEQ to discuss and prepare the comprehensive RI Report. The RI Report will include an updated conceptual site model (CSM) and will identify any remaining data gaps needed to delineate the extent of COIs and light nonaqueous phase liquid (LNAPL) in site media.

6 References

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Clatsop County. 2022. Clatsop County Property Information for Account 21816, Tax Parcel 80907DA00900. Retrieved October 2022 from: https://apps.co.clatsop.or.us/property/

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Tables

Table 1. Soil Analytical Data – Total Petroleum Hydrocarbons
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	TPH-GRO	TPH-DRO	TPH-DRO with SGC	TPH-HRO	TPH-HRO with SGC
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**20,000**	**14,000**	**14,000**	**36,000**	**36,000**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**9,700**	**4,600**	**4,600**	**11,000**	**11,000**
DEQ RBC Leaching to Groundwater (RBCsw)			**>Max**	**130**	**130**	**>Max**	**>Max**
MW-26	11/4/2023	2 - 3	2.59 J	89.5	79.7	160	105
MW-26	11/4/2023	4 - 5	220	**418**	**502**	60.2	43.7
MW-26	11/4/2023	6.5 - 8	1.87 J	**741**	**1,160**	180	186
MW-26	11/4/2023	12.5 - 14	69.5	29.5	32.8	44.4	30
MW-26	11/4/2023	15.5 - 17	45.1	11.3	10.9	<14.6	<14.6
MW-27	11/2/2023	2 - 3	2.02 B J Q	25.4	26.3	69.6	42.1
MW-27	11/2/2023	4 - 5	16.8 B Q	<5.84	<5.84	5.20 J	5.20 J
MW-27	11/4/2023	6.5 - 8	7.02	20.6	22.1	47.3	35.8
MW-27	11/4/2023	11 - 12.5	10	7.50 J	4.20 J	34.4	21.7
MW-27	11/4/2023	15.5 - 17	7.10 J	6.97 J	<10.3	63	36.9
MW-28	11/4/2023	2 - 3	7.79	4.37 J	4.37 J	13.1 J	13.1 J
MW-28	11/4/2023	4 - 5	4.81 J	<6.04	<6.04	<15.1	<15.1
MW-28	11/4/2023	8 - 9.5	4.15 J	23.6	14.2	87.9	38.1
MW-28	11/4/2023	11 - 14	3.98 J	5.96 J	2.59 J	34.8	11.3 J
MW-28*	11/4/2023	11 - 14	8.76 J	19.5	10.6	152	78.3
MW-28	11/4/2023	17 - 18.5	3.59 J	<6.55	<6.55	11.3 J	11.3 J
MW-29	11/1/2023	6.5 - 8	110	**1,070**	**1,140**	234	209
MW-29	11/1/2023	11 - 14	127	103	112	115	93.1
MW-29*	11/1/2023	11 - 14	72.8	72.9	69.4	75	59.3
MW-29	11/1/2023	17 - 18.5	<7.61	27.9	27.7	70	35.6
MW-30	11/1/2023	2 - 3	4.45 B	28.9	24.2	61	48.9
MW-30*	11/1/2023	2 - 3	5.13 B	62.4	56.2	120	92.6
MW-30	11/1/2023	4 - 5	1.87 B J	96.3	93.1	379	380
MW-30	11/2/2023	6.5 - 8	<4.02	14.4	14.9	14.4	8.77 J
MW-30	11/2/2023	11 - 14	7.74	11.3	6.54	110	74
MW-30*	11/2/2023	11 - 14	3.92 B J	16.9	9.5	110	63.4
MW-30	11/2/2023	15.5 - 17	4.16 B J	<7.67	<7.67	12.9 J	12.9 J
MW-31	10/31/2023	2 - 2.5	4.22 B	**186**	**150**	348	237

Table 1. Soil Analytical Data – Total Petroleum Hydrocarbons
Former Chevron Bulk Plant No. 1001838
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Astoria, Oregon

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Sample ID	Sample Date	Sample Depth	TPH-GRO	TPH-DRO	TPH-DRO with SGC	TPH-HRO	TPH-HRO with SGC
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**20,000**	**14,000**	**14,000**	**36,000**	**36,000**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**9,700**	**4,600**	**4,600**	**11,000**	**11,000**
DEQ RBC Leaching to Groundwater (RBCsw)			**>Max**	**130**	**130**	**>Max**	**>Max**
MW-31	10/31/2023	4 - 5	248	**2,060**	**1,650**	136	90
MW-31	10/31/2023	6.5 - 8	166	**458**	**500**	38	40.5
MW-31	10/31/2023	12.5 - 14	41.1	**193**	**209**	273	232
MW-32	11/6/2023	2 - 3	3.94 B J	<5.31	<5.31	5.45 J	5.45 J
MW-32	11/6/2023	4 - 5	2.39 B J	2.10 J	2.10 J	8.95 J	8.95 J
MW-32	11/6/2023	7.5 - 9.5	12.9 B	**2,610**	**2,570**	1140	950
MW-32	11/6/2023	12.5 - 14	8.76 B	12.2	11.2	17.3	8.76 J
MW-32	11/6/2023	16 - 18.5	2.04 B J	2.26 J	2.26 J	10.7 J	10.7 J
MW-33	11/6/2023	2 - 3	<3.57	8.31	4.98	25.5	20.2
MW-33	11/6/2023	4 - 5	<4.20	3.10 J	2.25 J	23	19.3
MW-33	11/6/2023	6.5 - 8	1.88 J	85.8	74	60.4	28.4
MW-33	11/6/2023	12.5 - 14	49.1	2.54 J	2.54 J	5.01 J	5.01 J
MW-33	11/6/2023	15.5 - 17	18.7	52.5	38.7	32.9	13.6
MW-34	11/6/2023	2 - 3	<3.89	5.81	4.43 J	34.5	31.9
MW-34	11/6/2023	4 - 5	<3.51	<4.76	<4.76	9.21 J	9.21 J
MW-34	11/6/2023	8 - 9	2.52 J	8.68 J	6.66 J	99.2	88.3
MW-34	11/6/2023	12.5 - 14	7.54 B	4.58 J	3.19 J	28.1	17.2 J
MW-34	11/6/2023	17 - 18.5	4.53 B	<5.27	<5.27	<13.2	<13.2
SB-17	11/2/2023	1.5 - 2.5	1.69 B J	3.13 J	3.13 J	4.77 J	4.77 J
SB-17	11/2/2023	4 - 5	1.74 B J	5.78	5.95	9.01 J	6.29 J
SB-17*	11/2/2023	4 - 5	3.64	2.55 J	2.55 J	5.46 J	5.46 J
SB-18	11/2/2023	2 - 4	5.13	**244**	**215**	171	112
SB-18*	11/2/2023	2 - 4	3.15	**235**	**244**	180	148
SB-18	11/2/2023	4 - 5	3.03 J	25.1	22.3	56.8	48.6
SB-18	11/2/2023	6.5 - 7.5	7.79	64.9	61.8	44.6	32.8
SB-18	11/2/2023	9.5 - 10.5	301	**1,550**	**1,670**	178	171
SB-18A	11/7/2023	2 - 3	1.28 B J	**560**	**488**	383	293
SB-18A	11/7/2023	4 - 5	1.58 B J	53.2	45.6	62.7	42.5

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Sample ID	Sample Date	Sample Depth	TPH-GRO	TPH-DRO	TPH-DRO with SGC	TPH-HRO	TPH-HRO with SGC
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**20,000**	**14,000**	**14,000**	**36,000**	**36,000**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**9,700**	**4,600**	**4,600**	**11,000**	**11,000**
DEQ RBC Leaching to Groundwater (RBCsw)			**>Max**	**130**	**130**	**>Max**	**>Max**
SB-19	11/2/2023	2 - 3	6.07	27.3 J	23.8	136	127
SB-19	11/2/2023	4 - 5	<5.98	3.99 J	3.99 J	13.8 J	13.8 J
SB-19	11/2/2023	9.5 - 10.2	480 T8	**439**	**500**	19.4	<114
SB-19A	11/7/2023	2 - 3	2.73 B J	7.71	4.03 J	16.9	12.7 J
SB-19A*	11/7/2023	2 - 3	<4.45	15.5	7.23 J	36.6	22.9 J
SB-19A	11/7/2023	4 - 5	<4.35	4.79 J	3.48 J	44.1	42.8
SB-20	11/2/2023	2 - 3	<3.97	11.5	13.3	42.9	63.9
SB-20	11/2/2023	4 - 5	1.92 J	2.56 J	2.56 J	6.35 J	6.35 J
SB-21	11/2/2023	2 - 2.5	6.33 T8	56.9	55.4	299	238
SB-21	11/2/2023	4 - 5	1.62 J	13.8 J	13.8 J	56.5 J	56.5 J
SB-21	11/3/2023	8 - 9.5	547	**159**	**165**	191	147
SB-21	11/3/2023	9.5 - 11.3	18.6 B	102	114	126	95.4
SB-21*	11/3/2023	9.5 - 11.3	763	127	**146**	150	126
SB-22	11/2/2023	2 - 3	3.21	52.7 J	50.9 J	627	707
SB-22	11/2/2023	4 - 5	2.90 J	4.78 J	3.76 J	34.5	30.3
SB-22	11/3/2023	6.5 - 9.5	2.02 B J	<5.67	<5.67	6.52 J	6.52 J
SB-22*	11/3/2023	6.5 - 9.5	2.89 B J	7.27	4.09 J	25.8	14.7 J
SB-22	11/3/2023	11 - 12.5	264	**144**	**164**	142	117
SB-23	11/1/2023	2 - 3	3.59 B	25.4	27.4	64.3	55.3
SB-23	11/1/2023	4 - 5	88.1	**1,000**	**1,060**	200	178
SB-23	11/4/2023	6.5 - 8	770	74.4	78.7	15.9	12.1 J
SB-23	11/4/2023	11 - 12.5	15	123	113	226	173
SB-23	11/4/2023	17 - 18.5	8.31	3.23 J	3.23 J	5.62 J	5.62 J

Table 1. Soil Analytical Data – Total Petroleum Hydrocarbons
Former Chevron Bulk Plant No. 1001838
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ARCADIS

Sample ID	Sample Date	Sample Depth	TPH-GRO	TPH-DRO	TPH-DRO with SGC	TPH-HRO	TPH-HRO with SGC
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**20,000**	**14,000**	**14,000**	**36,000**	**36,000**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**9,700**	**4,600**	**4,600**	**11,000**	**11,000**
DEQ RBC Leaching to Groundwater (RBCsw)			**>Max**	**130**	**130**	**>Max**	**>Max**
SB-24	10/31/2023	1.5 - 2	3.46 B J	**167**	**149**	422	305
SB-24	10/31/2023	4 - 5	19.1 B	**7,140**	**5,320**	2270	1300
SB-24	10/31/2023	8 - 9.5	9.61 B	154 J3 J5 J6	111 J3 J5	84	39
SB-24	10/31/2023	11 - 12.5	7.48 B J	36.4	59.5	202	136
SB-24	10/31/2023	15.5 - 17	3.29 B J	10.7	6.41 J	102	49.8
SB-25	11/7/2023	2 - 3	1.95 B J	<5.63	<5.63	<14.1	<14.1
SB-25	11/7/2023	4 - 5	<5.13	<5.65	<5.65	<14.1	<14.1
SB-25	11/7/2023	8 - 8.8	3.02 B J	47.6	42.6	144	105
SB-25	11/7/2023	11 - 12	355	**1,490**	**1,550**	1110	1020
SB-26	11/7/2023	2 - 3	44.8	33	23.5	178	118
SB-26	11/7/2023	4 - 5	<3.39	121	90.7	481	377
SB-26	11/7/2023	8 - 9	1.92 B J	**264**	**274**	799	596
SB-26	11/7/2023	11 - 12	113	**527**	**612**	523	506
SB-27	11/7/2023	2 - 3	1.35 B J	3.03 J	3.03 J	10.9 J	10.9 J
SB-27	11/7/2023	4 - 5	<5.04	7.51	4.20 J	30.7	11.2 J
SB-27	11/7/2023	8 - 9.1	1.34 B J	52	49	148	127
SB-27	11/7/2023	9.5 - 10.2	532	**1,150**	**1,200**	970	974
SB-28	11/6/2023	2 - 3	1.49 B J	2.21 J	2.21 J	10.7 J	10.7 J
SB-28	11/6/2023	4 - 5	3.52 B J	71.8	87.8	264	236
SB-28	11/7/2023	12.5 - 13.5	7.85 B	15.9	15.1	26.6	16.6
SB-28	11/7/2023	18.5 - 19.8	<4.05	4.47 J	3.30 J	16.8	8.46 J
SB-29	11/6/2023	2 - 3	2.30 B J	12.1	10.7	66.7	45.3
SB-29	11/6/2023	4 - 5	<3.60	83.3	75.3	474	367
SB-29	11/7/2023	9.5 - 10.5	225	**202**	**253**	200	171
SB-29	11/7/2023	11 - 12.5	235	**279**	**284**	292	182
SB-29	11/7/2023	15.5 - 17	39.3	90.4	95.6	126	77.5

Table 1. Soil Analytical Data – Total Petroleum Hydrocarbons
Former Chevron Bulk Plant No. 1001838
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Astoria, Oregon

Sample ID	Sample Date	Sample Depth	TPH-GRO	TPH-DRO	TPH-DRO with SGC	TPH-HRO	TPH-HRO with SGC
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**20,000**	**14,000**	**14,000**	**36,000**	**36,000**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**9,700**	**4,600**	**4,600**	**11,000**	**11,000**
DEQ RBC Leaching to Groundwater (RBCsw)			**>Max**	**130**	**130**	**>Max**	**>Max**
T1-B1	11/1/2023	--	1.51 B J	8.93	4.14 J	42.9	20.2
T1-B2	11/1/2023	--	1.55 B J	9.76 J	7.51	89.4	63
T2-B1	11/1/2023	--	2.24 B J	<4.44	<4.44	<11.1	<11.1
T2-B2	11/1/2023	--	3.44 B J	22.0 J	16.4 B	103	95.2
T2-B3	11/1/2023	--	2.37 J	32.6 J	31.7 B J	356	342
T3-B1	11/1/2023	--	2.20 B J	<84.8	<84.8	314	257
T3-B2	11/1/2023	--	88	**596 V**	**748 V**	319	322
T3-B3	11/1/2023	--	74.7	**243**	**208**	224	232
T4-B1	11/1/2023	--	3.08 B J	4.49 J	4.64 B	30.5	19.6
T4-B2	11/1/2023	--	1800	**744**	**822**	435	486
T4-B3	11/1/2023	--	91.5	**905**	**887**	541	505

Notes:

1. **BOLD and yellow highlighted** values exceed the leaching to groundwater for occupational (RBCsw Occ)
2. **BOLD and orange highlighted** values exceed the RBCss CW.
3. Analytical concentrations are presented in milligrams per kilogram (mg/kg).
4. Sample depth in feet below ground surface.

Acronyms and Abbreviations:

-- = not applicable, not available, or not analyzed

< = not detected at or greater than the laboratory method detection limit (MDL) or laboratory reporting limit (RL)

* = duplicate sample

DEQ = Oregon Department of Environmental Quality

>Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario

RBC = risk-based concentration

SGC = silica gel cleanup

Table 1. Soil Analytical Data – Total Petroleum Hydrocarbons
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	TPH-GRO	TPH-DRO	TPH-DRO with SGC	TPH-HRO	TPH-HRO with SGC
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**20,000**	**14,000**	**14,000**	**36,000**	**36,000**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**9,700**	**4,600**	**4,600**	**11,000**	**11,000**
DEQ RBC Leaching to Groundwater (RBCsw)			**>Max**	**130**	**130**	**>Max**	**>Max**

Laboratory Qualifiers:

B = The same analyte is found in the associated blank.

J = The concentration was detected between the MDL and RL; therefore, the reported concentration is an estimate.

J3 = The associated batch quality control (QC) was outside the established QC range for precision.

J5 = The sample matrix interfered with the ability to make any accurate determination; spike value is high.

J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Q = Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should beconsidered minimum values.

T8 = Sample(s) received past/too close to holding time expiration.

V = The sample concentration is too high to evaluate accurate spike recoveries.

Current Analytical Methods:

Samples analyzed by NWTPH-Gx:

TPH-GRO = total petroleum hydrocarbons as gasoline-range organics

Samples analyzed by NWTPH-Dx:

TPH-DRO = total petroleum hydrocarbons as diesel-range organics

TPH-HRO = total petroleum hydrocarbons as heavy-oil-range organics

Samples analyzed by NWTPHDx-SGT:

TPH-DRO with SGC

TPH-HRO with SGC

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2-Trichlorotrifluoroethane (Freon 113)	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	870,000	--	26	--	260	29,000	--	--	--	--	--	6,900
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	470,000	--	54	--	3,200	13,000	--	--	--	--	--	2,900
DEQ RBC Leaching to Groundwater (RBCsw)			--	880	--	0.029	--	0.2	32	--	--	--	--	--	48
MW-26	11/4/2023	2 - 3	<0.00385	<0.00385	<0.00385	<0.00385	<0.00385	<0.00385	<0.00385	<0.00385	<0.0192	<0.0192	<0.0192	<0.00770	<0.00770
MW-26	11/4/2023	4 - 5	<0.00553	<0.00553	<0.00553	<0.00553	<0.00553	<0.00553	<0.00553	<0.00553	<0.0277	<0.0277	<0.0277	<0.0111	0.00573 J
MW-26	11/4/2023	6.5 - 8	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.0211	<0.0211	<0.0211	<0.00844	<0.00844
MW-26	11/4/2023	12.5 - 14	<0.00395	<0.00395	<0.00395	<0.00395	<0.00395	<0.00395	<0.00395	<0.00395	<0.0198	<0.0198	<0.0198	<0.00790	0.00458 J
MW-26	11/4/2023	15.5 - 17	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.0245	<0.0245	<0.0245	<0.00980	0.00388 J
MW-27	11/2/2023	2 - 3	<0.00398	<0.00398	<0.00398	<0.00398	<0.00398	<0.00398	<0.00398	<0.00398	<0.0199	<0.0199	<0.0199	<0.00797	<0.00797
MW-27	11/2/2023	4 - 5	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.0249	<0.0249	<0.0249	0.0447	0.029
MW-27	11/4/2023	6.5 - 8	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.00497	<0.0249	<0.0249	<0.0249	0.00857 J	0.00376 J
MW-27	11/4/2023	11 - 12.5	<0.00843	<0.00843	<0.00843	<0.00843	<0.00843	<0.00843	<0.00843	<0.00843	<0.0421	<0.0421	<0.0421	0.0231	0.0149 J
MW-27	11/4/2023	15.5 - 17	<0.0123	<0.0123	<0.0123	<0.0123	<0.0123	<0.0123	<0.0123	<0.0123	<0.0619	<0.0619	<0.0619	0.0122 J	<0.0247
MW-28	11/4/2023	2 - 3	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.0260	<0.0260	<0.0260	0.00772 J	0.0248
MW-28	11/4/2023	4 - 5	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.00521	<0.0260	<0.0260	<0.0260	<0.0104	<0.0104
MW-28	11/4/2023	8 - 9.5	<0.00555	<0.00555	<0.00555	<0.00555	<0.00555	<0.00555	<0.00555	<0.00555	<0.0277	<0.0277	<0.0277	0.0255	0.0146
MW-28	11/4/2023	11 - 14	<0.00544	<0.00544	<0.00544	<0.00544	<0.00544	<0.00544	<0.00544	<0.00544	<0.0272	<0.0272	<0.0272	0.027	0.0196
MW-28*	11/4/2023	11 - 14	<0.00891	<0.00891	<0.00891	<0.00891	<0.00891	<0.00891	<0.00891	<0.00891	<0.0445	<0.0445	<0.0445	0.0627	0.0363
MW-28	11/4/2023	17 - 18.5	<0.00583	<0.00583	<0.00583	<0.00583	<0.00583	<0.00583	<0.00583	<0.00583	<0.0291	<0.0291	<0.0291	0.0257	0.0339
MW-29	11/1/2023	6.5 - 8	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.0232	<0.0232	<0.0232	0.0539	0.0111
MW-29	11/1/2023	11 - 14	<0.00636	<0.00636	<0.00636	<0.00636	<0.00636	<0.00636	<0.00636	<0.00636	<0.0317	<0.0317	<0.0317	0.0671	0.0177
MW-29*	11/1/2023	11 - 14	<0.00425	<0.00425	<0.00425	<0.00425	<0.00425	<0.00425	<0.00425	<0.00425	<0.0213	<0.0213	<0.0213	0.0497	0.0163
MW-29	11/1/2023	17 - 18.5	<0.00761	<0.00761	<0.00761	<0.00761	<0.00761	<0.00761	<0.00761	<0.00761	<0.0380	<0.0380	<0.0380	0.0106 J	0.0148 J
MW-30	11/1/2023	2 - 3	<0.00384	<0.00384	<0.00384	<0.00384	<0.00384	<0.00384	<0.00384	<0.00384	<0.0192	<0.0192	<0.0192	0.00304 J	0.00594 J
MW-30*	11/1/2023	2 - 3	<0.00400	<0.00400	<0.00400	<0.00400	<0.00400	<0.00400	<0.00400	<0.00400	<0.0200	<0.0200	<0.0200	0.0085	0.0123
MW-30	11/1/2023	4 - 5	<0.00355	<0.00355	0.00170 J	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<0.0177	<0.0177	<0.0177	0.00227 J	0.00404 J
MW-30	11/2/2023	6.5 - 8	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.0201	<0.0201	<0.0201	<0.00804	<0.00804
MW-30	11/2/2023	11 - 14	<0.00591	<0.00591	<0.00591	<0.00591	<0.00591	<0.00591	<0.00591	<0.00591	<0.0295	<0.0295	<0.0295	0.00799 J	0.0106 J
MW-30*	11/2/2023	11 - 14	<0.00823	<0.00823	<0.00823	<0.00823	<0.00823	<0.00823	<0.00823	<0.00823	<0.0412	<0.0412	<0.0412	0.00781 J	0.0110 J
MW-30	11/2/2023	15.5 - 17	<0.00858	<0.00858	<0.00858	<0.00858	<0.00858	<0.00858	<0.00858	<0.00858	<0.0429	<0.0429	<0.0429	<0.0171	<0.0171
MW-31	10/31/2023	2 - 2.5	<0.00332	<0.00332	<0.00332	<0.00332	<0.00332	<0.00332	<0.00332	<0.00332	<0.0166	<0.0166	<0.0166 J3	0.00576 J	0.00934
MW-31	10/31/2023	4 - 5	<0.00495	<0.00495	<0.00495	<0.00495	<0.00495	<0.00495	<0.00495	<0.00495	<0.0248	<0.0248	<0.0248	0.0533	0.0422

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2-Trichlorotrifluoroethane (Freon 113)	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	870,000	--	26	--	260	29,000	--	--	--	--	--	6,900
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	470,000	--	54	--	3,200	13,000	--	--	--	--	--	2,900
DEQ RBC Leaching to Groundwater (RBCsw)			--	880	--	0.029	--	0.2	32	--	--	--	--	--	48
MW-31	10/31/2023	6.5 - 8	<0.00505	<0.00505	<0.00505	<0.00505	<0.00505	<0.00505	<0.00505	<0.00505	<0.0252	<0.0252	<0.0252	0.0111	0.0106
MW-31	10/31/2023	12.5 - 14	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.0332	<0.0332	<0.0332	0.0208	0.00576 J
MW-32	11/6/2023	2 - 3	<0.00451	<0.00451	<0.00451	<0.00451	<0.00451	<0.00451	<0.00451 J4	<0.00451	<0.0225 C3	<0.0225	<0.0225	<0.00900	<0.00900
MW-32	11/6/2023	4 - 5	<0.00880	<0.00880	<0.00880	<0.00880	<0.00880	<0.00880	<0.00880 J4	<0.00880	<0.0440 C3	<0.0440	<0.0440	0.00740 J	0.00800 J
MW-32	11/6/2023	7.5 - 9.5	<0.0108	<0.0108	<0.0108	<0.0108	<0.0108	<0.0108	<0.0108 J4	<0.0108	<0.0538 C3	<0.0538	<0.0538	0.0529	0.0237
MW-32	11/6/2023	12.5 - 14	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111 J4	<0.0111	<0.0556 C3	<0.0556	<0.0556	<0.0222	<0.0222
MW-32	11/6/2023	16 - 18.5	<0.00418	<0.00418	<0.00418	<0.00418	<0.00418	<0.00418	<0.00418 J4	<0.00418	<0.0209 C3	<0.0209	<0.0209	<0.00836	<0.00836
MW-33	11/6/2023	2 - 3	<0.00357	<0.00357	<0.00357	<0.00357	<0.00357 C3	<0.00357	<0.00357	<0.00357	<0.0178	<0.0178	<0.0178	<0.00712	<0.00712
MW-33	11/6/2023	4 - 5	<0.00420	<0.00420	<0.00420	<0.00420	<0.00420 C3	<0.00420	<0.00420	<0.00420	<0.0211	<0.0211	<0.0211	<0.00840	<0.00840
MW-33	11/6/2023	6.5 - 8	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402 C3	<0.00402	<0.00402	<0.00402	<0.0201	<0.0201	<0.0201	0.00667 J	0.0254
MW-33	11/6/2023	12.5 - 14	<0.00474	<0.00474	<0.00474	<0.00474	<0.00474 C3	<0.00474	<0.00474	<0.00474	<0.0237	<0.0237	<0.0237	0.00509 J	0.0145
MW-33	11/6/2023	15.5 - 17	<0.00406	<0.00406	<0.00406	<0.00406	<0.00406 C3	<0.00406	<0.00406	<0.00406	<0.0203	<0.0203	<0.0203	<0.00811	0.00758 J
MW-34	11/6/2023	2 - 3	<0.00389	<0.00389	<0.00389	<0.00389	<0.00389	<0.00389	<0.00389	<0.00389	<0.0195	<0.0195	<0.0195	<0.00778	<0.00778
MW-34	11/6/2023	4 - 5	<0.00351	<0.00351	<0.00351	<0.00351	<0.00351	<0.00351	<0.00351	<0.00351	<0.0175	<0.0175	<0.0175	<0.00701	<0.00701
MW-34	11/6/2023	8 - 9	<0.00396	<0.00396	<0.00396	<0.00396	<0.00396	<0.00396	<0.00396	<0.00396	<0.0198	<0.0198	<0.0198	0.0121	0.0317
MW-34	11/6/2023	12.5 - 14	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142 J4	<0.0142	<0.0708 C3	<0.0708	<0.0708	0.0595	0.0595
MW-34	11/6/2023	17 - 18.5	<0.00821	<0.00821	<0.00821	<0.00821	<0.00821	<0.00821	<0.00821 J4	<0.00821	<0.0410 C3	<0.0410	<0.0410	0.0108 J	0.00955 J
SB-17	11/2/2023	1.5 - 2.5	<0.00275	<0.00275	<0.00275	<0.00275	<0.00311	<0.00275	<0.00275	<0.00275	<0.0137	<0.0137	<0.0137	<0.00550	<0.00550
SB-17	11/2/2023	4 - 5	<0.00311	<0.00311	<0.00311	<0.00311	<0.00303	<0.00311	<0.00311	<0.00311	<0.0155	<0.0155	<0.0155	<0.00621	<0.00621
SB-17*	11/2/2023	4 - 5	<0.00303	<0.00303	<0.00303	<0.00303	<0.00275	<0.00303	<0.00303	<0.00303	<0.0151	<0.0151	<0.0151	<0.00605	<0.00605
SB-18	11/2/2023	2 - 4	<0.00349	<0.00349	<0.00349	<0.00349	<0.00349	<0.00349	<0.00349	<0.00349	<0.0174	<0.0174	<0.0174	0.00895	0.0226
SB-18	11/2/2023	2 - 4	<0.00330	<0.00330	<0.00330	<0.00330	<0.00305	<0.00330	<0.00330	<0.00330	<0.0165	<0.0165	<0.0165	0.00420 J	0.0363
SB-18	11/2/2023	4 - 5	<0.00315	<0.00315	<0.00315	<0.00315	<0.00315	<0.00315	<0.00315	<0.00315	<0.0158	<0.0158	<0.0158	0.00442 J	0.00505 J
SB-18	11/2/2023	6.5 - 7.5	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.0189	<0.0189	<0.0189	0.0106	0.0335
SB-18	11/2/2023	9.5 - 10.5	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.00378	<0.0189	<0.0189	<0.0189	<0.00757	<0.00757
SB-18A	11/7/2023	2 - 3	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.0161	<0.0161	<0.0161	0.00729	0.0119
SB-18A	11/7/2023	4 - 5	<0.00318	<0.00318	<0.00318	<0.00318	<0.00318	<0.00318	<0.00318	<0.00318	<0.0159	<0.0159	<0.0159	<0.00635	<0.00635
SB-19	11/2/2023	2 - 3	<0.00494	<0.00494	<0.00494	<0.00494	<0.00494	<0.00494	<0.00494	<0.00494	<0.0247	<0.0247	<0.0247	<0.00988	<0.00988
SB-19	11/2/2023	4 - 5	<0.00598	<0.00598	<0.00598 C3	<0.00598	<0.00598	<0.00598	<0.00598	<0.00598	<0.0299	<0.0299	<0.0299	<0.0120	<0.0120

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2-Trichlorotrifluoroethane (Freon 113)	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	870,000	--	26	--	260	29,000	--	--	--	--	--	6,900
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	470,000	--	54	--	3,200	13,000	--	--	--	--	--	2,900
DEQ RBC Leaching to Groundwater (RBCsw)			--	880	--	0.029	--	0.2	32	--	--	--	--	--	48
SB-19	11/2/2023	9.5 - 10.2	<0.0334	<0.0334	<0.0334	<0.0334	<0.0334	<0.0334	<0.0334	<0.0334	<0.167	<0.167 J4	<0.167	<0.0667	<0.0667
SB-19A	11/7/2023	2 - 3	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.0217	<0.0217	<0.0217	<0.00870	<0.00870
SB-19A*	11/7/2023	2 - 3	<0.00445	<0.00445	<0.00445	<0.00445	<0.00445	<0.00445	<0.00445	<0.00445	<0.0223 C3	<0.0223	<0.0223 C3	<0.00890	0.00424 J
SB-19A	11/7/2023	4 - 5	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.00435	<0.0218	<0.0218	<0.0218	<0.00870	<0.00870
SB-20	11/2/2023	2 - 3	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.00397	<0.0199	<0.0199	<0.0199	<0.00795	<0.00795
SB-20	11/2/2023	4 - 5	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.00422	<0.0211	<0.0211	<0.0211	<0.00843	<0.00843
SB-21	11/2/2023	2 - 2.5	<0.00319	<0.00319	<0.00319	<0.00319	<0.00319	<0.00319	<0.00319	<0.00319	<0.0159	<0.0159 J4	<0.0159	0.0733	0.0932
SB-21	11/2/2023	4 - 5	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.0230	<0.0230	<0.0230	0.00356 J	0.00345 J
SB-21	11/3/2023	8 - 9.5	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.00490	<0.0245	<0.0245	0.0639 C5	<0.00981	<0.00981
SB-21	11/3/2023	9.5 - 11.3	<0.00533	<0.00533	<0.00533	<0.00533	<0.00533	<0.00533	<0.00533	<0.00533	<0.0267	<0.0267	<0.0267	<0.0107	0.00900 J
SB-21*	11/3/2023	9.5 - 11.3	<0.00788	<0.00788	<0.00788	<0.00788	<0.00788	<0.00788	<0.00788	<0.00788	<0.0393	<0.0393	<0.0393	<0.0157	0.0535
SB-22	11/2/2023	2 - 3	<0.00305	<0.00305	<0.00305	<0.00305	<0.00330	<0.00305	<0.00305	<0.00305	<0.0152	<0.0152	<0.0152	0.014	0.00371 J
SB-22	11/2/2023	4 - 5	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.00322	<0.0161	<0.0161	<0.0161	<0.00645	<0.00645
SB-22	11/3/2023	6.5 - 9.5	<0.00480	<0.00480	<0.00480	<0.00480	<0.00480	<0.00480	<0.00480	<0.00480	<0.0240	<0.0240	<0.0240	<0.00960	<0.00960
SB-22*	11/3/2023	6.5 - 9.5	<0.00531	<0.00531	<0.00531	<0.00531	<0.00531	<0.00531	<0.00531	<0.00531	<0.0265	<0.0265	<0.0265	<0.0106	<0.0106
SB-22	11/3/2023	11 - 12.5	<0.00537	<0.00537	<0.00537	<0.00537	<0.00537	<0.00537	<0.00537	<0.00537	<0.0269	<0.0269	<0.0269	0.0677	0.1080
SB-23	11/1/2023	2 - 3	<0.00337	<0.00337	<0.00337	<0.00337	<0.00337	<0.00337	<0.00337	<0.00337	<0.0168	<0.0168	<0.0168	0.00368 J	0.00552 J
SB-23	11/1/2023	4 - 5	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393	<0.0197	<0.0197	<0.0197	0.0263	0.0356
SB-23	11/4/2023	6.5 - 8	<0.00476	<0.00476	<0.00476	<0.00476	<0.00476	<0.00476	<0.00476	<0.00476	<0.0238	<0.0238	<0.0238	0.810	<0.00953
SB-23	11/4/2023	11 - 12.5	<0.00551	<0.00551	<0.00551	<0.00551	<0.00551	<0.00551	<0.00551	<0.00551	<0.0276	<0.0276	<0.0276	0.0677	0.0434
SB-23	11/4/2023	17 - 18.5	<0.00592	<0.00592	<0.00592	<0.00592	<0.00592	<0.00592	<0.00592	<0.00592	<0.0296	<0.0296	<0.0296	<0.0118	<0.0118
SB-24	10/31/2023	1.5 - 2	<0.00350	<0.00350	<0.00350	<0.00350	<0.00350	<0.00350	<0.00350	<0.00350	<0.0175	<0.0175	<0.0175	0.00356 J	0.00681 J
SB-24	10/31/2023	4 - 5	<0.00587	<0.00587	<0.00587	<0.00587	<0.00587	<0.00587	<0.00587	<0.00587	<0.0294	<0.0294	<0.0294	0.0672	0.0991
SB-24	10/31/2023	8 - 9.5	<0.00855	<0.00855	<0.00855	<0.00855	<0.00855	<0.00855	<0.00855	<0.00855	<0.0428	<0.0428	<0.0428	0.0114 J	0.0193
SB-24	10/31/2023	11 - 12.5	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0587	<0.0587	<0.0587	<0.0234	<0.0234
SB-24	10/31/2023	15.5 - 17	<0.00686	<0.00686	<0.00686	<0.00686	<0.00686	<0.00686	<0.00686	<0.00686	<0.0343	<0.0343	<0.0343 J3	<0.0137	<0.0137
SB-25	11/7/2023	2 - 3	<0.00479	<0.00479	<0.00479	<0.00479	<0.00479	<0.00479	<0.00479 J4	<0.00479	<0.0240 C3	<0.0240	<0.0240	<0.00957	<0.00957
SB-25	11/7/2023	4 - 5	<0.00513	<0.00513	<0.00513	<0.00513	<0.00513	<0.00513	<0.00513 J4	<0.00513	<0.0256 C3	<0.0256	<0.0256	<0.0103	<0.0103
SB-25	11/7/2023	8 - 8.8	<0.00359	<0.00359	<0.00359	<0.00359	<0.00359	<0.00359	<0.00359	<0.00359	<0.0180 C3	<0.0180	<0.0180 C3	<0.00719	0.00321 J

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2-Trichlorotrifluoroethane (Freon 113)	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	870,000	--	26	--	260	29,000	--	--	--	--	--	6,900
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	470,000	--	54	--	3,200	13,000	--	--	--	--	--	2,900
DEQ RBC Leaching to Groundwater (RBCsw)			--	880	--	0.029	--	0.2	32	--	--	--	--	--	48
SB-25	11/7/2023	11 - 12	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348	<0.0174 C3	<0.0174	<0.0174 C3	<0.00696	<0.00696
SB-26	11/7/2023	2 - 3	<0.00361	<0.00361	<0.00361	<0.00361	<0.00361	<0.00361	<0.00361	<0.00361	<0.0181	<0.0181	<0.0181	<0.00722	<0.00722
SB-26	11/7/2023	4 - 5	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339	<0.0170	<0.0170	<0.0170	<0.00679	<0.00679
SB-26	11/7/2023	8 - 9	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.00644	<0.0322 C3	<0.0322	<0.0322 C3	<0.0129	<0.0129
SB-26	11/7/2023	11 - 12	<0.00329	<0.00329	<0.00329	<0.00329	<0.00329	<0.00329	<0.00329	<0.00329	<0.0165 C3	<0.0165	<0.0165 C3	<0.00658	0.00633 J
SB-27	11/7/2023	2 - 3	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393	<0.00393 J4	<0.00393	<0.0197 C3	<0.0197	<0.0197	<0.00787	<0.00787
SB-27	11/7/2023	4 - 5	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504 J4	<0.00504	<0.0252 C3	<0.0252	<0.0252	<0.0101	<0.0101
SB-27	11/7/2023	8 - 9.1	<0.00637	<0.00637	<0.00637	<0.00637	<0.00637	<0.00637	<0.00637	<0.00637	<0.0318	<0.0318	<0.0318	0.0214	0.0108 J
SB-27	11/7/2023	9.5 - 10.2	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<0.0177	<0.0177	<0.0177	<0.00710	<0.00710
SB-28	11/6/2023	2 - 3	<0.00723	<0.00723	<0.00723	<0.00723	<0.00723	<0.00723	<0.00723 J4	<0.00723	<0.0361 C3	<0.0361	<0.0361	<0.0145	<0.0145
SB-28	11/6/2023	4 - 5	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847 J4	<0.00847	<0.0423 C3	<0.0423	<0.0423	0.00640 J	0.0153 J
SB-28	11/7/2023	12.5 - 13.5	<0.00420	<0.00420	<0.00420	<0.00420	<0.00420	<0.00420	<0.00420 J4	<0.00420	0.0438 C3	<0.0210	<0.0210	<0.00839	<0.00839
SB-28	11/7/2023	18.5 - 19.8	<0.00405	<0.00405	<0.00405	<0.00405	<0.00405	<0.00405	<0.00405 J4	<0.00405	<0.0203 C3	<0.0203	<0.0203	<0.00810	<0.00810
SB-29	11/6/2023	2 - 3	<0.00430	<0.00430	<0.00430	<0.00430	<0.00430	<0.00430	<0.00430 J4	0.00232 J	<0.0215 C3	<0.0215	<0.0215	<0.00859	<0.00859
SB-29	11/6/2023	4 - 5	<0.00360	<0.00360	<0.00360	<0.00360	<0.00360	<0.00360	<0.00360 J4	<0.00360	<0.0180 C3	<0.0180	<0.0180	<0.00721	<0.00721
SB-29	11/7/2023	9.5 - 10.5	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339	<0.00339 J4	<0.00339	<0.0169 C3	<0.0169	<0.0169	0.00294 J	0.0076
SB-29	11/7/2023	11 - 12.5	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348	<0.00348 J4	<0.00348	<0.0174 C3	<0.0174	<0.0174	0.0072	<0.00695
SB-29	11/7/2023	15.5 - 17	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363 J4	<0.00363	<0.0181 C3	<0.0181	<0.0181	0.1960	0.3910
T1-B1	11/1/2023	--	<0.00320	<0.00320	<0.00320	<0.00320	<0.00320	<0.00320	<0.00320	<0.00320	<0.0160	<0.0160	<0.0160	0.00297 J	0.00343 J
T1-B2	11/1/2023	--	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.0170	<0.0170	<0.0170	<0.00679	<0.00679
T2-B1	11/1/2023	--	<0.00336	<0.00336	<0.00336	<0.00336	<0.00336	<0.00336	<0.00336	<0.00336	<0.0168	<0.0168	<0.0168	<0.00671	<0.00671
T2-B2	11/1/2023	--	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.0184	<0.0184	<0.0184	<0.00734	0.00462 J
T2-B3	11/1/2023	--	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.0155 C3	<0.0155	<0.0155 C3	<0.00620	0.00329 J
T3-B1	11/1/2023	--	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.0176	<0.0176	<0.0176	0.00296 J	0.00260 J
T3-B2	11/1/2023	--	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.00352	<0.0176	<0.0176	<0.0176	<0.00704	<0.00704
T3-B3	11/1/2023	--	<0.00305	<0.00305	<0.00305	<0.00305	<0.00305	<0.00305	<0.00305	<0.00305	<0.0153 C3	<0.0153	<0.0153 C3	0.0223	0.0585
T4-B1	11/1/2023	--	<0.00331	<0.00331	<0.00331	<0.00331	<0.00331	<0.00331	<0.00331	<0.00331	<0.0166	<0.0166	<0.0166	<0.00663	<0.00663
T4-B2	11/1/2023	--	<0.0737	<0.0737	<0.0737	<0.0737	<0.0737	<0.0737	<0.0737	<0.0737	<0.369	<0.369	<0.369	0.833	0.86
T4-B3	11/1/2023	--	<0.00371	<0.00371	<0.00371	<0.00371	<0.00371	<0.00371	<0.00371	<0.00371	<0.0186 C3	<0.0186	<0.0186 C3	0.021	0.0916

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	4-Chlorotoluene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	1	36,000	16	--	6,900	--	--	64	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	9	20,000	200	--	2,900	--	--	1,300	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	0.00056	160	0.013	--	53	--	--	0.25	--	--	--	--
MW-26	11/4/2023	2 - 3	<0.0385	<0.00385	<0.00770	<0.00385	<0.00770	<0.00770	<0.00770	<0.00770	<0.00770	<0.00385 C3	<0.154	<0.00385	<0.00770
MW-26	11/4/2023	4 - 5	<0.0553	<0.00553	<0.0111	<0.00553	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.00553 C3	<0.221	<0.00553	<0.0111
MW-26	11/4/2023	6.5 - 8	<0.0422	<0.00422	<0.00844	<0.00422	<0.00844	<0.00844	<0.00844	<0.00844	<0.00844	<0.00422 C3	<0.169	<0.00422	<0.00844
MW-26	11/4/2023	12.5 - 14	<0.0395	<0.00395	<0.00790	<0.00395	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00395 C3	<0.158	<0.00395	<0.00790
MW-26	11/4/2023	15.5 - 17	<0.0490	<0.00490	<0.00980	<0.00490	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	<0.00490 C3	<0.196	<0.00490	<0.00980
MW-27	11/2/2023	2 - 3	<0.0398	<0.00398	<0.00797	<0.00398	<0.00797 J4	<0.00797	<0.00797	<0.00797	<0.00797	0.00886	<0.159	<0.00398	<0.00797
MW-27	11/2/2023	4 - 5	<0.0497	<0.00497	<0.00994	<0.00497	<0.00994 J4	0.0249	<0.00994	<0.00994	<0.00994	<0.00497	<0.199	<0.00497	<0.00994
MW-27	11/4/2023	6.5 - 8	<0.0497	<0.00497	<0.00995	<0.00497	<0.00995	<0.00995	<0.00995	<0.00995	<0.00995	<0.00497 C3	<0.199	<0.00497	<0.00995
MW-27	11/4/2023	11 - 12.5	<0.0843	<0.00843	<0.0168	<0.00843	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.00843 C3	<0.336	<0.00843	<0.0168
MW-27	11/4/2023	15.5 - 17	<0.123	<0.0123	<0.0247	<0.0123	<0.0247	<0.0247	<0.0247	<0.0247	<0.0247	<0.0123 C3	<0.494	<0.0123	<0.0247
MW-28	11/4/2023	2 - 3	<0.0521	<0.00521	<0.0104	<0.00521	<0.0104	0.00729 J	<0.0104	<0.0104	<0.0104	<0.00521 C3	<0.208	<0.00521	<0.0104
MW-28	11/4/2023	4 - 5	<0.0521	<0.00521	<0.0104	<0.00521	<0.0104	<0.0104	<0.0104	<0.0104	<0.0104	<0.00521 C3	<0.208	<0.00521	<0.0104
MW-28	11/4/2023	8 - 9.5	<0.0555	<0.00555	<0.0111	<0.00555	<0.0111	0.00788 J	<0.0111	<0.0111	<0.0111	<0.00555 C3	<0.222	<0.00555	<0.0111
MW-28	11/4/2023	11 - 14	<0.0544	<0.00544	<0.0109	<0.00544	<0.0109	0.00742 J	<0.0109	<0.0109	<0.0109	<0.00544 C3	<0.217	<0.00544	<0.0109
MW-28*	11/4/2023	11 - 14	<0.0891	<0.00891	<0.0178	<0.00891	<0.0178	0.0193	<0.0178	<0.0178	<0.0178	<0.00891 C3	<0.356	<0.00891	<0.0178
MW-28	11/4/2023	17 - 18.5	<0.0583	<0.00583	<0.0116	<0.00583	<0.0116	0.0106 J	<0.0116	<0.0116	<0.0116	<0.00583 C3	<0.233	<0.00583	<0.0116
MW-29	11/1/2023	6.5 - 8	<0.0463	<0.00463	<0.00927	<0.00463	<0.00927	<0.00927	<0.00927	<0.00927	<0.00927	<0.00463	<0.185	<0.00463	<0.00927
MW-29	11/1/2023	11 - 14	<0.0636	<0.00636	<0.0127	<0.00636	<0.0127	0.00558 J	<0.0127	<0.0127	<0.0127	<0.00636	<0.254	<0.00636	<0.0127
MW-29*	11/1/2023	11 - 14	<0.0425	<0.00425	<0.00849	<0.00425	<0.00849	0.00370 J	<0.00849	<0.00849	<0.00849	<0.00425	<0.170	<0.00425	<0.00849
MW-29	11/1/2023	17 - 18.5	<0.0761	<0.00761	<0.0152	<0.00761	<0.0152	<0.0152	<0.0152	<0.0152	<0.0152	<0.00761	<0.304	<0.00761	<0.0152
MW-30	11/1/2023	2 - 3	<0.0384	<0.00384	<0.00768	<0.00384	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00384	<0.154	<0.00384	<0.00768
MW-30*	11/1/2023	2 - 3	<0.0400	<0.00400	<0.00799	<0.00400	<0.00799	<0.00799	<0.00799	<0.00799	<0.00799	<0.00400	<0.160	<0.00400	<0.00799
MW-30	11/1/2023	4 - 5	<0.0355	<0.00355	<0.00710	<0.00355	<0.00710	<0.00710	<0.00710	<0.00710	<0.00710	<0.00355	<0.142	<0.00355	<0.00710
MW-30	11/2/2023	6.5 - 8	<0.0402	<0.00402	<0.00804	<0.00402	<0.00804 J4	<0.00804	<0.00804	<0.00804	<0.00804	<0.00402	<0.161	<0.00402	<0.00804
MW-30	11/2/2023	11 - 14	<0.0591	<0.00591	<0.0118	<0.00591	<0.0118 J4	<0.0118	<0.0118	<0.0118	<0.0118	<0.00591	<0.236	<0.00591	<0.0118
MW-30*	11/2/2023	11 - 14	<0.0823	<0.00823	<0.0164	<0.00823	<0.0164 J4	<0.0164	<0.0164	<0.0164	<0.0164	<0.00823	<0.329	<0.00823	<0.0164
MW-30	11/2/2023	15.5 - 17	<0.0858	<0.00858	<0.0171	<0.00858	<0.0171 J4	<0.0171	<0.0171	<0.0171	<0.0171	<0.00858	<0.343	<0.00858	<0.0171
MW-31	10/31/2023	2 - 2.5	<0.0332	<0.00332	<0.00663	<0.00332	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00332	<0.133	<0.00332	<0.00663
MW-31	10/31/2023	4 - 5	<0.0495	<0.00495	<0.00991	<0.00495	<0.00991	<0.00991	<0.00991	<0.00991	<0.00991	<0.00495	<0.198	<0.00495	<0.00991

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	4-Chlorotoluene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	1	36,000	16	--	6,900	--	--	64	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	9	20,000	200	--	2,900	--	--	1,300	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	0.00056	160	0.013	--	53	--	--	0.25	--	--	--	--
MW-31	10/31/2023	6.5 - 8	<0.0505	<0.00505	<0.0101	<0.00505	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.00505	<0.202	<0.00505	<0.0101
MW-31	10/31/2023	12.5 - 14	<0.0663	<0.00663	<0.0132	<0.00663	<0.0132	<0.0132	<0.0132	<0.0132	<0.0132	<0.00663	<0.265	<0.00663	<0.0132
MW-32	11/6/2023	2 - 3	<0.0451	<0.00451	<0.00900	<0.00451	<0.00900	<0.00900	<0.00900	<0.00900	<0.00900	<0.00451	<0.180	<0.00451	<0.00900
MW-32	11/6/2023	4 - 5	<0.0880	<0.00880	<0.0176	<0.00880	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176	<0.00880	<0.352	<0.00880	<0.0176
MW-32	11/6/2023	7.5 - 9.5	<0.108	<0.0108	<0.0215	<0.0108	<0.0215	<0.0215	<0.0215	<0.0215	<0.0215	<0.0108	<0.430	<0.0108	<0.0215
MW-32	11/6/2023	12.5 - 14	<0.111	<0.0111	<0.0222	<0.0111	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0111	<0.444	<0.0111	<0.0222
MW-32	11/6/2023	16 - 18.5	<0.0418	<0.00418	<0.00836	<0.00418	<0.00836	<0.00836	<0.00836	<0.00836	<0.00836	<0.00418	<0.167	<0.00418	<0.00836
MW-33	11/6/2023	2 - 3	<0.0357	<0.00357	<0.00712	<0.00357	<0.00712	<0.00712	<0.00712	<0.00712	<0.00712	<0.00357	<0.142	<0.00357	<0.00712
MW-33	11/6/2023	4 - 5	<0.0420	<0.00420	<0.00840	<0.00420	<0.00840	<0.00840	<0.00840	<0.00840	<0.00840	<0.00420	<0.168	<0.00420	<0.00840
MW-33	11/6/2023	6.5 - 8	<0.0402	<0.00402	<0.00804	<0.00402	<0.00804	0.00907	<0.00804	<0.00804	<0.00804	<0.00402	<0.161	<0.00402	<0.00804
MW-33	11/6/2023	12.5 - 14	<0.0474	<0.00474	<0.00949	<0.00474	<0.00949	0.00499 J	<0.00949	<0.00949	<0.00949	<0.00474	<0.190	<0.00474	<0.00949
MW-33	11/6/2023	15.5 - 17	<0.0406	<0.00406	<0.00811	<0.00406	<0.00811	<0.00811	<0.00811	<0.00811	<0.00811	<0.00406	<0.162	<0.00406	<0.00811
MW-34	11/6/2023	2 - 3	<0.0389	<0.00389	<0.00778	<0.00389	<0.00778	<0.00778	<0.00778	<0.00778	<0.00778	<0.00389 C3	<0.156	<0.00389	<0.00778
MW-34	11/6/2023	4 - 5	<0.0351	<0.00351	<0.00701	<0.00351	<0.00701	<0.00701	<0.00701	<0.00701	<0.00701	<0.00351 C3	<0.140	<0.00351	<0.00701
MW-34	11/6/2023	8 - 9	<0.0396	<0.00396	<0.00791	<0.00396	<0.00791	0.0141	<0.00791	<0.00791	<0.00791	<0.00396 C3	<0.158	<0.00396	<0.00791
MW-34	11/6/2023	12.5 - 14	<0.142	<0.0142	<0.0283	**<0.0142**	<0.0283	0.0150 J	<0.0283	<0.0283	<0.0283	<0.0142	<0.567	<0.0142	<0.0283
MW-34	11/6/2023	17 - 18.5	<0.0821	<0.00821	<0.0164	<0.00821	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164	<0.00821	<0.328	<0.00821	<0.0164
SB-17	11/2/2023	1.5 - 2.5	<0.0275	<0.00275	<0.00550	<0.00275	<0.00550	<0.00550	<0.00550	<0.00550	<0.00550	<0.00275	<0.110	<0.00275	<0.00550
SB-17	11/2/2023	4 - 5	<0.0311	<0.00311	<0.00621	<0.00311	<0.00621 J4	<0.00621	<0.00621	<0.00621	<0.00621	<0.00311	<0.124	<0.00311 J3	<0.00621
SB-17*	11/2/2023	4 - 5	<0.0303	<0.00303	<0.00605	<0.00303	<0.00605 J4	<0.00605	<0.00605	<0.00605	<0.00605	<0.00303	<0.121	<0.00303 J3	<0.00605
SB-18	11/2/2023	2 - 4	<0.0349	<0.00349	<0.00697	<0.00349	<0.00697 J4	0.00628 J	<0.00697	<0.00697	<0.00697	<0.00349	<0.139	<0.00349	<0.00697
SB-18	11/2/2023	2 - 4	<0.0330	<0.00330	<0.00660	<0.00330	<0.00660 J4	0.00683	<0.00660	<0.00660	<0.00660	<0.00330	<0.132	<0.00330	<0.00660
SB-18	11/2/2023	4 - 5	<0.0315	<0.00315	<0.00631	<0.00315	<0.00631 J4	<0.00631	<0.00631	<0.00631	<0.00631	<0.00315	<0.126	<0.00315	<0.00631
SB-18	11/2/2023	6.5 - 7.5	<0.0378	<0.00378	<0.00755	<0.00378	<0.00755 J4	0.00621 J	<0.00755	<0.00755	<0.00755	<0.00378	<0.151	<0.00378 J3	<0.00755
SB-18	11/2/2023	9.5 - 10.5	<0.0378	<0.00378	<0.00757	<0.00378	<0.00757 J4	<0.00757	<0.00757	<0.00757	<0.00757	<0.00378	0.409	<0.00378 J3	<0.00757
SB-18A	11/7/2023	2 - 3	<0.0322	<0.00322	<0.00645	<0.00322	<0.00645	<0.00645	<0.00645	<0.00645	<0.00645	<0.00322	<0.129	<0.00322	<0.00645
SB-18A	11/7/2023	4 - 5	<0.0318	<0.00318	<0.00635	<0.00318	<0.00635	<0.00635	<0.00635	<0.00635	<0.00635	<0.00318	<0.127	<0.00318	<0.00635
SB-19	11/2/2023	2 - 3	<0.0494	<0.00494	<0.00988	<0.00494	<0.00988 J4	<0.00988	<0.00988	<0.00988	<0.00988	<0.00494	<0.198	<0.00494 J3	<0.00988
SB-19	11/2/2023	4 - 5	<0.0598 C3	<0.00598	<0.0120	<0.00598	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.00598	<0.239	<0.00598	<0.0120

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	4-Chlorotoluene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	1	36,000	16	--	6,900	--	--	64	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	9	20,000	200	--	2,900	--	--	1,300	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	0.00056	160	0.013	--	53	--	--	0.25	--	--	--	--
SB-19	11/2/2023	9.5 - 10.2	<0.334	<0.0334	<0.0667	**<0.0334**	<0.0667	<0.0667	<0.0667 J4	<0.0667	<0.0667 J4	<0.0334	<1.33	<0.0334 J4	<0.0667 J4
SB-19A	11/7/2023	2 - 3	<0.0435	<0.00435	<0.00870	<0.00435	<0.00870	<0.00870	<0.00870	<0.00870	<0.00870	<0.00435	<0.174	<0.00435	<0.00870
SB-19A*	11/7/2023	2 - 3	<0.0445 C3	<0.00445	<0.00890	<0.00445	<0.00890	<0.00890	<0.00890	<0.00890	<0.00890	<0.00445	<0.178	<0.00445	<0.00890
SB-19A	11/7/2023	4 - 5	<0.0435	<0.00435	<0.00870	<0.00435	<0.00870	<0.00870	<0.00870	<0.00870	<0.00870	<0.00435	<0.174	<0.00435	<0.00870
SB-20	11/2/2023	2 - 3	<0.0397	<0.00397	<0.00795	<0.00397	<0.00795 J4	<0.00795	<0.00795	<0.00795	<0.00795	<0.00397	<0.159	<0.00397	<0.00795
SB-20	11/2/2023	4 - 5	<0.0422	<0.00422	<0.00843	<0.00422	<0.00843 J4	<0.00843	<0.00843	<0.00843	<0.00843	<0.00422	<0.169	<0.00422	<0.00843
SB-21	11/2/2023	2 - 2.5	<0.0319	<0.00319	<0.00638	<0.00319	<0.00638	0.0263	<0.00638 J4	<0.00638	<0.00638 J4	<0.00319	<0.128	<0.00319 J4	<0.00638 J4
SB-21	11/2/2023	4 - 5	<0.0461	<0.00461	<0.00921	<0.00461	<0.00921 J4	<0.00921	<0.00921	<0.00921	<0.00921	<0.00461	<0.184	<0.00461	<0.00921
SB-21	11/3/2023	8 - 9.5	<0.0490	<0.00490	<0.00981	<0.00490	<0.00981 J4	<0.00981	<0.00981	<0.00981	<0.00981	<0.00490	0.708	<0.00490	<0.00981
SB-21	11/3/2023	9.5 - 11.3	<0.0533	<0.00533	<0.0107	<0.00533	<0.0107 J4	<0.0107	<0.0107	<0.0107	<0.0107	<0.00533	<0.213	<0.00533	<0.0107
SB-21*	11/3/2023	9.5 - 11.3	<0.0788	<0.00788	<0.0157	<0.00788	<0.0157 J4	<0.0157	<0.0157	<0.0157	<0.0157	<0.00788	3.42	<0.00788	<0.0157
SB-22	11/2/2023	2 - 3	<0.0305	<0.00305	<0.00610	<0.00305	<0.00610 J4	<0.00610	<0.00610	<0.00610	<0.00610	<0.00305	<0.122	<0.00305 J3	<0.00610
SB-22	11/2/2023	4 - 5	<0.0322	<0.00322	<0.00645	<0.00322	<0.00645 J4	<0.00645	<0.00645	<0.00645	<0.00645	<0.00322	<0.129	<0.00322	<0.00645
SB-22	11/3/2023	6.5 - 9.5	<0.0480	<0.00480	<0.00960	<0.00480	<0.00960 J4	<0.00960	<0.00960	<0.00960	<0.00960	<0.00480	<0.192	<0.00480	<0.00960
SB-22*	11/3/2023	6.5 - 9.5	<0.0531	<0.00531	<0.0106	<0.00531	<0.0106 J4	<0.0106	<0.0106	<0.0106	<0.0106	<0.00531	<0.212	<0.00531	<0.0106
SB-22	11/3/2023	11 - 12.5	<0.0537	<0.00537	<0.0107	<0.00537	<0.0107 J4	0.0181	<0.0107	<0.0107	<0.0107	<0.00537	0.314	<0.00537	<0.0107
SB-23	11/1/2023	2 - 3	<0.0337	<0.00337	<0.00673	<0.00337	<0.00673	<0.00673	<0.00673	<0.00673	<0.00673	<0.00337	<0.135	<0.00337	<0.00673
SB-23	11/1/2023	4 - 5	<0.0393	<0.00393	<0.00787	<0.00393	<0.00787	0.00681 J	<0.00787	<0.00787	<0.00787	<0.00393	<0.157	<0.00393	<0.00787
SB-23	11/4/2023	6.5 - 8	<0.0476	<0.00476	<0.00953	<0.00476	<0.00953	<0.00953	<0.00953	<0.00953	<0.00953	<0.00476 C3	<0.191	<0.00476	<0.00953
SB-23	11/4/2023	11 - 12.5	<0.0551	<0.00551	<0.0110	**0.0258**	<0.0110	0.0119	<0.0110	<0.0110	<0.0110	<0.00551 C3	<0.221	<0.00551	<0.0110
SB-23	11/4/2023	17 - 18.5	<0.0592	<0.00592	<0.0118	<0.00592	<0.0118	<0.0118	<0.0118	<0.0118	<0.0118	<0.00592 C3	<0.237	<0.00592	<0.0118
SB-24	10/31/2023	1.5 - 2	<0.0350	<0.00350	<0.00701	<0.00350	<0.00701	<0.00701	<0.00701	<0.00701	<0.00701	<0.00350	<0.140	<0.00350	<0.00701
SB-24	10/31/2023	4 - 5	<0.0587	<0.00587	<0.0117	<0.00587	<0.0117	0.0218	<0.0117	<0.0117	<0.0117	<0.00587	<0.235	<0.00587	<0.0117
SB-24	10/31/2023	8 - 9.5	<0.0855	<0.00855	<0.0171	<0.00855	<0.0171	0.00954 J	<0.0171	<0.0171	<0.0171	<0.00855	<0.342	<0.00855	<0.0171
SB-24	10/31/2023	11 - 12.5	<0.117	<0.0117	<0.0234	<0.0117	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0117	<0.469	<0.0117	<0.0234
SB-24	10/31/2023	15.5 - 17	<0.0686	<0.00686	<0.0137	<0.00686	<0.0137	<0.0137	<0.0137	<0.0137	<0.0137	<0.00686	<0.274	<0.00686	<0.0137
SB-25	11/7/2023	2 - 3	<0.0479	<0.00479	<0.00957	<0.00479	<0.00957	<0.00957	<0.00957	<0.00957	<0.00957	<0.00479	<0.191	<0.00479	<0.00957
SB-25	11/7/2023	4 - 5	<0.0513	<0.00513	<0.0103	<0.00513	<0.0103	<0.0103	<0.0103	<0.0103	<0.0103	<0.00513	<0.205	<0.00513	<0.0103
SB-25	11/7/2023	8 - 8.8	<0.0359 C3	<0.00359	<0.00719	<0.00359	<0.00719	<0.00719	<0.00719	<0.00719	<0.00719	<0.00359	<0.144	<0.00359	<0.00719

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	4-Chlorotoluene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	1	36,000	16	--	6,900	--	--	64	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	9	20,000	200	--	2,900	--	--	1,300	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	0.00056	160	0.013	--	53	--	--	0.25	--	--	--	--
SB-25	11/7/2023	11 - 12	<0.0348 C3	<0.00348	<0.00696	<0.00348	<0.00696	<0.00696	<0.00696	<0.00696	0.0157	<0.00348	<0.139	<0.00348	<0.00696
SB-26	11/7/2023	2 - 3	<0.0361	<0.00361	<0.00722	<0.00361	<0.00722	<0.00722	<0.00722	<0.00722	<0.00722	<0.00361	<0.144	<0.00361	<0.00722
SB-26	11/7/2023	4 - 5	<0.0339	<0.00339	<0.00679	<0.00339	<0.00679	<0.00679	<0.00679	<0.00679	<0.00679	<0.00339	<0.136	<0.00339	<0.00679
SB-26	11/7/2023	8 - 9	<0.0644 C3	<0.00644	<0.0129	<0.00644	<0.0129	<0.0129	<0.0129	<0.0129	<0.0129	<0.00644	<0.257	<0.00644	<0.0129
SB-26	11/7/2023	11 - 12	<0.0329 C3	<0.00329	<0.00658	<0.00329	<0.00658	<0.00658	<0.00658	<0.00658	<0.00658	<0.00329	<0.132	<0.00329	<0.00658
SB-27	11/7/2023	2 - 3	<0.0393	<0.00393	<0.00787	<0.00393	<0.00787	<0.00787	<0.00787	<0.00787	<0.00787	<0.00393	<0.157	<0.00393	<0.00787
SB-27	11/7/2023	4 - 5	<0.0504	<0.00504	<0.0101	<0.00504	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.00504	<0.202	<0.00504	<0.0101
SB-27	11/7/2023	8 - 9.1	<0.0637	<0.00637	<0.0127	<0.00637	<0.0127	<0.0127	<0.0127	<0.0127	<0.0127	<0.00637	<0.255	<0.00637	<0.0127
SB-27	11/7/2023	9.5 - 10.2	<0.0355	<0.00355	<0.00710	<0.00355	<0.00710	<0.00710	<0.00710	<0.00710	<0.00710	<0.00355	<0.142	<0.00355	<0.00710
SB-28	11/6/2023	2 - 3	<0.0723	<0.00723	<0.0145	<0.00723	<0.0145	<0.0145	<0.0145	<0.0145	<0.0145	<0.00723	<0.289	<0.00723	<0.0145
SB-28	11/6/2023	4 - 5	<0.0847	<0.00847	<0.0169	<0.00847	<0.0169	<0.0169	<0.0169	<0.0169	<0.0169	<0.00847	<0.339	<0.00847	<0.0169
SB-28	11/7/2023	12.5 - 13.5	<0.0420	<0.00420	<0.00839	<0.00420	<0.00839	<0.00839	<0.00839	<0.00839	<0.00839	<0.00420	<0.168	<0.00420	<0.00839
SB-28	11/7/2023	18.5 - 19.8	<0.0405	<0.00405	<0.00810	<0.00405	<0.00810	<0.00810	<0.00810	<0.00810	<0.00810	<0.00405	<0.162	<0.00405	<0.00810
SB-29	11/6/2023	2 - 3	<0.0430	<0.00430	<0.00859	<0.00430	<0.00859	<0.00859	<0.00859	<0.00859	<0.00859	<0.00430	<0.172	<0.00430	<0.00859
SB-29	11/6/2023	4 - 5	<0.0360	<0.00360	<0.00721	<0.00360	<0.00721	<0.00721	<0.00721	<0.00721	<0.00721	<0.00360	<0.144	<0.00360	<0.00721
SB-29	11/7/2023	9.5 - 10.5	<0.0339	<0.00339	<0.00678	<0.00339	<0.00678	<0.00678	<0.00678	<0.00678	<0.00678	<0.00339	<0.136	<0.00339	<0.00678
SB-29	11/7/2023	11 - 12.5	<0.0348	<0.00348	<0.00695	<0.00348	<0.00695	<0.00695	<0.00695	<0.00695	<0.00695	<0.00348	<0.139	<0.00348	<0.00695
SB-29	11/7/2023	15.5 - 17	<0.0363	<0.00363	<0.00726	<0.00363	<0.00726	0.06	<0.00726	<0.00726	<0.00726	<0.00363	<0.145	<0.00363	<0.00726
T1-B1	11/1/2023	--	<0.0320	<0.00320	<0.00640	<0.00320	<0.00640	<0.00640	<0.00640	<0.00640	<0.00640	<0.00320	<0.128	<0.00320	<0.00640
T1-B2	11/1/2023	--	<0.0340	<0.00340	<0.00679	<0.00340	<0.00679	<0.00679	<0.00679	<0.00679	<0.00679	<0.00340	<0.136	<0.00340	<0.00679
T2-B1	11/1/2023	--	<0.0336	<0.00336	<0.00671	<0.00336	<0.00671	<0.00671	<0.00671	<0.00671	<0.00671	<0.00336	<0.134	<0.00336	<0.00671
T2-B2	11/1/2023	--	<0.0367	<0.00367	<0.00734	<0.00367	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	<0.00367	<0.147	<0.00367	<0.00734
T2-B3	11/1/2023	--	<0.0310 C3	<0.00310	<0.00620	<0.00310	<0.00620	<0.00620	<0.00620	<0.00620	<0.00620	<0.00310	<0.124	<0.00310	<0.00620
T3-B1	11/1/2023	--	<0.0352	<0.00352	<0.00703	<0.00352	<0.00703	<0.00703	<0.00703	<0.00703	<0.00703	<0.00352	<0.141	<0.00352	<0.00703
T3-B2	11/1/2023	--	<0.0352	<0.00352	<0.00704	<0.00352	<0.00704	<0.00704	<0.00704	<0.00704	<0.00704	<0.00352	<0.141	<0.00352	<0.00704
T3-B3	11/1/2023	--	<0.0305 C3	<0.00305	<0.00610	<0.00305	<0.00610	<0.00610	<0.00610	<0.00610	<0.00610	<0.00305	<0.122	<0.00305	<0.00610
T4-B1	11/1/2023	--	<0.0331	<0.00331	<0.00663	<0.00331	<0.00663	<0.00663	<0.00663	<0.00663	<0.00663	<0.00331	<0.133	<0.00331	<0.00663
T4-B2	11/1/2023	--	<0.737	<0.0737	<0.147	**<0.0737**	<0.147	0.214	<0.147	<0.147	<0.147	<0.0737	<2.95	<0.0737	<0.147
T4-B3	11/1/2023	--	<0.0371 C3	<0.00371	<0.00742	<0.00371	<0.00742	0.0184	<0.00742	<0.00742	0.00110 J	<0.00371	<0.148	<0.00371	<0.00742

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	4-Methyl-2-pentanone	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	70,000	37	--	15	260	750	34	8,700	--	26	25,000
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	21,000	380	--	230	2,700	370	320	4,700	--	410	25,000
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	0.1	--	0.0088	0.22	0.4	0.058	27	1,300	0.015	9.1
MW-26	11/4/2023	2 - 3	<0.0385	<0.0770	<0.0192	<0.00154	<0.0192	<0.00385	<0.0385	<0.0192	<0.00770	<0.00385	<0.00770	<0.00385	<0.0192
MW-26	11/4/2023	4 - 5	<0.0553	0.0952 J	<0.0277	<0.00221	<0.0277	<0.00553	<0.0553	<0.0277	<0.0111	<0.00553	<0.0111	<0.00553	<0.0277
MW-26	11/4/2023	6.5 - 8	<0.0422	<0.0844	<0.0211	<0.00169	<0.0211	<0.00422	<0.0422	<0.0211	<0.00844	<0.00422	<0.00844	<0.00422	<0.0211
MW-26	11/4/2023	12.5 - 14	<0.0395	<0.0790	<0.0198	<0.00158	<0.0198	<0.00395	<0.0395	<0.0198	<0.00790	<0.00395	<0.00790	<0.00395	<0.0198
MW-26	11/4/2023	15.5 - 17	<0.0490	0.114	<0.0245	0.00109 J	<0.0245	<0.00490	<0.0490	<0.0245	<0.00980	<0.00490	<0.00980	<0.00490	<0.0245
MW-27	11/2/2023	2 - 3	<0.0398	<0.0797	<0.0199	0.00112 J	<0.0199	<0.00398	<0.0398	<0.0199	<0.00797	<0.00398	<0.00797	<0.00398	<0.0199
MW-27	11/2/2023	4 - 5	<0.0497	<0.0994	<0.0249	**0.392**	<0.0249	<0.00497	<0.0497	<0.0249	<0.00994	<0.00497	<0.00994	<0.00497	<0.0249
MW-27	11/4/2023	6.5 - 8	<0.0497	<0.0995	<0.0249	0.0119	<0.0249	<0.00497	<0.0497	<0.0249	<0.00995	<0.00497	<0.00995	<0.00497	<0.0249
MW-27	11/4/2023	11 - 12.5	<0.0843	0.361	<0.0421	0.00767	<0.0421	<0.00843	<0.0843	<0.0421	<0.0168	<0.00843	<0.0168	<0.00843	<0.0421
MW-27	11/4/2023	15.5 - 17	<0.123	0.57	<0.0619	0.0798	<0.0619	**<0.0123**	<0.123	<0.0619	<0.0247	<0.0123	<0.0247	<0.0123	<0.0619
MW-28	11/4/2023	2 - 3	<0.0521	<0.104	<0.0260	0.0837	<0.0260	<0.00521	<0.0521	<0.0260	<0.0104	<0.00521	<0.0104	<0.00521	<0.0260
MW-28	11/4/2023	4 - 5	<0.0521	<0.104	<0.0260	0.00139 J	<0.0260	<0.00521	<0.0521	<0.0260	<0.0104	<0.00521	<0.0104	<0.00521	<0.0260
MW-28	11/4/2023	8 - 9.5	<0.0555	0.122	<0.0277	0.0127	<0.0277	<0.00555	<0.0555	<0.0277	<0.0111	<0.00555	<0.0111	<0.00555	<0.0277
MW-28	11/4/2023	11 - 14	<0.0544	0.0900 J	<0.0272	0.00613	<0.0272	<0.00544	<0.0544	<0.0272	<0.0109	<0.00544	<0.0109	<0.00544	<0.0272
MW-28*	11/4/2023	11 - 14	<0.0891	0.198	<0.0445	0.0186	<0.0445	**<0.00891**	<0.0891	<0.0445	<0.0178	<0.00891	<0.0178	<0.00891	<0.0445
MW-28	11/4/2023	17 - 18.5	<0.0583	0.146	<0.0291	<0.00233	<0.0291	<0.00583	<0.0583	<0.0291	<0.0116	<0.00583	<0.0116	<0.00583	<0.0291
MW-29	11/1/2023	6.5 - 8	0.135	<0.0927 C3	<0.0232	0.0128	<0.0232	<0.00463	<0.0463	<0.0232	<0.00927	<0.00463	<0.00927	<0.00463	<0.0232
MW-29	11/1/2023	11 - 14	0.165	0.167 C3	<0.0317	0.0397	<0.0317	<0.00636	<0.0636	<0.0317	<0.0127	<0.00636	<0.0127	<0.00636	<0.0317
MW-29*	11/1/2023	11 - 14	0.0749	0.157 C3	<0.0213	0.0249	<0.0213	<0.00425	<0.0425	<0.0213	<0.00849	<0.00425	<0.00849	<0.00425	<0.0213
MW-29	11/1/2023	17 - 18.5	<0.0761	<0.152 C3	<0.0380	0.00356	<0.0380	<0.00761	<0.0761	<0.0380	<0.0152	<0.00761	<0.0152	<0.00761	<0.0380
MW-30	11/1/2023	2 - 3	<0.0384	<0.0768 C3	<0.0192	0.00152 J	<0.0192	<0.00384	<0.0384	<0.0192	<0.00768	<0.00384	<0.00768	<0.00384	<0.0192
MW-30*	11/1/2023	2 - 3	<0.0400	<0.0799 C3	<0.0200	0.0031	<0.0200	<0.00400	<0.0400	<0.0200	<0.00799	<0.00400	<0.00799	<0.00400	<0.0200
MW-30	11/1/2023	4 - 5	<0.0355	<0.0710 C3	<0.0177	<0.00142	<0.0177	<0.00355	<0.0355	<0.0177	<0.00710	<0.00355	<0.00710	<0.00355	<0.0177
MW-30	11/2/2023	6.5 - 8	<0.0402	<0.0804	<0.0201	<0.00161	<0.0201	<0.00402	<0.0402	<0.0201	<0.00804	<0.00402	<0.00804	<0.00402	<0.0201
MW-30	11/2/2023	11 - 14	<0.0591	0.137	<0.0295	0.0075	<0.0295	<0.00591	<0.0591	<0.0295	<0.0118	<0.00591	<0.0118	<0.00591	<0.0295
MW-30*	11/2/2023	11 - 14	<0.0823	0.21	<0.0412	0.0222	<0.0412	<0.00823	<0.0823	<0.0412	<0.0164	<0.00823	<0.0164	<0.00823	<0.0412
MW-30	11/2/2023	15.5 - 17	<0.0858	0.244	<0.0429	0.00539	<0.0429	<0.00858	<0.0858	<0.0429	<0.0171	<0.00858	<0.0171	<0.00858	<0.0429
MW-31	10/31/2023	2 - 2.5	<0.0332	<0.0663 C3 J3	<0.0166	0.00311	<0.0166	<0.00332	<0.0332	<0.0166	<0.00663	<0.00332	<0.00663	<0.00332	<0.0166
MW-31	10/31/2023	4 - 5	<0.0495	0.341	<0.0248	0.00120 J	<0.0248	<0.00495	<0.0495	<0.0248 J3	<0.00991	<0.00495	<0.00991 J3	<0.00495	<0.0248 C3

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	4-Methyl-2-pentanone	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	70,000	37	--	15	260	750	34	8,700	--	26	25,000
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	21,000	380	--	230	2,700	370	320	4,700	--	410	25,000
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	0.1	--	0.0088	0.22	0.4	0.058	27	1,300	0.015	9.1
MW-31	10/31/2023	6.5 - 8	<0.0505	0.252	<0.0252	0.00126 J	<0.0252	<0.00505	<0.0505	<0.0252 J3	<0.0101	<0.00505	<0.0101 J3	<0.00505	<0.0252 C3
MW-31	10/31/2023	12.5 - 14	<0.0663	0.368	<0.0332	<0.00265	<0.0332	<0.00663	<0.0663	<0.0332 J3	<0.0132	<0.00663	<0.0132 J3	<0.00663	<0.0332 C3
MW-32	11/6/2023	2 - 3	<0.0451	<0.0900	<0.0225	<0.00180	<0.0225	<0.00451	<0.0451	<0.0225	<0.00900	<0.00451	<0.00900	<0.00451	<0.0225
MW-32	11/6/2023	4 - 5	<0.0880	<0.176	<0.0440	0.00247 J	<0.0440	<0.00880	<0.0880	<0.0440	<0.0176	<0.00880	<0.0176	<0.00880	<0.0440
MW-32	11/6/2023	7.5 - 9.5	<0.108	<0.215	<0.0538	<0.00430	<0.0538	**<0.0108**	<0.108	<0.0538	<0.0215	<0.0108	<0.0215	<0.0108	<0.0538
MW-32	11/6/2023	12.5 - 14	<0.111	<0.222	<0.0556	<0.00444	<0.0556	**<0.0111**	<0.111	<0.0556	<0.0222	<0.0111	<0.0222	<0.0111	<0.0556
MW-32	11/6/2023	16 - 18.5	<0.0418	<0.0836	<0.0209	<0.00167	<0.0209	<0.00418	<0.0418	<0.0209	<0.00836	<0.00418	<0.00836	<0.00418	<0.0209
MW-33	11/6/2023	2 - 3	<0.0357	<0.0712 C3	<0.0178	<0.00142	<0.0178	<0.00357	<0.0357	<0.0178	<0.00712	<0.00357	<0.00712	<0.00357	<0.0178
MW-33	11/6/2023	4 - 5	<0.0420	<0.0840 C3	<0.0211	<0.00168	<0.0211	<0.00420	<0.0420	<0.0211	<0.00840	<0.00420	<0.00840	<0.00420	<0.0211
MW-33	11/6/2023	6.5 - 8	<0.0402	<0.0804 C3	<0.0201	0.00248	<0.0201	<0.00402	<0.0402	<0.0201	<0.00804	<0.00402	<0.00804	<0.00402	<0.0201
MW-33	11/6/2023	12.5 - 14	<0.0474	0.122 C3	<0.0237	0.00235	<0.0237	<0.00474	<0.0474	<0.0237	<0.00949	<0.00474	<0.00949	<0.00474	<0.0237
MW-33	11/6/2023	15.5 - 17	<0.0406	0.180 C3	<0.0203	0.00185	<0.0203	<0.00406	<0.0406	<0.0203	<0.00811	<0.00406	<0.00811	<0.00406	<0.0203
MW-34	11/6/2023	2 - 3	<0.0389	<0.0778	<0.0195	<0.00156	<0.0195	<0.00389	<0.0389	<0.0195	<0.00778	<0.00389	<0.00778	<0.00389	<0.0195
MW-34	11/6/2023	4 - 5	<0.0351	<0.0701	<0.0175	<0.00140	<0.0175	<0.00351	<0.0351	<0.0175	<0.00701	<0.00351	<0.00701	<0.00351	<0.0175
MW-34	11/6/2023	8 - 9	<0.0396	<0.0791	<0.0198	0.00565	<0.0198	<0.00396	<0.0396	<0.0198	<0.00791	<0.00396	<0.00791	<0.00396	<0.0198
MW-34	11/6/2023	12.5 - 14	<0.142	0.236 J	<0.0708	0.0122	<0.0708	**<0.0142**	<0.142	<0.0708	<0.0283	<0.0142	<0.0283	<0.0142	<0.0708
MW-34	11/6/2023	17 - 18.5	<0.0821	<0.164	<0.0410	0.00207 J	<0.0410	<0.00821	<0.0821	<0.0410	<0.0164	<0.00821	<0.0164	<0.00821	<0.0410
SB-17	11/2/2023	1.5 - 2.5	<0.0275	<0.0550 C3	<0.0137	<0.00110	<0.0137	<0.00275	<0.0275	<0.0137	<0.00550	<0.00275	<0.00550	<0.00275	<0.0137
SB-17	11/2/2023	4 - 5	<0.0311	<0.0621	<0.0155 J4	<0.00124	<0.0155	<0.00311 J4	<0.0311	<0.0155	<0.00621	<0.00311	<0.00621	<0.00311	<0.0155
SB-17*	11/2/2023	4 - 5	<0.0303	<0.0605	<0.0151 J4	<0.00121	<0.0151	<0.00303 J4	<0.0303	<0.0151	<0.00605	<0.00303	<0.00605	<0.00303	<0.0151
SB-18	11/2/2023	2 - 4	<0.0349	<0.0697	<0.0174	0.00533	<0.0174	<0.00349	<0.0349	<0.0174	<0.00697	<0.00349	<0.00697	<0.00349	<0.0174
SB-18	11/2/2023	2 - 4	<0.0330	<0.0660	<0.0152 J4	0.00578	<0.0165	<0.00330	<0.0330	<0.0165	<0.00660	<0.00330	<0.00660	<0.00330	<0.0165
SB-18	11/2/2023	4 - 5	<0.0315	<0.0631	<0.0158	0.00153	<0.0158	<0.00315	<0.0315	<0.0158	<0.00631	<0.00315	<0.00631	<0.00315	<0.0158
SB-18	11/2/2023	6.5 - 7.5	0.0195 J	<0.0755	<0.0189 J4	0.00542	<0.0189	<0.00378 J4	<0.0378	<0.0189	<0.00755	<0.00378	<0.00755	<0.00378	<0.0189
SB-18	11/2/2023	9.5 - 10.5	2.26 C5	<0.0757	<0.0189 J4	<0.00151	<0.0189	<0.00378 J4	<0.0378	<0.0189	<0.00757	<0.00378	<0.00757	<0.00378	<0.0189
SB-18A	11/7/2023	2 - 3	<0.0322	<0.0645 C3	<0.0161	0.00239	<0.0161	<0.00322	<0.0322	<0.0161	<0.00645	<0.00322	<0.00645	<0.00322	<0.0161
SB-18A	11/7/2023	4 - 5	<0.0318	<0.0635 C3	<0.0159	<0.00127	<0.0159	<0.00318	<0.0318	<0.0159	<0.00635	<0.00318	<0.00635	<0.00318	<0.0159
SB-19	11/2/2023	2 - 3	<0.0494	<0.0988	<0.0247 J4	0.00182 J	<0.0247	<0.00494 J4	<0.0494	<0.0247	<0.00988	<0.00494	<0.00988	<0.00494	<0.0247
SB-19	11/2/2023	4 - 5	<0.0598	<0.120 J4	<0.0299	<0.00239	<0.0299	<0.00598	<0.0598	<0.0299	<0.0120	<0.00598	<0.0120 C3	<0.00598	<0.0299 C3

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	4-Methyl-2-pentanone	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	70,000	37	--	15	260	750	34	8,700	--	26	25,000
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	21,000	380	--	230	2,700	370	320	4,700	--	410	25,000
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	0.1	--	0.0088	0.22	0.4	0.058	27	1,300	0.015	9.1
SB-19	11/2/2023	9.5 - 10.2	<0.334	<0.667 C3	<0.167	<0.0133	<0.167 J4	**<0.0334**	**<0.334**	<0.167	**<0.0667**	<0.0334	<0.0667	**<0.0334**	<0.167
SB-19A	11/7/2023	2 - 3	0.0337 J	<0.0870 C3	<0.0217	<0.00174	<0.0217	<0.00435	<0.0435	<0.0217	<0.00870	<0.00435	<0.00870	<0.00435	<0.0217
SB-19A*	11/7/2023	2 - 3	<0.0445	<0.0890 C3	<0.0223	<0.00178	<0.0223	<0.00445	<0.0445	<0.0223	<0.00890	<0.00445	<0.00890	<0.00445	<0.0223
SB-19A	11/7/2023	4 - 5	<0.0435	<0.0870 C3	<0.0218	<0.00174	<0.0218	<0.00435	<0.0435	<0.0218	<0.00870	<0.00435	<0.00870	<0.00435	<0.0218
SB-20	11/2/2023	2 - 3	<0.0397	<0.0795	<0.0199	<0.00159	<0.0199	<0.00397	<0.0397	<0.0199	<0.00795	<0.00397	<0.00795	<0.00397	<0.0199
SB-20	11/2/2023	4 - 5	<0.0422	<0.0843	<0.0211	<0.00169	<0.0211	<0.00422	<0.0422	<0.0211	<0.00843	<0.00422	<0.00843	<0.00422	<0.0211
SB-21	11/2/2023	2 - 2.5	<0.0319	<0.0638 C3	<0.0159	0.0455	<0.0159 J4	<0.00319	<0.0319	<0.0159	<0.00638	<0.00319	<0.00638	0.00194 J	<0.0159
SB-21	11/2/2023	4 - 5	<0.0461	<0.0921	<0.0230	0.000940 J	<0.0230	<0.00461	<0.0461	<0.0230	<0.00921	<0.00461	<0.00921	<0.00461	<0.0230
SB-21	11/3/2023	8 - 9.5	<0.0490	<0.0981	<0.0245	0.00549	<0.0245	<0.00490	<0.0490	<0.0245	<0.00981	<0.00490	<0.00981	<0.00490	<0.0245
SB-21	11/3/2023	9.5 - 11.3	<0.0533	<0.107	<0.0267	0.064	<0.0267	<0.00533	<0.0533	<0.0267	<0.0107	<0.00533	<0.0107	<0.00533	<0.0267
SB-21*	11/3/2023	9.5 - 11.3	<0.0788	<0.157	<0.0393	**0.127**	<0.0393	<0.00788	<0.0788	<0.0393	<0.0157	<0.00788	<0.0157	<0.00788	<0.0393
SB-22	11/2/2023	2 - 3	0.0156 J	<0.0610	<0.0165	0.00115 J	<0.0152	<0.00305 J4	<0.0305	<0.0152	<0.00610	<0.00305	<0.00610	<0.00305	<0.0152
SB-22	11/2/2023	4 - 5	<0.0322	<0.0645	<0.0161	<0.00129	<0.0161	<0.00322	<0.0322	<0.0161	<0.00645	<0.00322	<0.00645	<0.00322	<0.0161
SB-22	11/3/2023	6.5 - 9.5	<0.0480	<0.0960	<0.0240	0.00745	<0.0240	<0.00480	<0.0480	<0.0240	<0.00960	<0.00480	<0.00960	<0.00480	<0.0240
SB-22*	11/3/2023	6.5 - 9.5	0.0327 J	<0.106	<0.0265	0.00645	<0.0265	<0.00531	<0.0531	<0.0265	<0.0106	<0.00531	<0.0106	<0.00531	<0.0265
SB-22	11/3/2023	11 - 12.5	<0.0537	<0.107	<0.0269	0.0166	<0.0269	<0.00537	<0.0537	<0.0269	<0.0107	<0.00537	<0.0107	<0.00537	<0.0269
SB-23	11/1/2023	2 - 3	<0.0337	<0.0673 C3	<0.0168	0.00144	<0.0168	<0.00337	<0.0337	<0.0168	<0.00673	<0.00337	<0.00673	<0.00337	<0.0168
SB-23	11/1/2023	4 - 5	0.118	<0.0787 C3	<0.0197	0.00565	<0.0197	<0.00393	<0.0393	<0.0197	<0.00787	<0.00393	<0.00787	<0.00393	<0.0197
SB-23	11/4/2023	6.5 - 8	<0.0476	<0.0953	<0.0238	0.00146 J	<0.0238	<0.00476	<0.0476	<0.0238	<0.00953	<0.00476	<0.00953	<0.00476	<0.0238
SB-23	11/4/2023	11 - 12.5	<0.0551	0.116	<0.0276	0.0498	<0.0276	<0.00551	<0.0551	<0.0276	<0.0110	<0.00551	<0.0110	<0.00551	<0.0276
SB-23	11/4/2023	17 - 18.5	<0.0592	0.117 J	<0.0296	<0.00237	<0.0296	<0.00592	<0.0592	<0.0296	<0.0118	<0.00592	<0.0118	<0.00592	<0.0296
SB-24	10/31/2023	1.5 - 2	<0.0350	0.125 C5	<0.0175	0.00266	<0.0175	<0.00350	<0.0350	<0.0175	<0.00701	<0.00350	<0.00701	<0.00350	<0.0175
SB-24	10/31/2023	4 - 5	<0.0587	0.202 C5	<0.0294	0.0324	<0.0294	<0.00587	<0.0587	<0.0294	<0.0117	<0.00587	<0.0117	<0.00587	<0.0294
SB-24	10/31/2023	8 - 9.5	<0.0855	0.338 C5	<0.0428	<0.00342	<0.0428	<0.00855	<0.0855	<0.0428	<0.0171	<0.00855	<0.0171	<0.00855	<0.0428
SB-24	10/31/2023	11 - 12.5	<0.117	0.602 C5	<0.0587	<0.00469	<0.0587	**<0.0117**	<0.117	<0.0587	<0.0234	<0.0117	<0.0234	<0.0117	<0.0587
SB-24	10/31/2023	15.5 - 17	<0.0686	<0.137 C3 J3	<0.0343	<0.00274	<0.0343	<0.00686	<0.0686	<0.0343	<0.0137	<0.00686	<0.0137	<0.00686	<0.0343
SB-25	11/7/2023	2 - 3	<0.0479	<0.0957	<0.0240	<0.00191	<0.0240	<0.00479	<0.0479	<0.0240	<0.00957	<0.00479	<0.00957	<0.00479	<0.0240
SB-25	11/7/2023	4 - 5	<0.0513	<0.103	<0.0256	<0.00205	<0.0256	<0.00513	<0.0513	<0.0256	<0.0103	0.00324 J	<0.0103	<0.00513	<0.0256
SB-25	11/7/2023	8 - 8.8	<0.0359	<0.0719 C3	<0.0180	<0.00144	<0.0180	<0.00359	<0.0359	<0.0180	<0.00719	<0.00359	<0.00719	<0.00359	<0.0180

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	4-Methyl-2-pentanone	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	70,000	37	--	15	260	750	34	8,700	--	26	25,000
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	21,000	380	--	230	2,700	370	320	4,700	--	410	25,000
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	0.1	--	0.0088	0.22	0.4	0.058	27	1,300	0.015	9.1
SB-25	11/7/2023	11 - 12	<0.0348	<0.0696 C3	<0.0174	0.00114 J	<0.0174	<0.00348	<0.0348	<0.0174	<0.00696	<0.00348	<0.00696	<0.00348	<0.0174
SB-26	11/7/2023	2 - 3	<0.0361	<0.0722 C3	<0.0181	0.00101 J	<0.0181	<0.00361	<0.0361	<0.0181	<0.00722	<0.00361	<0.00722	<0.00361	<0.0181
SB-26	11/7/2023	4 - 5	<0.0339	<0.0679 C3	<0.0170	<0.00136	<0.0170	<0.00339	<0.0339	<0.0170	<0.00679	<0.00339	<0.00679	<0.00339	<0.0170
SB-26	11/7/2023	8 - 9	<0.0644	<0.129 C3	<0.0322	0.00265	<0.0322	<0.00644	<0.0644	<0.0322	<0.0129	<0.00644	<0.0129	<0.00644	<0.0322
SB-26	11/7/2023	11 - 12	<0.0329	<0.0658 C3	<0.0165	0.000735 J	<0.0165	<0.00329	<0.0329	<0.0165	<0.00658	<0.00329	<0.00658	<0.00329	<0.0165
SB-27	11/7/2023	2 - 3	<0.0393	<0.0787	<0.0197	<0.00157	<0.0197	<0.00393	<0.0393	<0.0197	<0.00787	<0.00393	<0.00787	<0.00393	<0.0197
SB-27	11/7/2023	4 - 5	<0.0504	<0.101	<0.0252	<0.00202	<0.0252	<0.00504	<0.0504	<0.0252	<0.0101	<0.00504	<0.0101	<0.00504	<0.0252
SB-27	11/7/2023	8 - 9.1	<0.0637	<0.127 C3	<0.0318	<0.00255	<0.0318	<0.00637	<0.0637	<0.0318	<0.0127	<0.00637	<0.0127	<0.00637	<0.0318
SB-27	11/7/2023	9.5 - 10.2	<0.0355	<0.0710 C3	<0.0177	<0.00142	<0.0177	<0.00355	<0.0355	<0.0177	<0.00710	<0.00355	<0.00710	<0.00355	<0.0177
SB-28	11/6/2023	2 - 3	<0.0723	<0.145	<0.0361	<0.00289	<0.0361	<0.00723	<0.0723	<0.0361	<0.0145	<0.00723	<0.0145	<0.00723	<0.0361
SB-28	11/6/2023	4 - 5	<0.0847	<0.169	<0.0423	<0.00339	<0.0423	<0.00847	<0.0847	<0.0423	<0.0169	<0.00847	<0.0169	<0.00847	<0.0423
SB-28	11/7/2023	12.5 - 13.5	<0.0420	<0.0839	<0.0210	<0.00168	<0.0210	<0.00420	<0.0420	<0.0210	<0.00839	0.000574 J	<0.00839	<0.00420	<0.0210
SB-28	11/7/2023	18.5 - 19.8	<0.0405	<0.0810	<0.0203	0.000864 J	<0.0203	<0.00405	<0.0405	<0.0203	<0.00810	<0.00405	<0.00810	<0.00405	<0.0203
SB-29	11/6/2023	2 - 3	<0.0430	<0.0859	<0.0215	<0.00172	<0.0215	<0.00430	<0.0430	<0.0215	<0.00859	<0.00430	<0.00859	<0.00430	<0.0215
SB-29	11/6/2023	4 - 5	<0.0360	<0.0721	<0.0180	<0.00144	<0.0180	<0.00360	<0.0360	<0.0180	<0.00721	<0.00360	<0.00721	<0.00360	<0.0180
SB-29	11/7/2023	9.5 - 10.5	<0.0339	<0.0678	<0.0169	<0.00136	<0.0169	<0.00339	<0.0339	<0.0169	<0.00678	0.0461	<0.00678	<0.00339	<0.0169
SB-29	11/7/2023	11 - 12.5	<0.0348	<0.0695	<0.0174	<0.00139	<0.0174	<0.00348	<0.0348	<0.0174	<0.00695	0.0419	<0.00695	<0.00348	<0.0174
SB-29	11/7/2023	15.5 - 17	<0.0363	<0.0726	<0.0181	**1.12**	<0.0181	<0.00363	<0.0363	<0.0181	<0.00726	0.00189 J	<0.00726	<0.00363	<0.0181
T1-B1	11/1/2023	--	<0.0320	<0.0640	<0.0160	0.000929 J	<0.0160	<0.00320	<0.0320	<0.0160 J3	<0.00640	<0.00320	<0.00640 J3	<0.00320	<0.0160 C3
T1-B2	11/1/2023	--	<0.0340	0.167	<0.0170	0.00273	<0.0170	<0.00340	<0.0340	<0.0170 J3	<0.00679	<0.00340	<0.00679 J3	<0.00340	<0.0170 C3
T2-B1	11/1/2023	--	<0.0336	<0.0671	<0.0168	<0.00134	<0.0168	<0.00336	<0.0336	<0.0168 J3	<0.00671	<0.00336	<0.00671 J3	<0.00336	<0.0168 C3
T2-B2	11/1/2023	--	<0.0367	0.377	<0.0184	0.00698	<0.0184	<0.00367	<0.0367	<0.0184 J3	<0.00734	<0.00367	<0.00734 J3	<0.00367	<0.0184 C3
T2-B3	11/1/2023	--	<0.0310	<0.0620 C3	<0.0155	0.00349	<0.0155	<0.00310	<0.0310	<0.0155	<0.00620	<0.00310	<0.00620	<0.00310	<0.0155
T3-B1	11/1/2023	--	<0.0352	0.08	<0.0176	<0.00141	<0.0176	<0.00352	<0.0352	<0.0176 J3	<0.00703	<0.00352	<0.00703 J3	<0.00352	<0.0176 C3
T3-B2	11/1/2023	--	<0.0352	<0.0704	<0.0176	0.00503	<0.0176	<0.00352	<0.0352	<0.0176 J3	<0.00704	<0.00352	<0.00704 J3	<0.00352	<0.0176 C3
T3-B3	11/1/2023	--	<0.0305	<0.0610 C3	<0.0153	0.0323	<0.0153	<0.00305	<0.0305	<0.0153	<0.00610	<0.00305	<0.00610	<0.00305	<0.0153
T4-B1	11/1/2023	--	<0.0331	0.0816	<0.0166	<0.00133	<0.0166	<0.00331	<0.0331	<0.0166 J3	<0.00663	<0.00331	<0.00663 J3	<0.00331	<0.0166 C3
T4-B2	11/1/2023	--	<0.737	<1.47	<0.369	0.0698	<0.369	**<0.0737**	**<0.737**	<0.369 J3	**<0.147**	<0.0737	<0.147 J3	**<0.0737**	<0.369 C3
T4-B3	11/1/2023	--	<0.0371	<0.0742 C3	<0.0186	0.0356	<0.0186	<0.00371	<0.0371	<0.0186	<0.00742	<0.00371	<0.00742	<0.00371	<0.0186

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	Methyl Tertiary Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**2,300**	**--**	**17**	**--**	**--**	**--**	**150**	**--**	**57,000**	**1,100**	**1,600**	**23**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**710**	**--**	**210**	**--**	**--**	**--**	**1,700**	**--**	**27,000**	**12,000**	**2,100**	**580**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**4.5**	**--**	**0.011**	**--**	**--**	**--**	**0.9**	**--**	**-**	**0.54**	**2.4**	**0.34**	**--**
MW-26	11/4/2023	2 - 3	<0.00385	<0.00385	<0.00385	<0.00770	<0.00770	<0.00154	0.00157 J	<0.0385	<0.00385	<0.00154	<0.0385	<0.0192 C3	<0.0192
MW-26	11/4/2023	4 - 5	<0.00553	<0.00553	<0.00553	<0.0111	<0.0111	<0.00221	<0.00553	<0.0553	0.00852	<0.00221	<0.0553	<0.0277 C3	0.107
MW-26	11/4/2023	6.5 - 8	<0.00422	<0.00422	<0.00422	<0.00844	<0.00844	<0.00169	<0.00422	<0.0422	<0.00422	<0.00169	<0.0422	<0.0211 C3	<0.0211
MW-26	11/4/2023	12.5 - 14	<0.00395	<0.00395	<0.00395	<0.00790	<0.00790	<0.00158	<0.00395	<0.0395	0.00212 J	<0.00158	<0.0395	<0.0198 C3	0.0155 J
MW-26	11/4/2023	15.5 - 17	<0.00490	<0.00490	<0.00490	<0.00980	<0.00980	<0.00196	<0.00490	<0.0490	0.00137 J	<0.00196	<0.0490	<0.0245 C3	<0.0245
MW-27	11/2/2023	2 - 3	<0.00398	<0.00398	<0.00398	<0.00797	<0.00797	<0.00159	0.00233 J	<0.0398	0.00245 J	<0.00159	<0.0398	<0.0199	<0.0199
MW-27	11/2/2023	4 - 5	<0.00497	<0.00497	<0.00497	<0.00994	<0.00994	<0.00199	0.0237	<0.0497	0.0372	<0.00199	<0.0497	0.0138 J	0.031
MW-27	11/4/2023	6.5 - 8	<0.00497	<0.00497	<0.00497	<0.00995	<0.00995	<0.00199	0.00147 J	<0.0497	0.00442 J	<0.00199	<0.0497	<0.0249 C3	<0.0249
MW-27	11/4/2023	11 - 12.5	<0.00843	<0.00843	<0.00843	<0.0168	<0.0168	<0.00336	0.00294 J	<0.0843	0.00497 J	<0.00336	<0.0843	<0.0421 C3	<0.0421
MW-27	11/4/2023	15.5 - 17	<0.0123	<0.0123	**<0.0123**	<0.0247	<0.0247	<0.00494	0.0256	<0.123	0.00284 J	<0.00494	<0.123	<0.0619 C3	<0.0619
MW-28	11/4/2023	2 - 3	<0.00521	<0.00521	<0.00521	<0.0104	<0.0104	<0.00208	0.0194	<0.0521	0.00133 J	<0.00208	<0.0521	0.0117 C3 J	<0.0260
MW-28	11/4/2023	4 - 5	<0.00521	<0.00521	<0.00521	<0.0104	<0.0104	<0.00208	<0.00521	<0.0521	<0.00521	<0.00208	<0.0521	<0.0260 C3	<0.0260
MW-28	11/4/2023	8 - 9.5	<0.00555	<0.00555	<0.00555	<0.0111	<0.0111	<0.00222	0.00741	<0.0555	0.00271 J	<0.00222	<0.0555	<0.0277 C3	<0.0277
MW-28	11/4/2023	11 - 14	<0.00544	<0.00544	<0.00544	<0.0109	<0.0109	<0.00217	0.00544 J	<0.0544	0.00307 J	<0.00217	<0.0544	<0.0272 C3	<0.0272
MW-28*	11/4/2023	11 - 14	<0.00891	<0.00891	<0.00891	<0.0178	<0.0178	<0.00356	0.0148	<0.0891	0.00812 J	<0.00356	<0.0891	<0.0445 C3	<0.0445
MW-28	11/4/2023	17 - 18.5	<0.00583	<0.00583	<0.00583	<0.0116	<0.0116	<0.00233	<0.00583	<0.0583	0.00303 J	<0.00233	<0.0583	<0.0291 C3	<0.0291
MW-29	11/1/2023	6.5 - 8	<0.00463	<0.00463	<0.00463	<0.00927	<0.00927	<0.00185	0.00371 J	<0.0463	0.123	<0.00185	0.0241 J	<0.0232 C3	<0.0232
MW-29	11/1/2023	11 - 14	<0.00636	<0.00636	<0.00636	<0.0127	<0.0127	<0.00254	0.0358	<0.0636	0.115	<0.00254	0.0419 J	<0.0317 C3	0.133
MW-29*	11/1/2023	11 - 14	<0.00425	<0.00425	<0.00425	<0.00849	<0.00849	<0.00170	0.0306	<0.0425	0.0995	<0.00170	0.0355 J	<0.0213 C3	0.143
MW-29	11/1/2023	17 - 18.5	<0.00761	<0.00761	<0.00761	<0.0152	<0.0152	<0.00304	0.00535 J	<0.0761	0.00313 J	<0.00304	0.0459 J	<0.0380 C3	<0.0380
MW-30	11/1/2023	2 - 3	<0.00384	<0.00384	<0.00384	<0.00768	<0.00768	<0.00154	0.00352 J	<0.0384	0.00143 J	<0.00154	0.0287 J	0.00789 C3 J	<0.0192
MW-30*	11/1/2023	2 - 3	<0.00400	<0.00400	<0.00400	<0.00799	<0.00799	<0.00160	0.00858	<0.0400	0.00259 J	<0.00160	0.0302 J	0.0152 C3 J	<0.0200
MW-30	11/1/2023	4 - 5	<0.00355	<0.00355	<0.00355	<0.00710	<0.00710	<0.00142	<0.00355	<0.0355	0.000606 J	<0.00142	0.0189 J	<0.0177 C3	<0.0177
MW-30	11/2/2023	6.5 - 8	<0.00402	<0.00402	<0.00402	<0.00804	<0.00804	<0.00161	<0.00402	<0.0402	<0.00402	<0.00161	<0.0402	<0.0201	<0.0201
MW-30	11/2/2023	11 - 14	<0.00591	<0.00591	<0.00591	<0.0118	<0.0118	<0.00236	0.00420 J	<0.0591	0.00424 J	<0.00236	<0.0591	0.0241 J	<0.0295
MW-30*	11/2/2023	11 - 14	<0.00823	<0.00823	<0.00823	<0.0164	<0.0164	<0.00329	0.00412 J	<0.0823	0.00500 J	<0.00329	<0.0823	0.0255 J	<0.0412
MW-30	11/2/2023	15.5 - 17	<0.00858	<0.00858	<0.00858	<0.0171	<0.0171	<0.00343	<0.00858	<0.0858	0.00479 J	<0.00343	<0.0858	<0.0429	<0.0429
MW-31	10/31/2023	2 - 2.5	<0.00332	<0.00332	<0.00332	<0.00663	<0.00663 C3J3	<0.00133	0.00681	<0.0332 J3	0.00158 J	<0.00133	<0.0332	0.0153 J	<0.0166
MW-31	10/31/2023	4 - 5	<0.00495	<0.00495	<0.00495	<0.00991	<0.00991	<0.00198	0.00577	<0.0495	0.159	<0.00198	<0.0495	<0.0248	0.953

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	Methyl Tertiary Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**2,300**	**--**	**17**	**--**	**--**	**--**	**150**	**--**	**57,000**	**1,100**	**1,600**	**23**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**710**	**--**	**210**	**--**	**--**	**--**	**1,700**	**--**	**27,000**	**12,000**	**2,100**	**580**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**4.5**	**--**	**0.011**	**--**	**--**	**--**	**0.9**	**--**	**-**	**0.54**	**2.4**	**0.34**	**--**
MW-31	10/31/2023	6.5 - 8	<0.00505	<0.00505	<0.00505	<0.0101	<0.0101	<0.00202	0.00476 J	<0.0505	0.201	<0.00202	<0.0505	<0.0252	0.49
MW-31	10/31/2023	12.5 - 14	<0.00663	<0.00663	<0.00663	<0.0132	<0.0132	<0.00265	0.00524 J	<0.0663	0.0206	<0.00265	<0.0663	<0.0332	0.0724
MW-32	11/6/2023	2 - 3	<0.00451	<0.00451	<0.00451	<0.00900	<0.00900	<0.00180	<0.00451	<0.0451	<0.00451	<0.00180	<0.0451	<0.0225 C3	<0.0225 C3
MW-32	11/6/2023	4 - 5	<0.00880	<0.00880	<0.00880	<0.0176	<0.0176	<0.00352	<0.00880	<0.0880	0.00511 J	<0.00352	<0.0880	0.0435 C3J	<0.0440 C3
MW-32	11/6/2023	7.5 - 9.5	0.00776 J	<0.0108	<0.0108	<0.0215	<0.0215	<0.00430	0.00968 J	<0.108	<0.0108	<0.00430	<0.108	<0.0538 C3	<0.0538 C3
MW-32	11/6/2023	12.5 - 14	<0.0111	<0.0111	**<0.0111**	<0.0222	<0.0222	<0.00444	<0.0111	<0.111	<0.0111	<0.00444	<0.111	<0.0556 C3	<0.0556 C3
MW-32	11/6/2023	16 - 18.5	<0.00418	<0.00418	<0.00418	<0.00836	<0.00836	<0.00167	<0.00418	<0.0418	<0.00418	<0.00167	<0.0418	<0.0209 C3	<0.0209 C3
MW-33	11/6/2023	2 - 3	<0.00357	<0.00357	<0.00357	<0.00712	<0.00712 C3	<0.00142	<0.00357	<0.0357 C3	<0.00357	<0.00142	0.0100 BJ	<0.0178	<0.0178
MW-33	11/6/2023	4 - 5	<0.00420	<0.00420	<0.00420	<0.00840	<0.00840 C3	<0.00168	<0.00420	<0.0420 C3	<0.00420	<0.00168	<0.0420	<0.0211	<0.0211
MW-33	11/6/2023	6.5 - 8	<0.00402	<0.00402	<0.00402	<0.00804	<0.00804 C3	<0.00161	0.0127	<0.0402 C3	<0.00402	<0.00161	<0.0402	<0.0201	<0.0201
MW-33	11/6/2023	12.5 - 14	<0.00474	<0.00474	<0.00474	<0.00949	<0.00949 C3	<0.00190	0.00833	<0.0474 C3	<0.00474	<0.00190	<0.0474	<0.0237	<0.0237
MW-33	11/6/2023	15.5 - 17	<0.00406	<0.00406	<0.00406	<0.00811	<0.00811 C3	<0.00162	0.00333 J	<0.0406 C3	<0.00406	<0.00162	<0.0406	<0.0203	<0.0203
MW-34	11/6/2023	2 - 3	<0.00389	<0.00389	<0.00389	<0.00778	<0.00778	<0.00156	<0.00389	<0.0389	<0.00389	<0.00156	<0.0389	<0.0195 C3	<0.0195
MW-34	11/6/2023	4 - 5	<0.00351	<0.00351	<0.00351	<0.00701	<0.00701	<0.00140	<0.00351	<0.0351	<0.00351	<0.00140	<0.0351	<0.0175 C3	<0.0175
MW-34	11/6/2023	8 - 9	<0.00396	<0.00396	<0.00396	<0.00791	<0.00791	<0.00158	0.00617	<0.0396	<0.00396	<0.00158	<0.0396	<0.0198 C3	<0.0198
MW-34	11/6/2023	12.5 - 14	<0.0142	<0.0142	**<0.0142**	<0.0283	<0.0283	<0.00567	0.0187	<0.142	0.0442	<0.00567	<0.142	<0.0708 C3	<0.0708 C3
MW-34	11/6/2023	17 - 18.5	<0.00821	<0.00821	<0.00821	<0.0164	<0.0164	<0.00328	<0.00821	<0.0821	0.0086	<0.00328	<0.0821	<0.0410 C3	<0.0410 C3
SB-17	11/2/2023	1.5 - 2.5	<0.00275	<0.00275	<0.00275	<0.00550	<0.00550	<0.00110	<0.00275	<0.0275	<0.00275	<0.00110	0.0231 J	<0.0137 C3	<0.0137
SB-17	11/2/2023	4 - 5	<0.00311	<0.00311	<0.00311	<0.00621	<0.00621	<0.00124	<0.00311	<0.0311	<0.00311	<0.00124	<0.0311	<0.0155	<0.0155 C3
SB-17*	11/2/2023	4 - 5	<0.00303	<0.00303	<0.00303	<0.00605	<0.00605	<0.00121	<0.00303	<0.0303	0.000734 J	<0.00121	<0.0303	0.0110 J	<0.0151 C3
SB-18	11/2/2023	2 - 4	<0.00349	<0.00349	<0.00349	<0.00697	<0.00697	<0.00139	0.0131	<0.0349	<0.00349	<0.00139	0.0165 J	0.0471	0.0101 J
SB-18	11/2/2023	2 - 4	<0.00330	<0.00330	<0.00330	<0.00660	<0.00660	<0.00122	0.0179	<0.0330	0.00367	<0.00132	0.0256 J	0.0798	0.0166
SB-18	11/2/2023	4 - 5	<0.00315	<0.00315	<0.00315	<0.00631	<0.00631	<0.00126	0.00394	<0.0315	<0.00315	0.000517 J	0.0192 J	0.0254	<0.0158
SB-18	11/2/2023	6.5 - 7.5	<0.00378	<0.00378	<0.00378	<0.00755	<0.00755	<0.00151	0.0186	<0.0378	0.00294 J	<0.00151	<0.0378	0.0663	<0.0189 C3
SB-18	11/2/2023	9.5 - 10.5	<0.00378	<0.00378	<0.00378	<0.00757	<0.00757	<0.00151	<0.00378	<0.0378	0.0509	<0.00151	<0.0378	<0.0189	0.292 C3
SB-18A	11/7/2023	2 - 3	<0.00322	<0.00322	<0.00322	<0.00645	<0.00645	<0.00129	0.00686	<0.0322	<0.00322	<0.00129	<0.0322	0.0235	<0.0161
SB-18A	11/7/2023	4 - 5	<0.00318	<0.00318	<0.00318	<0.00635	<0.00635	<0.00127	<0.00318	<0.0318	<0.00318	0.000513 J	0.0117 BJ	0.00794 J	<0.0159
SB-19	11/2/2023	2 - 3	<0.00494	<0.00494	<0.00494	<0.00988	<0.00988	<0.00198	<0.00494	<0.0494	<0.00494	<0.00198	0.0358 J	0.082	<0.0247 C3
SB-19	11/2/2023	4 - 5	<0.00598	<0.00598	<0.00598	<0.0120	<0.0120	<0.00239	<0.00598	<0.0598	<0.00598	<0.00239	<0.0598	<0.0299	<0.0299

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	Methyl Tertiary Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**2,300**	**--**	**17**	**--**	**--**	**--**	**150**	**--**	**57,000**	**1,100**	**1,600**	**23**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**710**	**--**	**210**	**--**	**--**	**--**	**1,700**	**--**	**27,000**	**12,000**	**2,100**	**580**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**4.5**	**--**	**0.011**	**--**	**--**	**--**	**0.9**	**--**	**-**	**0.54**	**2.4**	**0.34**	**--**
SB-19	11/2/2023	9.5 - 10.2	<0.0334	<0.0334	<0.0334	<0.0667	<0.0667 C3	<0.0133	<0.0334	<0.334	0.713	<0.0133 C3	<0.334	0.182	0.89
SB-19A	11/7/2023	2 - 3	<0.00435	<0.00435	<0.00435	<0.00870	<0.00870	<0.00174	<0.00435	<0.0435	<0.00435	0.000744 J	<0.0435	<0.0217	<0.0217
SB-19A*	11/7/2023	2 - 3	<0.00445	<0.00445	<0.00445	<0.00890	<0.00890	<0.00178	<0.00445	<0.0445	<0.00445	<0.00178	0.0187 BJ	<0.0223 C3	<0.0223
SB-19A	11/7/2023	4 - 5	<0.00435	<0.00435	<0.00435	<0.00870	<0.00870	<0.00174	<0.00435	<0.0435	<0.00435	0.00120 J	0.0151 BJ	<0.0218	<0.0218
SB-20	11/2/2023	2 - 3	<0.00397	<0.00397	<0.00397	<0.00795	<0.00795	<0.00159	<0.00397	<0.0397	<0.00397	<0.00159	<0.0397	<0.0199	<0.0199
SB-20	11/2/2023	4 - 5	<0.00422	<0.00422	<0.00422	<0.00843	<0.00843	<0.00169	<0.00422	<0.0422	<0.00422	<0.00169	<0.0422	<0.0211	<0.0211
SB-21	11/2/2023	2 - 2.5	<0.00319	<0.00319	<0.00319	<0.00638	<0.00638 C3	<0.00128	0.0416	<0.0319	0.00742	<0.00128 C3	<0.0319	0.167	0.00888 J
SB-21	11/2/2023	4 - 5	<0.00461	<0.00461	<0.00461	<0.00921	<0.00921	<0.00184	<0.00461	<0.0461	<0.00461	<0.00184	<0.0461	0.0146 J	<0.0230
SB-21	11/3/2023	8 - 9.5	<0.00490	<0.00490	<0.00490	<0.00981	<0.00981	<0.00196	0.00747	<0.0490	0.0814	<0.00196	<0.0490	<0.0245	<0.0245
SB-21	11/3/2023	9.5 - 11.3	<0.00533	<0.00533	<0.00533	<0.0107	<0.0107	<0.00213	<0.00533	<0.0533	0.109	<0.00213	<0.0533	<0.0267	0.0326
SB-21*	11/3/2023	9.5 - 11.3	<0.00788	<0.00788	<0.00788	<0.0157	<0.0157	<0.00315	0.0285	<0.0788	0.364	<0.00315	<0.0788	<0.0393	<0.0393
SB-22	11/2/2023	2 - 3	<0.00305	<0.00305	<0.00305	<0.00610	<0.00610	<0.00132	<0.00305	<0.0305	<0.00305	<0.00122	<0.0305	0.0143 J	<0.0152 C3
SB-22	11/2/2023	4 - 5	<0.00322	<0.00322	<0.00322	<0.00645	<0.00645	<0.00129	<0.00322	<0.0322	<0.00322	<0.00129	<0.0322	<0.0161	<0.0161
SB-22	11/3/2023	6.5 - 9.5	<0.00480	<0.00480	<0.00480	<0.00960	<0.00960	<0.00192	<0.00480	<0.0480	<0.00480	<0.00192	<0.0480	<0.0240	<0.0240
SB-22*	11/3/2023	6.5 - 9.5	<0.00531	<0.00531	<0.00531	<0.0106	<0.0106	<0.00212	0.00301 J	<0.0531	0.00242 J	<0.00212	<0.0531	<0.0265	<0.0265
SB-22	11/3/2023	11 - 12.5	<0.00537	<0.00537	<0.00537	<0.0107	<0.0107	<0.00215	0.0933	<0.0537	0.112	<0.00215	<0.0537	<0.0269	<0.0269
SB-23	11/1/2023	2 - 3	<0.00337	<0.00337	<0.00337	<0.00673	<0.00673	<0.00135	0.00264 J	<0.0337	0.00126 J	<0.00135	0.0287 J	<0.0168 C3	<0.0168
SB-23	11/1/2023	4 - 5	<0.00393	<0.00393	<0.00393	<0.00787	<0.00787	<0.00157	0.0117	<0.0393	0.0212	<0.00157	0.0279 J	0.0283 C3	0.0615
SB-23	11/4/2023	6.5 - 8	<0.00476	<0.00476	<0.00476	<0.00953	<0.00953	<0.00191	0.00492	<0.0476	0.56	<0.00191	<0.0476	<0.0238 C3	3.45
SB-23	11/4/2023	11 - 12.5	<0.00551	<0.00551	<0.00551	<0.0110	<0.0110	<0.00221	0.00834	<0.0551	0.00723	<0.00221	<0.0551	<0.0276 C3	<0.0276
SB-23	11/4/2023	17 - 18.5	<0.00592	<0.00592	<0.00592	<0.0118	<0.0118	<0.00237	<0.00592	<0.0592	0.00144 J	<0.00237	<0.0592	<0.0296 C3	<0.0296
SB-24	10/31/2023	1.5 - 2	<0.00350	<0.00350	<0.00350	<0.00701	<0.00701	<0.00140	0.00449	<0.0350	0.00125 J	<0.00140	<0.0350	0.00823 J	<0.0175
SB-24	10/31/2023	4 - 5	<0.00587	<0.00587	<0.00587	<0.0117	<0.0117	<0.00235	0.0211	<0.0587	0.0209	<0.00235	<0.0587	0.0220 J	0.0172 J
SB-24	10/31/2023	8 - 9.5	<0.00855	<0.00855	<0.00855	<0.0171	<0.0171	<0.00342	0.027	<0.0855	0.0192	0.00817	<0.0855	0.0455	0.0230 J
SB-24	10/31/2023	11 - 12.5	<0.0117	<0.0117	**<0.0117**	<0.0234	<0.0234	<0.00469	0.00925 J	<0.117	0.00705 J	0.0115	<0.117	<0.0587	<0.0587
SB-24	10/31/2023	15.5 - 17	<0.00686	<0.00686	<0.00686	<0.0137	<0.0137 C3J3	<0.00274	<0.00686	<0.0686 J3	<0.00686	<0.00274	<0.0686	<0.0343	<0.0343
SB-25	11/7/2023	2 - 3	<0.00479	<0.00479	<0.00479	<0.00957	<0.00957	<0.00191	<0.00479	<0.0479	<0.00479	<0.00191	<0.0479	<0.0240 C3	<0.0240 C3
SB-25	11/7/2023	4 - 5	<0.00513	<0.00513	<0.00513	<0.0103	<0.0103	<0.00205	<0.00513	<0.0513	<0.00513	<0.00205	<0.0513	<0.0256 C3	<0.0256 C3
SB-25	11/7/2023	8 - 8.8	<0.00359	<0.00359	<0.00359	<0.00719	<0.00719	<0.00144	<0.00359	<0.0359	<0.00359	<0.00144	0.0102 BJ	<0.0180 C3	<0.0180

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	Methyl Tertiary Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**2,300**	**--**	**17**	**--**	**--**	**--**	**150**	**--**	**57,000**	**1,100**	**1,600**	**23**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**710**	**--**	**210**	**--**	**--**	**--**	**1,700**	**--**	**27,000**	**12,000**	**2,100**	**580**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**4.5**	**--**	**0.011**	**--**	**--**	**--**	**0.9**	**--**	**-**	**0.54**	**2.4**	**0.34**	**--**
SB-25	11/7/2023	11 - 12	<0.00348	<0.00348	<0.00348	<0.00696	<0.00696	<0.00139	<0.00348	<0.0348	0.0214	<0.00139	0.0146 BJ	<0.0174 C3	0.053
SB-26	11/7/2023	2 - 3	<0.00361	<0.00361	<0.00361	<0.00722	<0.00722	<0.00144	<0.00361	<0.0361	0.0132	0.000620 J	<0.0361	<0.0181	0.0339
SB-26	11/7/2023	4 - 5	<0.00339	<0.00339	<0.00339	<0.00679	<0.00679	<0.00136	<0.00339	<0.0339	0.00183 J	<0.00136	0.0103 BJ	<0.0170	<0.0170
SB-26	11/7/2023	8 - 9	<0.00644	<0.00644	<0.00644	<0.0129	<0.0129	<0.00257	<0.00644	<0.0644	<0.00644	<0.00257	0.0223 BJ	<0.0322 C3	<0.0322
SB-26	11/7/2023	11 - 12	<0.00329	<0.00329	<0.00329	<0.00658	<0.00658	<0.00132	<0.00329	<0.0329	0.0392	<0.00132	0.0122 BJ	<0.0165 C3	0.0611
SB-27	11/7/2023	2 - 3	<0.00393	<0.00393	<0.00393	<0.00787	<0.00787	<0.00157	<0.00393	<0.0393	<0.00393	<0.00157	<0.0393	<0.0197 C3	<0.0197 C3
SB-27	11/7/2023	4 - 5	<0.00504	<0.00504	<0.00504	<0.0101	<0.0101	<0.00202	<0.00504	<0.0504	<0.00504	<0.00202	<0.0504	<0.0252 C3	<0.0252 C3
SB-27	11/7/2023	8 - 9.1	<0.00637	<0.00637	<0.00637	<0.0127	<0.0127	<0.00255	0.00274 J	<0.0637	<0.00637	<0.00255	0.0265 BJ	0.0180 J	<0.0318
SB-27	11/7/2023	9.5 - 10.2	<0.00355	<0.00355	<0.00355	<0.00710	<0.00710	<0.00142	0.00107 J	<0.0355	0.0538	<0.00142	<0.0355	<0.0177	0.155
SB-28	11/6/2023	2 - 3	<0.00723	<0.00723	<0.00723	<0.0145	<0.0145	<0.00289	<0.00723	<0.0723	<0.00723	<0.00289	<0.0723	<0.0361 C3	<0.0361 C3
SB-28	11/6/2023	4 - 5	<0.00847	<0.00847	<0.00847	<0.0169	<0.0169	<0.00339	<0.00847	<0.0847	<0.00847	<0.00339	<0.0847	<0.0423 C3	<0.0423 C3
SB-28	11/7/2023	12.5 - 13.5	<0.00420	<0.00420	<0.00420	<0.00839	<0.00839	<0.00168	<0.00420	<0.0420	<0.00420	<0.00168	<0.0420	<0.0210 C3	<0.0210 C3
SB-28	11/7/2023	18.5 - 19.8	<0.00405	<0.00405	<0.00405	<0.00810	<0.00810	<0.00162	<0.00405	<0.0405	<0.00405	<0.00162	<0.0405	<0.0203 C3	<0.0203 C3
SB-29	11/6/2023	2 - 3	<0.00430	<0.00430	<0.00430	<0.00859	<0.00859	<0.00172	<0.00430	<0.0430	<0.00430	<0.00172	<0.0430	<0.0215 C3	<0.0215 C3
SB-29	11/6/2023	4 - 5	<0.00360	<0.00360	<0.00360	<0.00721	<0.00721	<0.00144	<0.00360	<0.0360	0.00206 J	<0.00144	<0.0360	<0.0180 C3	<0.0180 C3
SB-29	11/7/2023	9.5 - 10.5	<0.00339	<0.00339	<0.00339	<0.00678	<0.00678	<0.00136	0.00243 J	<0.0339	0.0542	<0.00136	<0.0339	<0.0169 C3	0.767 C3
SB-29	11/7/2023	11 - 12.5	<0.00348	<0.00348	<0.00348	<0.00695	<0.00695	<0.00139	0.00336 J	<0.0348	0.124	<0.00139	<0.0348	<0.0174 C3	0.649 C3
SB-29	11/7/2023	15.5 - 17	<0.00363	<0.00363	<0.00363	<0.00726	<0.00726	<0.00145	0.167	<0.0363	0.0244	<0.00145	<0.0363	**0.444 C3**	0.0224 C3
T1-B1	11/1/2023	--	<0.00320	<0.00320	<0.00320	<0.00640	<0.00640	<0.00128	<0.00320	<0.0320	<0.00320	<0.00128	<0.0320	<0.0160	<0.0160
T1-B2	11/1/2023	--	<0.00340	<0.00340	<0.00340	<0.00679	<0.00679	<0.00136	0.00101 J	<0.0340	<0.00340	<0.00136	<0.0340	<0.0170	<0.0170
T2-B1	11/1/2023	--	<0.00336	<0.00336	<0.00336	<0.00671	<0.00671	<0.00134	<0.00336	<0.0336	<0.00336	<0.00134	<0.0336	<0.0168	<0.0168
T2-B2	11/1/2023	--	<0.00367	<0.00367	<0.00367	<0.00734	<0.00734	<0.00147	<0.00367	<0.0367	<0.00367	<0.00147	<0.0367	<0.0184	0.00829 J
T2-B3	11/1/2023	--	<0.00310	<0.00310	<0.00310	<0.00620	<0.00620	<0.00124	0.000980 J	<0.0310	<0.00310	<0.00124	<0.0310	<0.0155 C3	<0.0155
T3-B1	11/1/2023	--	<0.00352	<0.00352	<0.00352	<0.00703	<0.00703	<0.00141	<0.00352	<0.0352	<0.00352	<0.00141	<0.0352	<0.0176	<0.0176
T3-B2	11/1/2023	--	<0.00352	<0.00352	<0.00352	<0.00704	<0.00704	<0.00141	0.00166 J	<0.0352	<0.00352	<0.00141	<0.0352	<0.0176	0.00760 J
T3-B3	11/1/2023	--	<0.00305	<0.00305	<0.00305	<0.00610	<0.00610	<0.00122	0.0532	<0.0305	0.00848	<0.00122	0.0104 BJ	0.0596 C3	<0.0153
T4-B1	11/1/2023	--	<0.00331	<0.00331	<0.00331	<0.00663	<0.00663	<0.00133	<0.00331	<0.0331	<0.00331	<0.00133	<0.0331	<0.0166	<0.0166
T4-B2	11/1/2023	--	<0.0737	<0.0737	**<0.0737**	<0.147	<0.147	<0.0295	0.777	<0.737	1.19	<0.0295	<0.737	**0.543**	2.85
T4-B3	11/1/2023	--	<0.00371	<0.00371	<0.00371	<0.00742	<0.00742	<0.00148	0.0463	<0.0371	0.00886	<0.00148	<0.0371	0.0600 C3	<0.0186

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (Freon 11)	Vinyl Chloride
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	**130,000**	--	**1,000**	**88,000**	**25,000**	**23,000**	--	**51**	**130,000**	**4**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	**56,000**	--	**1,800**	**28,000**	**20,000**	**7,100**	--	**130**	**69,000**	**34**
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	**800**	--	**1.9**	**490**	**100**	**51**	--	**0.087**	**280**	**0.01**
MW-26	11/4/2023	2 - 3	<0.00770	<0.00770	<0.0192	0.000766 C3 J	<0.00770	<0.00385	<0.00770	0.00271 J	<0.00770	<0.00770	<0.00154	<0.00385	<0.00385
MW-26	11/4/2023	4 - 5	<0.0111	<0.0111	0.147	<0.0277 C3	0.0248	<0.00553	<0.0111	0.00502 J	<0.0111	<0.0111	<0.00221	<0.00553	<0.00553
MW-26	11/4/2023	6.5 - 8	<0.00844	<0.00844	<0.0211	<0.0211 C3	<0.00844	<0.00422	<0.00844	<0.0110	<0.00844	<0.00844	<0.00169	<0.00422	<0.00422
MW-26	11/4/2023	12.5 - 14	0.00275 J	0.0154	0.028	<0.0198 C3	0.00610 J	<0.00395	0.00404 J	0.00730 J	<0.00790	<0.00790	<0.00158	<0.00395	<0.00395
MW-26	11/4/2023	15.5 - 17	<0.00980	0.0106	0.0139 J	<0.0245 C3	0.00423 J	<0.00490	0.0115	0.00470 J	<0.00980	<0.00980	<0.00196	<0.00490	<0.00490
MW-27	11/2/2023	2 - 3	0.00233 J	<0.00797	<0.0199	<0.0199	<0.00797	<0.00398	0.00354 J	0.00762 J	<0.00797	<0.00797	<0.00159	<0.00398	<0.00398
MW-27	11/2/2023	4 - 5	0.0141	0.0156	0.00982 J	<0.0249	<0.00994	<0.00497	0.124	0.193	<0.00994	<0.00994	<0.00199	<0.00497	<0.00497
MW-27	11/4/2023	6.5 - 8	0.00221 J	<0.00995	<0.0249	<0.0249 C3	<0.00995	<0.00497	0.00684 J	0.0129 J	<0.00995	<0.00995	<0.00199	<0.00497	<0.00497
MW-27	11/4/2023	11 - 12.5	<0.0168	<0.0168	<0.0421	<0.0421 C3	<0.0168	<0.00843	0.7370	0.0164 J	<0.0168	<0.0168	<0.00336	<0.00843	<0.00843
MW-27	11/4/2023	15.5 - 17	<0.0247	<0.0247	<0.0619	<0.0619 C3	<0.0247	<0.0123	0.0376	0.106	<0.0247	<0.0247	<0.00494	<0.0123	**<0.0123**
MW-28	11/4/2023	2 - 3	0.00323 J	<0.0104	<0.0260	<0.0260 C3	<0.0104	<0.00521	0.0689	0.161	<0.0104	<0.0104	<0.00208	<0.00521	<0.00521
MW-28	11/4/2023	4 - 5	<0.0104	<0.0104	<0.0260	<0.0260 C3	<0.0104	<0.00521	<0.0104	0.00260 J	<0.0104	<0.0104	<0.00208	<0.00521	<0.00521
MW-28	11/4/2023	8 - 9.5	0.00271 J	<0.0111	<0.0277	<0.0277 C3	<0.0111	<0.00555	0.00901 J	0.0317	<0.0111	<0.0111	<0.00222	<0.00555	<0.00555
MW-28	11/4/2023	11 - 14	0.00454 J	0.00644 J	<0.0272	<0.0272 C3	<0.0109	<0.00544	0.00822 J	0.0226	<0.0109	<0.0109	<0.00217	<0.00544	<0.00544
MW-28*	11/4/2023	11 - 14	0.0109 J	0.0137 J	<0.0445	<0.0445 C3	<0.0178	<0.00891	0.0188	0.0666	<0.0178	<0.0178	<0.00356	<0.00891	<0.00891
MW-28	11/4/2023	17 - 18.5	<0.0116	<0.0116	<0.0291	<0.0291 C3	<0.0116	<0.00583	0.00472 J	0.0129 J	<0.0116	<0.0116	<0.00233	<0.00583	<0.00583
MW-29	11/1/2023	6.5 - 8	0.291	<0.00927	0.157	<0.0232	0.0193	<0.00463	0.0125	0.0404	<0.00927	<0.00927	<0.00185	<0.00463	<0.00463
MW-29	11/1/2023	11 - 14	0.347	0.00973 J	0.116	<0.0317	0.00884 J	<0.00636	0.0282	0.0734	<0.0127	<0.0127	<0.00254	<0.00636	<0.00636
MW-29*	11/1/2023	11 - 14	0.282	0.00646 J	0.097	<0.0213	0.00781 J	<0.00425	0.019	0.0581	<0.00849	<0.00849	<0.00170	<0.00425	<0.00425
MW-29	11/1/2023	17 - 18.5	0.00791 J	<0.0152	<0.0380	<0.0380	<0.0152	<0.00761	0.00837 J	0.0386	<0.0152	<0.0152	<0.00304	<0.00761	<0.00761
MW-30	11/1/2023	2 - 3	0.00327 J	<0.00768	<0.0192	<0.0192	<0.00768	<0.00384	0.00464 J	0.00998 J	<0.00768	<0.00768	<0.00154	<0.00384	<0.00384
MW-30*	11/1/2023	2 - 3	0.00839	0.00619 J	<0.0200	<0.0200	<0.00799	<0.00400	0.00802	0.0221	<0.00799	<0.00799	<0.00160	<0.00400	<0.00400
MW-30	11/1/2023	4 - 5	<0.00710	<0.00710	<0.0177	<0.0177	<0.00710	<0.00355	<0.00710	0.00677 J	<0.00710	<0.00710	<0.00142	<0.00355	<0.00355
MW-30	11/2/2023	6.5 - 8	<0.00804	<0.00804	<0.0201	<0.0201	<0.00804	<0.00402	0.00235 J	<0.0105	<0.00804	<0.00804	<0.00161	<0.00402	<0.00402
MW-30	11/2/2023	11 - 14	<0.0118	0.033	<0.0295	<0.0295	<0.0118	<0.00591	0.0126	0.0247	<0.0118	<0.0118	<0.00236	<0.00591	<0.00591
MW-30*	11/2/2023	11 - 14	<0.0164	0.0598	<0.0412	<0.0412	<0.0164	<0.00823	0.0188	0.0269	<0.0164	<0.0164	<0.00329	<0.00823	<0.00823
MW-30	11/2/2023	15.5 - 17	<0.0171	0.13	<0.0429	<0.0429	<0.0171	<0.00858	0.00727 J	0.0116 J	<0.0171	<0.0171	<0.00343	<0.00858	<0.00858
MW-31	10/31/2023	2 - 2.5	0.00442 J	0.0068	<0.0166	<0.0166	<0.00663	<0.00332	0.0111	0.0183	<0.00663	<0.00663	<0.00133	0.00943	<0.00332
MW-31	10/31/2023	4 - 5	0.25	<0.00991	0.194	<0.0248	0.103	<0.00495	0.0145	0.0569	<0.00991	<0.00991	<0.00198	<0.00495	<0.00495

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (Freon 11)	Vinyl Chloride
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	**130,000**	--	**1,000**	**88,000**	**25,000**	**23,000**	--	**51**	**130,000**	**4**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	**56,000**	--	**1,800**	**28,000**	**20,000**	**7,100**	--	**130**	**69,000**	**34**
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	**800**	--	**1.9**	**490**	**100**	**51**	--	**0.087**	**280**	**0.01**
MW-31	10/31/2023	6.5 - 8	0.279	<0.0101	0.206	<0.0252	0.0731	<0.00505	<0.0101	0.0202	<0.0101	<0.0101	<0.00202	<0.00505	<0.00505
MW-31	10/31/2023	12.5 - 14	0.0289	<0.0132	0.0239 J	<0.0332	0.00941 J	<0.00663	0.00682 J	0.0140 J	<0.0132	<0.0132	<0.00265	<0.00663	<0.00663
MW-32	11/6/2023	2 - 3	<0.00900	<0.00900	<0.0225	<0.0225	<0.00900	1.67 C5	<0.00900	<0.0117	<0.00900	<0.00900	<0.00180	<0.00451	<0.00451
MW-32	11/6/2023	4 - 5	<0.0176	0.0126 J	<0.0440	<0.0440	<0.0176	0.382 C5	0.0113 J	0.00784 J	<0.0176	<0.0176	<0.00352	<0.00880	<0.00880
MW-32	11/6/2023	7.5 - 9.5	0.00630 J	0.0245	<0.0538	<0.0538	<0.0215	0.757 C5	<0.0215	0.0174 J	<0.0215	<0.0215	0.0	<0.0108	**<0.0108**
MW-32	11/6/2023	12.5 - 14	<0.0222	<0.0222	<0.0556	<0.0556	<0.0222	0.0226 C5	0.00589 J	<0.0288	<0.0222	<0.0222	<0.00444	<0.0111	**<0.0111**
MW-32	11/6/2023	16 - 18.5	<0.00836	<0.00836	<0.0209	<0.0209	<0.00836	0.121 C5	0.00540 J	<0.0109	<0.00836	<0.00836	<0.00167	<0.00418	<0.00418
MW-33	11/6/2023	2 - 3	<0.00712	<0.00712	<0.0178	<0.0178	<0.00712	0.0119	<0.00712	<0.00926	<0.00712	<0.00712	<0.00142	<0.00357	<0.00357
MW-33	11/6/2023	4 - 5	<0.00840	<0.00840	<0.0211	<0.0211	<0.00840	0.011	<0.00840	<0.0109	<0.00840	<0.00840	<0.00168	<0.00420	<0.00420
MW-33	11/6/2023	6.5 - 8	0.00354 J	<0.00804	<0.0201	<0.0201	<0.00804	0.00376 J	0.0722	0.0858	<0.00804	<0.00804	<0.00161	<0.00402	<0.00402
MW-33	11/6/2023	12.5 - 14	<0.00949	1.97	<0.0237	<0.0237	<0.00949	0.0094	0.0554	0.0482	<0.00949	<0.00949	<0.00190	<0.00474	<0.00474
MW-33	11/6/2023	15.5 - 17	<0.00811	1.11	<0.0203	<0.0203	<0.00811	<0.00406	0.0263	0.0161 B	<0.00811	<0.00811	<0.00162	<0.00406	<0.00406
MW-34	11/6/2023	2 - 3	<0.00778	<0.00778	<0.0195	<0.0195 C3	<0.00778	<0.00389	<0.00778	<0.0101	<0.00778	<0.00778	<0.00156	<0.00389	<0.00389
MW-34	11/6/2023	4 - 5	<0.00701	<0.00701	<0.0175	<0.0175 C3	<0.00701	<0.00351	<0.00701	<0.00912	<0.00701	<0.00701	<0.00140	<0.00351	<0.00351
MW-34	11/6/2023	8 - 9	0.00234 J	<0.00791	<0.0198	0.00105 C3J	<0.00791	<0.00396	0.029	0.0508	<0.00791	<0.00791	<0.00158	<0.00396	<0.00396
MW-34	11/6/2023	12.5 - 14	0.106	0.0186 J	0.0164 J	<0.0708	<0.0283	<0.0142	0.151	0.116	<0.0283	<0.0283	<0.00567	<0.0142	**<0.0142**
MW-34	11/6/2023	17 - 18.5	0.0138 J	0.00891 J	<0.0410	<0.0410	<0.0164	<0.00821	0.0241	0.0174 J	<0.0164	<0.0164	<0.00328	<0.00821	<0.00821
SB-17	11/2/2023	1.5 - 2.5	<0.00550	<0.00550	<0.0137	<0.0137	<0.00550	<0.00275	<0.00550	<0.00715	<0.00550	<0.00550	<0.00110	<0.00275	<0.00275
SB-17	11/2/2023	4 - 5	<0.00621	<0.00621	<0.0155	<0.0155	<0.00621	<0.00311	0.00232 J	<0.00807	<0.00621	<0.00621	<0.00124	<0.00311	<0.00311
SB-17*	11/2/2023	4 - 5	<0.00605	<0.00605	<0.0151	<0.0151	<0.00605	<0.00303	0.00214 J	<0.00787	<0.00605	<0.00605	<0.00121	<0.00303	<0.00303
SB-18	11/2/2023	2 - 4	0.00819	<0.00697	<0.0174	<0.0174	<0.00697	<0.00349	0.0159	0.0497	<0.00697	<0.00697	<0.00139	<0.00349	<0.00349
SB-18	11/2/2023	2 - 4	0.0127	0.00708	<0.0165	<0.0165	<0.00660	<0.00330	0.0289	0.0708	<0.00660	<0.00660	<0.00132	<0.00330	<0.00330
SB-18	11/2/2023	4 - 5	0.00216 J	<0.00631	<0.0158	<0.0158	<0.00631	<0.00315	0.00580 J	0.0129	<0.00631	<0.00631	<0.00126	<0.00315	<0.00315
SB-18	11/2/2023	6.5 - 7.5	0.0124	0.00542 J	<0.0189	<0.0189	<0.00755	<0.00378	0.0231	0.0731	<0.00755	<0.00755	<0.00151	<0.00378	<0.00378
SB-18	11/2/2023	9.5 - 10.5	<0.00757	<0.00757	0.316	<0.0189	0.0291	<0.00378	<0.00757	<0.00984	<0.00757	<0.00757	<0.00151	<0.00378	<0.00378
SB-18A	11/7/2023	2 - 3	0.00396 J	<0.00645	<0.0161	<0.0161	<0.00645	<0.00322	0.0148	0.0328	<0.00645	<0.00645	<0.00129	<0.00322	<0.00322
SB-18A	11/7/2023	4 - 5	<0.00635	<0.00635	<0.0159	<0.0159	<0.00635	<0.00318	<0.00635	0.00135 J	<0.00635	<0.00635	<0.00127	<0.00318	<0.00318
SB-19	11/2/2023	2 - 3	<0.00988	<0.00988	<0.0247	<0.0247	<0.00988	<0.00494	0.00546 J	<0.0128	<0.00988	<0.00988	<0.00198	<0.00494	<0.00494
SB-19	11/2/2023	4 - 5	<0.0120	<0.0120	<0.0299	<0.0299	<0.0120	<0.00598	<0.0120	<0.0155	<0.0120	<0.0120	<0.00239	<0.00598	<0.00598

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (Freon 11)	Vinyl Chloride
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**--**	**--**	**--**	**130,000**	**--**	**1,000**	**88,000**	**25,000**	**23,000**	**--**	**51**	**130,000**	**4**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**--**	**--**	**--**	**56,000**	**--**	**1,800**	**28,000**	**20,000**	**7,100**	**--**	**130**	**69,000**	**34**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**800**	**--**	**1.9**	**490**	**100**	**51**	**--**	**0.087**	**280**	**0.01**
SB-19	11/2/2023	9.5 - 10.2	2.10 C5	<0.0667	0.759	<0.167	0.123 C5	<0.0334	<0.0667	0.0339 J	<0.0667	<0.0667	<0.0133	<0.0334	**<0.0334**
SB-19A	11/7/2023	2 - 3	<0.00870	<0.00870	<0.0217	<0.0217	<0.00870	<0.00435	<0.00870	<0.0113	<0.00870	<0.00870	<0.00174	<0.00435	<0.00435
SB-19A*	11/7/2023	2 - 3	<0.00890	<0.00890	<0.0223	<0.0223	<0.00890	<0.00445	<0.00890	0.00279 J	<0.00890	<0.00890	<0.00178	<0.00445	<0.00445 C3
SB-19A	11/7/2023	4 - 5	<0.00870	<0.00870	<0.0218	<0.0218	<0.00870	<0.00435	<0.00870	<0.0113	<0.00870	<0.00870	<0.00174	<0.00435	<0.00435
SB-20	11/2/2023	2 - 3	<0.00795	<0.00795	<0.0199	<0.0199	<0.00795	<0.00397	0.00208 J	<0.0103	<0.00795	<0.00795	<0.00159	<0.00397	<0.00397
SB-20	11/2/2023	4 - 5	<0.00843	<0.00843	<0.0211	<0.0211	<0.00843	<0.00422	<0.00843	<0.0110	<0.00843	<0.00843	<0.00169	<0.00422	<0.00422
SB-21	11/2/2023	2 - 2.5	0.0103 C5	0.0223	0.00511 J	<0.0159	<0.00638	<0.00319	0.375	0.365	<0.00638	<0.00638	<0.00128	<0.00319	<0.00319
SB-21	11/2/2023	4 - 5	<0.00921	<0.00921	<0.0230	<0.0230	<0.00921	<0.00461	0.00392 J	0.00462 J	<0.00921	<0.00921	<0.00184	<0.00461	<0.00461
SB-21	11/3/2023	8 - 9.5	0.0624	<0.00981	0.228	<0.0245	<0.00981	<0.00490	0.0396	0.0255	<0.00981	<0.00981	<0.00196	<0.00490	<0.00490
SB-21	11/3/2023	9.5 - 11.3	0.0702	<0.0107	0.118	<0.0267	<0.0107	<0.00533	0.022	0.0606	<0.0107	<0.0107	<0.00213	<0.00533	<0.00533
SB-21*	11/3/2023	9.5 - 11.3	0.298	<0.0157	0.603	<0.0393	0.0315	<0.00788	0.128	0.256	<0.0157	<0.0157	<0.00315	<0.00788	<0.00788
SB-22	11/2/2023	2 - 3	<0.00610	<0.00610	<0.0152	<0.0152	<0.00610	<0.00305	0.00826	0.00782 J	<0.00610	<0.00610	<0.00122	<0.00305	<0.00305
SB-22	11/2/2023	4 - 5	<0.00645	<0.00645	<0.0161	<0.0161	<0.00645	<0.00322	<0.00645	<0.00838	<0.00645	<0.00645	<0.00129	<0.00322	<0.00322
SB-22	11/3/2023	6.5 - 9.5	<0.00960	<0.00960	<0.0240	<0.0240	<0.00960	<0.00480	0.0132	0.00486 J	<0.00960	<0.00960	<0.00192	<0.00480	<0.00480
SB-22*	11/3/2023	6.5 - 9.5	<0.0106	0.00696 J	<0.0265	<0.0265	<0.0106	<0.00531	0.0115	0.00947 J	<0.0106	<0.0106	<0.00212	<0.00531	<0.00531
SB-22	11/3/2023	11 - 12.5	0.118	0.0181	0.0597	<0.0269	0.0101 J	<0.00537	0.0999	0.239	<0.0107	<0.0107	<0.00215	<0.00537	<0.00537
SB-23	11/1/2023	2 - 3	0.00307 J	<0.00673	<0.0168	<0.0168	<0.00673	<0.00337	0.00420 J	0.00891	<0.00673	<0.00673	<0.00135	<0.00337	<0.00337
SB-23	11/1/2023	4 - 5	0.0537	0.011	0.0448	<0.0197	0.00411 J	<0.00393	0.0206	0.0706	<0.00787	<0.00787	<0.00157	<0.00393	<0.00393
SB-23	11/4/2023	6.5 - 8	1.88	0.0135	2.5	<0.0238 C3	0.192	<0.00476	0.0236	0.029	<0.00953	<0.00953	<0.00191	<0.00476	<0.00476
SB-23	11/4/2023	11 - 12.5	0.00867 J	<0.0110	0.0122 J	<0.0276 C3	<0.0110	<0.00551	0.0549	0.127	<0.0110	<0.0110	<0.00221	<0.00551	<0.00551
SB-23	11/4/2023	17 - 18.5	0.00256 J	<0.0118	<0.0296	<0.0296 C3	<0.0118	<0.00592	<0.0118	<0.0154	<0.0118	<0.0118	<0.00237	<0.00592	<0.00592
SB-24	10/31/2023	1.5 - 2	0.00422 J	<0.00701	<0.0175	<0.0175	<0.00701	<0.00350	0.00590 J	0.0171	<0.00701	<0.00701	<0.00140	<0.00350	<0.00350
SB-24	10/31/2023	4 - 5	0.0163	0.0329	0.0103 J	<0.0294	<0.0117	<0.00587	0.0352	0.106	<0.0117	<0.0117	<0.00235	<0.00587	<0.00587
SB-24	10/31/2023	8 - 9.5	0.0113 J	<0.0171	<0.0428	<0.0428	<0.0171	<0.00855	0.0277	0.0132 J	<0.0171	<0.0171	<0.00342	<0.00855	<0.00855
SB-24	10/31/2023	11 - 12.5	0.00457 J	0.0142 J	<0.0587	<0.0587	<0.0234	<0.0117	0.0665	0.00433 J	<0.0234	<0.0234	<0.00469	<0.0117	**<0.0117**
SB-24	10/31/2023	15.5 - 17	<0.0137	<0.0137	<0.0343	<0.0343	<0.0137	<0.00686	0.00433 J	<0.0178	<0.0137	<0.0137	<0.00274	<0.00686	<0.00686
SB-25	11/7/2023	2 - 3	<0.00957	0.00560 J	<0.0240	<0.0240	<0.00957	<0.00479	<0.00957	<0.0124	<0.00957	<0.00957	<0.00191	<0.00479	<0.00479
SB-25	11/7/2023	4 - 5	0.00672 J	<0.0103	0.00645 J	<0.0256	<0.0103	0.00850 C5	<0.0103	<0.0133	<0.0103	<0.0103	<0.00205	<0.00513	<0.00513
SB-25	11/7/2023	8 - 8.8	<0.00719	<0.00719	<0.0180	<0.0180	<0.00719	<0.00359	<0.00719	0.00134 J	<0.00719	<0.00719	<0.00144	<0.00359	<0.00359 C3

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (Freon 11)	Vinyl Chloride
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	**130,000**	--	**1,000**	**88,000**	**25,000**	**23,000**	--	**51**	**130,000**	**4**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	**56,000**	--	**1,800**	**28,000**	**20,000**	**7,100**	--	**130**	**69,000**	**34**
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	**800**	--	**1.9**	**490**	**100**	**51**	--	**0.087**	**280**	**0.01**
SB-25	11/7/2023	11 - 12	<0.00696	<0.00696	0.17	<0.0174	0.0292	<0.00348	0.0152	<0.00905	<0.00696	<0.00696	<0.00139	<0.00348	<0.00348 C3
SB-26	11/7/2023	2 - 3	0.0670	<0.00722	0.0181 J	<0.0181	<0.00722	<0.00361	0.00202 J	0.00149 J	<0.00722	<0.00722	<0.00144	<0.00361	<0.00361
SB-26	11/7/2023	4 - 5	<0.00679	<0.00679	<0.0170	<0.0170	<0.00679	<0.00339	<0.00679	0.00125 J	<0.00679	<0.00679	<0.00136	<0.00339	<0.00339
SB-26	11/7/2023	8 - 9	<0.0129	<0.0129	<0.0322	<0.0322	<0.0129	<0.00644	0.00357 J	0.00233 J	<0.0129	<0.0129	<0.00257	<0.00644	<0.00644 C3
SB-26	11/7/2023	11 - 12	0.0748	<0.00658	0.1	<0.0165	0.00711	<0.00329	0.00337 J	0.00449 J	<0.00658	<0.00658	<0.00132	<0.00329	<0.00329 C3
SB-27	11/7/2023	2 - 3	<0.00787	<0.00787	<0.0197	<0.0197	<0.00787	<0.00393	0.00216 J	0.00358 J	<0.00787	<0.00787	<0.00157	<0.00393	<0.00393
SB-27	11/7/2023	4 - 5	<0.0101	0.00706 J	<0.0252	<0.0252	<0.0101	0.00353 J	0.00439 J	<0.0131	<0.0101	<0.0101	<0.00202	<0.00504	<0.00504
SB-27	11/7/2023	8 - 9.1	<0.0127	<0.0127	0.00911 J	<0.0318	<0.0127	<0.00637	0.00478 J	0.018	<0.0127	<0.0127	<0.00255	<0.00637	<0.00637
SB-27	11/7/2023	9.5 - 10.2	0.0501	<0.00710	0.288	<0.0177	0.0203	<0.00355	<0.00710	0.00869 J	<0.00710	<0.00710	<0.00142	<0.00355	<0.00355
SB-28	11/6/2023	2 - 3	<0.0145	<0.0145	<0.0361	<0.0361	<0.0145	<0.00723	<0.0145	<0.0188	<0.0145	<0.0145	<0.00289	<0.00723	<0.00723
SB-28	11/6/2023	4 - 5	0.00396 J	<0.0169	<0.0423	<0.0423	<0.0169	0.00496 J	<0.0169	0.0132 J	<0.0169	<0.0169	<0.00339	<0.00847	<0.00847
SB-28	11/7/2023	12.5 - 13.5	<0.00839	<0.00839	<0.0210	<0.0210	<0.00839	0.00542 C5	<0.00839	<0.0109	<0.00839	<0.00839	<0.00168	<0.00420	<0.00420
SB-28	11/7/2023	18.5 - 19.8	<0.00810	<0.00810	<0.0203	<0.0203	<0.00810	<0.00405	<0.00810	<0.0105	<0.00810	<0.00810	<0.00162	<0.00405	<0.00405
SB-29	11/6/2023	2 - 3	<0.00859	<0.00859	<0.0215	<0.0215	<0.00859	0.00325 J	<0.00859	<0.0112	<0.00859	<0.00859	<0.00172	<0.00430	<0.00430
SB-29	11/6/2023	4 - 5	<0.00721	<0.00721	<0.0180	<0.0180	<0.00721	0.00330 J	<0.00721	0.00401 J	<0.00721	<0.00721	<0.00144	<0.00360	<0.00360
SB-29	11/7/2023	9.5 - 10.5	0.46	0.0103	0.336	<0.0169	<0.00678	<0.00339	0.00409 J	0.00935	<0.00678	<0.00678	<0.00136	<0.00339	<0.00339
SB-29	11/7/2023	11 - 12.5	0.762	0.0073	0.271	<0.0174	<0.00695	<0.00348	0.00641 J	0.0124	<0.00695	<0.00695	<0.00139	<0.00348	<0.00348
SB-29	11/7/2023	15.5 - 17	0.0427	0.0767	<0.0181	<0.0181	<0.00726	0.00655 C5	2.34	1.84	<0.00726	<0.00726	<0.00145	<0.00363	<0.00363
T1-B1	11/1/2023	--	<0.00640	<0.00640	<0.0160	<0.0160	<0.00640	<0.00320	0.00356 J	0.00642 J	<0.00640	<0.00640	<0.00128	<0.00320	<0.00320
T1-B2	11/1/2023	--	<0.00679	<0.00679	<0.0170	<0.0170	<0.00679	<0.00340	0.00587 J	0.00689 J	<0.00679	<0.00679	<0.00136	<0.00340	<0.00340
T2-B1	11/1/2023	--	<0.00671	<0.00671	<0.0168	<0.0168	<0.00671	<0.00336	<0.00671	<0.00873	<0.00671	<0.00671	<0.00134	<0.00336	<0.00336
T2-B2	11/1/2023	--	0.00176 J	<0.00734	<0.0184	<0.0184	<0.00734	<0.00367	0.0074	0.0102	<0.00734	<0.00734	<0.00147	<0.00367	<0.00367
T2-B3	11/1/2023	--	<0.00620	<0.00620	<0.0155	<0.0155	<0.00620	<0.00310	0.00527 J	0.00574 J	<0.00620	<0.00620	<0.00124	<0.00310	<0.00310 C3
T3-B1	11/1/2023	--	<0.00703	<0.00703	<0.0176	<0.0176	<0.00703	<0.00352	0.00348 J	0.00517 J	<0.00703	<0.00703	<0.00141	<0.00352	<0.00352
T3-B2	11/1/2023	--	<0.00704	<0.00704	0.00487 J	<0.0176	<0.00704	<0.00352	0.00583 J	0.00468 J	<0.00704	<0.00704	<0.00141	<0.00352	<0.00352
T3-B3	11/1/2023	--	0.0229	<0.00610	0.0148 J	<0.0153	<0.00610	<0.00305	0.122	0.17	<0.00610	<0.00610	<0.00122	<0.00305	<0.00305 C3
T4-B1	11/1/2023	--	<0.00663	<0.00663	<0.0166	<0.0166	<0.00663	<0.00331	<0.00663	0.00447 J	<0.00663	<0.00663	<0.00133	<0.00331	<0.00331
T4-B2	11/1/2023	--	1.43	0.5	1.01	<0.369	0.0764 J	<0.0737	0.319	0.839	<0.147	<0.147	<0.0295	<0.0737	**<0.0737**
T4-B3	11/1/2023	--	0.0239	<0.00742	0.0301	<0.0186	<0.00742	<0.00371	0.160	0.172	<0.00742	<0.00742	<0.00148	<0.00371	<0.00371 C3

Table 2. Soil Analytical Data – Volatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Notes:

1. **BOLD and yellow highlighted** values exceed the RBCsw.
2. **BOLD** values are not detected greater than the laboratory reporting limit (RL) but the RL is greater than the RBCsw.
3. Analytical concentrations are presented in milligrams per kilogram (mg/kg).
4. Sample depth in feet below ground surface.

Acronyms and Abbreviations:

-- = not applicable, not available, or not analyzed

< = not detected at or greater than the laboratory method detection limit (MDL) or laboratory reporting limit (RL)

* = duplicate sample

DEQ = Oregon Department of Environmental Quality

RBC = risk-based concentration

USEPA = United States Environmental Protection Agency

Laboratory Qualifiers:

B = The same analyte is found in the associated blank.

C3 = The reported concentration is an estimate. The continuing calibration standard associated with this data responded low.Method sensitivity check is acceptable.

C5 = The reported concentration is an estimate. The continuing calibration standard associated with this data responded high.
Data are likely to show a high bias concerning the result.

J = The concentration was detected between the MDL and RL; therefore, the reported concentration is an estimate.

J3 = The associated batch quality control (QC) was outside the established QC range for precision.

J4 = The associated batch QC was outside the established QC range for accuracy.

Current Analytical Methods:

Samples analyzed by USEPA Method 8260D.

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Chloronaphthalene
			USEPA Method 8270E-SIM																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**70,000**	**--**	**350,000**	**21**	**2**	**21**	**--**	**210**	**2,100**	**2**	**30,000**	**47,000**	**21**	**23**	**--**	**23,000**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**21,000**	**--**	**110,000**	**170**	**17**	**170**	**--**	**1,700**	**17,000**	**17**	**10,000**	**14,000**	**170**	**580**	**--**	**7,500**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.34**	**--**	**--**	**--**	**--**	**--**
MW-26	11/4/2023	2 - 3	<0.00746	<0.00746	<0.00746	0.00419 J	0.00965	0.0123	0.0173	0.00378 J	0.00587 J	<0.00746	0.00796	<0.00746	0.0137	<0.0249	0.00546 J	0.0134	<0.0249	0.00596 J	<0.0249
MW-26	11/4/2023	4 - 5	0.0293	<0.00926	<0.00926	<0.00926	<0.00926	<0.00926	<0.00926	<0.00926	<0.00926	<0.00926	<0.00926	0.071	<0.00926	0.00798 J	0.0389	0.00475 J	0.0571	<0.0309	<0.0309
MW-26	11/4/2023	6.5 - 8	0.00631 J	<0.00745	<0.00745	<0.00745	<0.00745	<0.00745	<0.00745	<0.00745	<0.00745	<0.00745	<0.00745	0.0132	<0.00745	<0.0248	0.00632 J	0.00262 J	0.0125 J	<0.0248	<0.0248
MW-26	11/4/2023	12.5 - 14	0.00318 J	<0.00759	<0.00759	<0.00759	<0.00759	<0.00759	<0.00759	<0.00759	<0.00759	<0.00759	0.00436 J	0.00741 J	<0.00759	<0.0253	0.00524 J	0.00369 J	<0.0253	<0.0253	<0.0253
MW-26	11/4/2023	15.5 - 17	<0.00878	<0.00878	<0.00878	0.00331 J	<0.00878	<0.00878	<0.00878	<0.00878	<0.00878	<0.00878	0.00666 J	<0.00878	<0.00878	<0.0293	<0.00878	0.00558 J	<0.0293	<0.0293	<0.0293
MW-27	11/2/2023	2 - 3	<0.00758	<0.00758	<0.00758	0.00696 J	0.0104	0.0107	0.0103	0.00418 J	0.00726 J	<0.00758	0.0147	<0.00758	0.0113	<0.0253	0.00785	0.0164	<0.0253	<0.0253	<0.0253
MW-27	11/2/2023	4 - 5	<0.00876	<0.00876	<0.00876	<0.00876	0.00301 J	0.00339 J	0.00276 J	<0.00876	<0.00876	<0.00876	0.00469 J	<0.00876	<0.00876	<0.0292	<0.00876	0.00610 J	<0.0292	<0.0292	<0.0292
MW-27	11/4/2023	6.5 - 8	<0.00876	<0.00876	<0.00876	0.00515 J	0.00688 J	0.00739 J	0.00442 J	<0.00876	0.00610 J	<0.00876	0.00870 J	<0.00876	0.00513 J	<0.0292	0.00586 J	0.00895	<0.0292	<0.0292	<0.0292
MW-27	11/4/2023	11 - 12.5	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0414	<0.0124	<0.0124	<0.0414	<0.0414	<0.0414
MW-27	11/4/2023	15.5 - 17	<0.0155	<0.0155	<0.0155	0.00470 J	0.00612 J	0.00620 J	0.00514 J	<0.0155	<0.0155	0.00674 J	0.0105 J	<0.0155	0.00537 J	<0.0517	<0.0155	0.0109 J	<0.0517	<0.0517	<0.0517
MW-28	11/4/2023	2 - 3	0.00640 J	0.0209	0.0783	0.103	0.108	0.107	0.0595	0.047	0.0848	0.0153	0.27	0.0476	0.0695	<0.0303	0.249	0.173	<0.0303	<0.0303	<0.0303
MW-28	11/4/2023	4 - 5	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.00906	<0.0302	<0.00906	<0.00906	<0.0302	<0.0302	<0.0302
MW-28	11/4/2023	8 - 9.5	<0.00958	<0.00958	<0.00958	<0.00958	<0.00958	<0.00958	<0.00958	<0.00958	<0.00958	<0.00958	0.00616 J	<0.00958	<0.00958	<0.0319	0.00474 J	0.00474 J	<0.0319	<0.0319	<0.0319
MW-28	11/4/2023	11 - 14	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.00936	<0.0312	<0.00936	<0.00936	<0.0312	<0.0312	<0.0312
MW-28*	11/4/2023	11 - 14	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0448	<0.0134	<0.0134	<0.0448	<0.0448	<0.0448
MW-28	11/4/2023	17 - 18.5	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.00982	<0.0327	<0.00982	<0.00982	<0.0327	<0.0327	<0.0327
MW-29	11/1/2023	6.5 - 8	0.135	0.0254	0.0236	0.04	0.0554	0.0502	0.0404	0.0181	0.0332	0.00811 J	0.0748	0.203	0.0474	0.116	0.283	0.0736	0.00668 J	0.0147 J	<0.0253
MW-29	11/1/2023	11 - 14	0.0137	<0.00980	<0.00980	0.00900 J	0.0122	0.0113	0.00851 J	0.00413 J	0.00824 J	<0.00980	0.0141	0.0233	0.00981	0.0119 J	0.0327	0.0157	1.81	0.710	<0.0281
MW-29*	11/1/2023	11 - 14	0.0127	0.00448 J	0.00318 J	0.0263	0.0325	0.034	0.019	0.0112	0.024	0.00448 J	0.0304	0.0232	0.024	0.0116 J	0.0327	0.0293	0.188	0.141	<0.0327
MW-29	11/1/2023	17 - 18.5	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	0.00471 J	<0.0115	<0.0385	0.00681 J	<0.0115	0.198	0.168	<0.0261
MW-30	11/1/2023	2 - 3	<0.00744	<0.00744	<0.00744	0.00856	0.0139	0.0131	0.0099	0.00451 J	0.00791	<0.00744	0.0129	<0.00744	0.0119	0.00662 J	0.00819	0.0131	0.0385 J	0.0329 J	<0.0385
MW-30*	11/1/2023	2 - 3	<0.00759	0.00366 J	0.00407 J	0.019	0.0243	0.0223	0.0172	0.00763	0.0185	0.00319 J	0.0324	0.00331 J	0.0195	0.00823 J	0.0169	0.0336	<0.0248	0.0106 J	<0.0248
MW-30	11/1/2023	4 - 5	<0.00695	<0.00695	<0.00695	0.00205 J	0.00325 J	0.00315 J	0.00939	<0.00695	<0.00695	<0.00695	0.00370 J	<0.00695	0.00416 J	<0.0232	0.00341 J	0.00389 J	<0.0232	<0.0232	<0.0232
MW-30	11/2/2023	6.5 - 8	0.00415 J	<0.00751	<0.00751	<0.00751	<0.00751	<0.00751	<0.00751	<0.00751	<0.00751	<0.00751	<0.00751	0.0111	<0.00751	0.00924 J	0.00562 J	<0.00751	0.0367	0.0695	<0.0250
MW-30	11/2/2023	11 - 14	<0.00969	<0.00969	<0.00969	0.00515 J	0.0115	0.0125	0.00953 J	0.00422 J	0.00657 J	<0.00969	0.0113	0.00451 J	0.00987	0.0197 J	0.0105	0.0138	0.0132 J	0.0133 J	<0.0323
MW-30*	11/2/2023	11 - 14	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	0.00343 J	<0.0120	<0.0120	<0.0120	<0.0120	0.00505 J	<0.0120	<0.0120	0.0221 J	0.00736 J	0.00565 J	0.00930 J	0.0174 J	<0.0399
MW-30	11/2/2023	15.5 - 17	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	0.0106 J	<0.0115	<0.0115	<0.0383	0.00983 J	<0.0383

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Chloronaphthalene
			USEPA Method 8270E-SIM																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			70,000	--	350,000	21	2	21	--	210	2,100	2	30,000	47,000	21	23	--	23,000	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			21,000	--	110,000	170	17	170	--	1,700	17,000	17	10,000	14,000	170	580	--	7,500	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	--	--	--	--	--
MW-31	10/31/2023	2 - 2.5	<0.00693	0.00506 J	0.00420 J	0.0407	0.0687	0.0656	0.0471	0.0271	0.0425	0.0112	0.0395	0.00583 J	0.0569	0.00684 J	0.0232	0.0434	0.00817 J	0.0133 J	<0.0231
MW-31	10/31/2023	4 - 5	0.0725	<0.00891	0.151	0.00362 J	<0.00891	0.00316 J	0.00267 J	<0.00891	<0.00891	<0.00891	0.0307	0.263	<0.00891	0.0502	0.543	0.0438	0.582	0.285	<0.0297
MW-31	10/31/2023	6.5 - 8	0.0493	<0.00883	0.0394	0.00521 J	0.00627 J	0.00549 J	0.00440 J	<0.00883	0.00568 J	<0.00883	0.011	0.152	0.00462 J	0.0290 J	0.216	0.0113	0.545	<0.0294	<0.0294
MW-31	10/31/2023	12.5 - 14	0.00991	<0.00948	<0.00948	0.0136	0.00940 J	0.0108	0.00472 J	<0.00948	0.0151	<0.00948	0.0232	0.0303	0.00757 J	0.0115 J	0.0675	0.0273	0.0921	<0.0316	<0.0316
MW-32	11/6/2023	2 - 3	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.00796	<0.0265	0.00307 J	<0.00796	<0.0265	<0.0265	<0.0265
MW-32	11/6/2023	4 - 5	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.00812	<0.0271	0.00360 B J	<0.00812	<0.0271	<0.0271	<0.0271
MW-32	11/6/2023	7.5 - 9.5	<0.00917	0.00571 J	0.00674 J	0.0652	0.0645	0.118	0.0744	0.0373	0.101	0.0125	0.0712	<0.00917	0.0944	<0.0306	0.0373 B	0.458	<0.0306	<0.0306	<0.0306
MW-32	11/6/2023	12.5 - 14	<0.00961	<0.00961	<0.00961	<0.00961	<0.00961	<0.00961	<0.00961	<0.00961	<0.00961	<0.00961	0.00708 J	0.00357 J	<0.00961	<0.0320	0.0121 B	0.00599 J	<0.0320	<0.0320	<0.0320
MW-32	11/6/2023	16 - 18.5	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.00775	<0.0258	<0.00775	<0.00775	<0.0258	<0.0258	<0.0258
MW-33	11/6/2023	2 - 3	<0.00710	<0.00710	<0.00710	0.00493 J	0.00613 J	0.00701 J	0.00645 J	0.00339 J	0.00721	<0.00710	0.0121	<0.00710	0.00535 J	<0.0237	0.00530 J	0.014	<0.0237	<0.0237	<0.0237
MW-33	11/6/2023	4 - 5	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.00781	<0.0260	<0.00781	<0.00781	<0.0260	<0.0260	<0.0260
MW-33	11/6/2023	6.5 - 8	0.00343 J	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	0.0216 J	0.00469 J	<0.00765	0.00578 J	0.0193 J	<0.0255
MW-33	11/6/2023	12.5 - 14	0.00304 J	<0.00851	<0.00851	<0.00851	<0.00851	0.00272 J	0.00384 J	<0.00851	<0.00851	<0.00851	0.0408	<0.00851	0.00318 J	<0.0284	<0.00851	<0.00851	<0.0284	<0.0284	<0.0284
MW-33	11/6/2023	15.5 - 17	<0.00780	<0.00780	<0.00780	<0.00780	<0.00780	0.00351 J	0.00447 J	<0.00780	<0.00780	<0.00780	0.00326 J	<0.00780	<0.00780	<0.0260	0.0123	0.0207	<0.0260	<0.0260	<0.0260
MW-34	11/6/2023	2 - 3	<0.00744	<0.00744	<0.00744	0.00426 J	0.00386 J	0.00704 J	0.00467 J	0.00314 J	0.00617 J	<0.00744	0.00455 J	<0.00744	0.00439 J	<0.0248	<0.00744	0.00465 J	<0.0248	<0.0248	<0.0248
MW-34	11/6/2023	4 - 5	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.00714	<0.0238	<0.00714	<0.00714	<0.0238	<0.0238	<0.0238
MW-34	11/6/2023	8 - 9	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.00754	<0.0251	<0.00754	<0.00754	<0.0251	<0.0251	<0.0251
MW-34	11/6/2023	12.5 - 14	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115	<0.0382	0.00546 B J	<0.0115	<0.0382	<0.0382	<0.0382
MW-34	11/6/2023	17 - 18.5	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.00790	<0.0263	<0.00790	<0.00790	<0.0263	<0.0263	<0.0263
SB-17	11/2/2023	1.5 - 2.5	<0.00630	<0.00630	0.00261 J	<0.00630	0.00198 J	0.00355 J	0.00315 J	<0.00630	<0.00630	<0.00630	0.00271 J	<0.00630	0.00299 J	<0.0210	<0.00630	0.00274 J	<0.0223	0.00860 J	<0.0223
SB-17	11/2/2023	4 - 5	<0.00669	<0.00669	0.00719	0.0191	0.0241	0.0214	0.0198	0.00772	0.0225	0.00339 J	0.0312	<0.00669	0.0215	0.00550 J	0.0253	0.0319	<0.0221	<0.0221	<0.0221
SB-17*	11/2/2023	4 - 5	<0.00662	<0.00662	0.00594 J	<0.00662	0.0778	0.0626	0.0649	0.0255	0.0455	0.00952	0.0575	<0.00662	0.0654	0.00566 J	0.0201	0.0684	<0.0210	<0.0210	<0.0210
SB-18	11/2/2023	2 - 4	0.00681 J	0.00381 J	0.0104	0.0257	0.0415	0.0366	0.0464	0.0141	0.0261	0.00792	0.0256	0.0105	0.0499	0.162	0.0678	0.0303	0.133	0.440	<0.0235
SB-18*	11/2/2023	2 - 4	0.00441 J	0.00300 J	0.00699	0.015	0.0237	0.0223	0.0317	0.00798	0.0129	0.00449 J	0.0151	0.00565 J	0.0325	0.125	0.0442	0.0168	0.0921	0.344	<0.0232
SB-18	11/2/2023	4 - 5	0.0121	0.00604 J	0.0297	0.177	0.321	0.243	0.208	0.1	0.146	0.0423	0.199	0.0138	0.249	0.0218 J	0.12	0.216	0.0181 J	0.0430	<0.0225
SB-18	11/2/2023	6.5 - 7.5	<0.00725	<0.00725	0.00374 J	0.0192	0.0222	0.0195	0.0179	0.00706 J	0.0174	0.00347 J	0.0216	0.00346 J	0.0214	0.0308	0.0174	0.0222	0.0228 J	0.0823	<0.0242
SB-18	11/2/2023	9.5 - 10.5	0.142	<0.00736	0.113	0.00912	0.00498 J	0.00670 J	0.00306 J	<0.00736	0.0107	<0.00736	0.0525	0.384	0.00334 J	0.102	0.312	0.0526	<0.0245	<0.0245	<0.0245
SB-18A	11/7/2023	2 - 3	<0.00682	0.00781	0.0123	0.00751	0.0085	0.00882	0.0625	0.00311 J	0.00808	<0.00682	0.00750 B	<0.00682	0.0208	0.0113 J	0.0149 B	0.00704	0.00957 J	0.0306	<0.0227
SB-18A	11/7/2023	4 - 5	0.00662 J	0.00445 J	0.021	0.174	0.279	0.215	0.182	0.0908	0.179	0.042	0.17	0.00451 J	0.223	0.0146 J	0.0726	0.191	0.0110 J	0.0238	<0.0225

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Chloronaphthalene
			USEPA Method 8270E-SIM																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**70,000**	**--**	**350,000**	**21**	**2**	**21**	**--**	**210**	**2,100**	**2**	**30,000**	**47,000**	**21**	**23**	**--**	**23,000**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**21,000**	**--**	**110,000**	**170**	**17**	**170**	**--**	**1,700**	**17,000**	**17**	**10,000**	**14,000**	**170**	**580**	**--**	**7,500**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.34**	**--**	**--**	**--**	**--**	**--**
SB-19	11/2/2023	2 - 3	0.137	0.114	0.644	3.97	**6.92**	5.55	4.19	2.41	4.07	1.13	3.69	0.127	5.08	0.222 J	1.78	3.81	0.0781 J	0.0929 J	<0.296
SB-19	11/2/2023	4 - 5	<0.00893	<0.00893	<0.00893	0.00723 J	0.012	0.0106	0.00747 J	0.00455 J	0.00774 J	<0.00893	0.00918	<0.00893	0.00848 J	0.0380 B	0.00805 J	0.00978	0.0102 J	0.0259 J	<0.0298
SB-19	11/2/2023	9.5 - 10.2	0.246	<0.00685	<0.00685	0.00486 J	0.00615 J	0.00572 J	0.00517 J	<0.00685	0.00649 J	<0.00685	0.0171	0.526	0.00460 J	0.153 B	0.566	0.0385	2.05	<0.0228	<0.0228
SB-19A	11/7/2023	2 - 3	<0.00816	<0.00816	0.0104	0.0741	0.136	0.113	0.0879	0.0441	0.079	0.0224	0.0709	<0.00816	0.108	<0.0272	0.0389 B	0.0834	<0.0272	<0.0272	<0.0272
SB-19A*	11/7/2023	2 - 3	0.0118	<0.00828	0.0502	0.287	0.497	0.36	0.309	0.16	0.281	0.0865	0.239	0.00764 J	0.424	0.00774 J	0.132	0.275	<0.0276	<0.0276	<0.0276
SB-19A	11/7/2023	4 - 5	<0.00810	<0.00810	0.00402 J	0.0201	0.0355	0.0278	0.0205	0.0128	0.0219	0.00553 J	0.0210 B	<0.00810	0.0244	<0.0270	0.0151 B	0.0246	<0.0270	<0.0270	<0.0270
SB-20	11/2/2023	2 - 3	0.00569 J	0.00651 J	0.0394	0.224	0.277	0.226	0.148	0.1	0.228	0.0366	0.231	0.00495 J	0.188	0.00906 J	0.112	0.238	<0.0256	0.00642 J	<0.0256
SB-20	11/2/2023	4 - 5	<0.00805	<0.00805	<0.00805	<0.00805	<0.00805	<0.00805	<0.00805	<0.00805	<0.00805	<0.00805	0.00639 J	<0.00805	<0.00805	<0.0268	0.00976	0.00666 J	<0.0268	<0.0268	<0.0268
SB-21	11/2/2023	2 - 2.5	0.0375	0.0273	0.153	0.847	1.47	1.29	0.915	0.49	0.781	0.23	0.853	0.0252	1.02	0.0480 B	0.399	0.962	0.0346	0.0378	<0.0227
SB-21	11/2/2023	4 - 5	<0.00832	<0.00832	0.00402 J	0.0315	0.0491	0.0468	0.0324	0.0172	0.0322	0.00635 J	0.0279	<0.00832	0.0367	<0.0277	0.0126	0.0295	<0.0277	<0.0277	<0.0277
SB-21	11/3/2023	8 - 9.5	0.0557	<0.00854	<0.00854	0.0609	0.0991	0.0846	0.0642	0.0253	0.0729	0.0123	0.0891	0.177	0.0756	0.0749	0.292	0.115	0.0101 J	<0.0285	<0.0285
SB-21	11/3/2023	9.5 - 11.3	0.0185	<0.00817	<0.00817	0.0629	0.0541	0.0542	0.0244	0.0181	0.0459	0.00629 J	0.0806	0.0697	0.0325	0.0354	0.0878	0.0741	0.00647 J	<0.0272	<0.0272
SB-21*	11/3/2023	9.5 - 11.3	0.018	<0.00850	<0.00850	0.00886	0.01	0.0107	0.00610 J	0.00341 J	0.0136	<0.00850	0.0174	0.0688	0.00641 J	0.034	0.0776	0.0244	0.0104 J	<0.0283	<0.0283
SB-22	11/2/2023	2 - 3	0.00886	0.0418	0.0626	0.274	0.424	0.339	0.269	0.146	0.282	0.0649	0.332	0.0158	0.306	0.0194 J	0.205	0.37	0.00856 J	0.0137 J	<0.0221
SB-22	11/2/2023	4 - 5	<0.00675	<0.00675	<0.00675	0.00547 J	0.00677	0.00716	0.0072	<0.00675	0.00519 J	<0.00675	0.00691	<0.00675	0.00621 J	0.00466 J	0.00869	0.00918	<0.0225	0.00558 J	<0.0225
SB-22	11/3/2023	6.5 - 9.5	<0.00851	<0.00851	<0.00851	<0.00851	<0.00851	0.00254 J	<0.00851	<0.00851	<0.00851	<0.00851	0.00322 J	<0.00851	<0.00851	<0.0284	<0.00851	0.00364 J	<0.0284	<0.0284	<0.0284
SB-22*	11/3/2023	6.5 - 9.5	<0.00899	<0.00899	<0.00899	0.00451 J	0.00469 J	0.00499 J	0.00334 J	<0.00899	0.00369 J	<0.00899	0.00664 J	<0.00899	0.00394 J	<0.0300	<0.00899	0.00667 J	<0.0300	<0.0300	<0.0300
SB-22	11/3/2023	11 - 12.5	<0.00921	<0.00921	<0.00921	0.0178	0.0405	0.0376	0.0401	0.0125	0.0217	0.00645 J	0.0252	0.00756 J	0.045	0.0189 J	0.0221	0.0267	<0.0307	0.00769 J	<0.0307
SB-23	11/4/2023	11 - 12.5	0.0142	0.00625 J	0.00548 J	0.00761 J	0.013	0.0153	0.0149	0.00556 J	0.0107	<0.00961	0.0285	0.0263	0.0132	0.0775	0.0372	0.0285	<0.0233	<0.0233	<0.0233
SB-23	11/4/2023	17 - 18.5	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.00989	<0.0330	<0.00989	<0.00989	0.284	0.215	<0.0251
SB-23	11/1/2023	2 - 3	<0.00699	<0.00699	<0.00699	0.00383 J	0.00590 J	0.00585 J	0.00566 J	<0.00699	0.00397 J	<0.00699	0.00665 J	<0.00699	0.00618 J	<0.0233	0.00457 J	0.00705	0.190	<0.0287	<0.0287
SB-23	11/1/2023	4 - 5	0.0372	<0.00752	0.0283	0.0168	0.0246	0.0262	0.0284	0.00734 J	0.0182	0.00545 J	0.0274	0.0808	0.0243	0.0903	0.137	0.042	0.106	0.0200 J	<0.0320
SB-23	11/4/2023	6.5 - 8	0.0113	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	0.0332	<0.00862	0.0119 J	0.0353	<0.00862	<0.0330	<0.0330	<0.0330
SB-24	10/31/2023	1.5 - 2	<0.00717	0.00962	0.00906	0.0535	0.0796 J3	0.0762	0.0471 J3 J5	0.0252	0.0538	0.0111	0.0950 J6	0.00595 J	0.0569 J3 J5	0.00791 J	0.0353	0.133 J6	<0.0239	0.0123 J	<0.0239
SB-24	10/31/2023	11 - 12.5	<0.0156	<0.0156	<0.0156	0.0455	0.0512	0.045	0.0183	0.0176	0.0385	0.00577 J	0.0437	<0.0156	0.0301	<0.0520	0.0121 J	0.0387	0.537	0.874	<0.647
SB-24	10/31/2023	4 - 5	0.127 J	<0.194	<0.00971	0.131	0.183	0.165	0.109	0.0571	0.125	0.0262	0.269	0.324	0.128	0.228	0.977	0.286	0.0283 J	0.0319 J	<0.0429
SB-24	10/31/2023	8 - 9.5	<0.0129	<0.0129	<0.0129	0.00980 J	0.0108 J	0.00960 J	0.00652 J	<0.0129	0.00928 J	<0.0129	0.0161	0.00973 J	0.00883 J	<0.0429	0.0257	0.0181	<0.0520	<0.0520	<0.0520
SB-24	10/31/2023	15.5 - 17	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0110	<0.0365	<0.0110	<0.0110	<0.0365	<0.0365	<0.0365

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Chloronaphthalene
			USEPA Method 8270E-SIM																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			70,000	--	350,000	21	2	21	--	210	2,100	2	30,000	47,000	21	23	--	23,000	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			21,000	--	110,000	170	17	170	--	1,700	17,000	17	10,000	14,000	170	580	--	7,500	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	--	--	--	--	--
SB-25	11/7/2023	2 - 3	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845	0.00403 J	<0.00845	<0.00845	<0.0282	0.00529 B J	<0.00845	<0.0282	<0.0282	<0.0282
SB-25	11/7/2023	4 - 5	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	<0.00847	0.00826 J	0.00439 J	<0.00847	0.0716	0.0116 B	0.00524 J	<0.0282	0.0128 J	<0.0282
SB-25	11/7/2023	8 - 8.8	<0.00708	0.0226	0.00342 J	0.0419	0.0601	0.0642	0.0362	0.0234	0.0666	0.00769	0.0875	0.00283 J	0.0482	0.00669 J	0.0460 B	0.0992	<0.0236	<0.0236	<0.0236
SB-25	11/7/2023	11 - 12	0.028	<0.00703	<0.00703	0.00808	0.00544 J	0.00706	0.00475 J	<0.00703	0.0151	0.00265 J	0.0165 B	0.103	0.00369 J	<0.0234	0.0476 B	0.0223	<0.0234	<0.0234	<0.0234
SB-26	11/7/2023	2 - 3	<0.00717	<0.00717	<0.00717	0.00818	0.0102	0.0107	0.0125	0.00380 J	0.0128	0.00219 J	0.0145 B	<0.00717	0.0115	<0.0239	0.00929 B	0.0145	<0.0239	<0.0239	<0.0239
SB-26	11/7/2023	4 - 5	<0.00689	<0.00689	<0.00689	0.00358 J	0.00507 J	0.00502 J	0.00934	<0.00689	0.00378 J	<0.00689	0.00752 B	<0.00689	0.00541 J	<0.0230	0.00732 B	0.00705	<0.0230	<0.0230	<0.0230
SB-26	11/7/2023	8 - 9	<0.00679	<0.00679	<0.00679	<0.00679	<0.00679	<0.00679	0.0103	<0.00679	<0.00679	<0.00679	0.00303 B J	<0.00679	<0.00679	<0.0226	0.00626 B J	<0.00679	<0.0226	<0.0226	<0.0226
SB-26	11/7/2023	11 - 12	0.0381	<0.00680	<0.00680	0.00847	0.00385 J	0.00498 J	0.00284 J	<0.00680	0.016	0.00227 J	0.0147 B	0.109	<0.00680	<0.0227	0.215	0.0202	<0.0227	<0.0227	<0.0227
SB-27	11/7/2023	2 - 3	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.00765	<0.0255	0.00317 B J	<0.00765	<0.0255	<0.0255	<0.0255
SB-27	11/7/2023	4 - 5	<0.00899	<0.00899	0.00418 J	0.0267	0.0262	0.0265	0.0117	0.0113	0.0262	0.00385 J	0.0397	<0.00899	0.0154	<0.0300	0.0187 B	0.0396	<0.0300	<0.0300	<0.0300
SB-27	11/7/2023	8 - 9.1	<0.00682	<0.00682	<0.00682	<0.00682	<0.00682	<0.00682	0.00436 J	<0.00682	<0.00682	<0.00682	0.00498 B J	<0.00682	<0.00682	<0.0227	0.00576 B J	0.00414 J	<0.0227	<0.0227	<0.0227
SB-27	11/7/2023	9.5 - 10.2	0.0388	<0.00686	<0.00686	0.0159	<0.00686	0.0101	0.00561 J	<0.00686	0.017	0.00424 J	0.0261 B	0.118	<0.00686	<0.0229	0.217	0.0359	<0.0229	<0.0229	<0.0229
SB-28	11/6/2023	2 - 3	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.00727	<0.0242	<0.00727	<0.00727	<0.0242	<0.0242	<0.0242
SB-28	11/6/2023	4 - 5	<0.00797	<0.00797	<0.00797	0.00248 J	0.00308 J	0.00406 J	0.00574 J	<0.00797	0.00377 J	<0.00797	0.00644 J	<0.00797	0.00454 J	<0.0266	0.00777 B J	0.00607 J	<0.0266	<0.0266	<0.0266
SB-28	11/7/2023	12.5 - 13.5	<0.00776	<0.00776	<0.00776	<0.00776	<0.00776	<0.00776	<0.00776	<0.00776	<0.00776	<0.00776	0.00370 J	<0.00776	<0.00776	<0.0259	0.00528 B J	<0.00776	<0.0259	<0.0259	<0.0259
SB-28	11/7/2023	18.5 - 19.8	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.00768	<0.0256	0.00353 B J	<0.00768	<0.0256	<0.0256	<0.0256
SB-29	11/6/2023	45325.0	0.00766 J	<0.00813	<0.00813	0.0178	0.0222	0.0305	0.0111	0.0131	0.037	0.00278 J	0.0964	0.00466 J	<0.00813	0.00850 J	0.0893	0.072	0.00669 J	0.00725 J	<0.0271
SB-29	11/6/2023	4 - 5	<0.00724	<0.00724	<0.00724	0.00347 J	0.00457 J	0.00492 J	0.00531 J	<0.00724	0.00344 J	<0.00724	0.0084	<0.00724	0.00465 J	<0.0241	0.00569 B J	0.00775	<0.0241	<0.0241	<0.0241
SB-29	11/7/2023	9.5 - 10.5	0.00515 J	0.00382 J	0.00395 J	0.00399 J	0.00264 J	0.00230 J	0.00338 J	<0.00692	0.00348 J	<0.00692	0.00815	0.00696	<0.00692	<0.0231	0.0156 B	0.00867	0.0104 J	0.00537 J	<0.0231
SB-29	11/7/2023	11 - 12.5	0.00432 J	0.00288 J	0.00879	0.00322 J	<0.00700	<0.00700	<0.00700	<0.00700	0.00462 J	<0.00700	0.00886	0.00764	<0.00700	0.00531 J	0.0142 B	0.00734	<0.0233	<0.0233	<0.0233
SB-29	11/7/2023	15.5 - 17	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	<0.00734	0.00648 J	<0.00734	<0.00734	<0.0245	0.00933 B	0.00490 J	<0.0245	<0.0245	<0.0245
T1-B1	11/1/2023	--	<0.00676	0.00627 J	0.00789	0.0283	0.0366	0.0484	0.0304	0.0149	0.0317	0.00639 J	0.0544	<0.00676	0.0354	0.00462 J	0.0243	0.0462	<0.0225	0.00797 J	<0.0225
T1-B2	11/1/2023	--	0.013	0.00746	0.0223	0.0415	0.042	0.0481	0.03	0.0189	0.0712	0.00703	0.0976	0.00811	0.0345	<0.0232	0.0579	0.0848	<0.0232	<0.0232	<0.0232
T2-B1	11/1/2023	--	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.00666	<0.0222	<0.00666	<0.00666	<0.0222	<0.0222	<0.0222
T2-B2	11/1/2023	--	<0.00692	0.00446 J	0.00417 J	0.0106	0.0109	0.0179	0.0123	0.00535 J	0.0154	0.00264 J	0.0636	<0.00692	0.0106	<0.0231	0.00861	0.0452	<0.0231	<0.0231	<0.0231
T2-B3	11/1/2023	--	<0.00665	0.00352 J	0.00576 J	0.0203	0.0225	0.0261	0.0213	0.00827	0.0268	0.00503 J	0.0455	<0.00665	<0.00665	<0.0222	0.0169	0.0358	<0.0222	<0.0222	<0.0222
T3-B1	11/1/2023	--	<0.00636	0.00637	0.00862	0.034	0.0404	0.0499	0.0373	0.0163	0.0368	0.00709	0.0497	<0.00636	0.0368	<0.0212	0.0163	0.0442	<0.0212	0.00468 J	<0.0212
T3-B2	11/1/2023	--	0.00366 J	<0.00705	0.019	0.0915	0.112	0.0952	0.0758	0.0327	0.0754	0.0123	0.148	0.00684 J	0.0811	0.0133 J	0.06	0.16	0.00771 J	0.0146 J	<0.0235
T3-B3	11/1/2023	--	0.0135	0.0408	0.0812	0.191	0.187	0.178	0.154	0.0609	0.173	0.0235	0.346	0.0307	0.165	0.0344	0.187	0.339	0.0213 J	0.0365	<0.0220
T4-B1	11/1/2023	--	<0.00690	<0.00690	0.00468 J	0.00741	0.00872	0.0142	0.00764	0.00474 J	0.00816	<0.00690	0.0155	<0.00690	0.00799	<0.0230	0.0114	0.0123	<0.0230	<0.0230	<0.0230
T4-B2	11/1/2023	--	0.1	<0.00735	<0.00735	0.207	0.234	0.214	0.183	0.069	0.192	0.0254	0.312	0.274	0.173	**0.625**	0.545	0.331	1.83	0.816	<0.0245
T4-B3	11/1/2023	--	0.112	<0.00731	0.0259	0.219	0.247	0.217	0.143	0.0689	0.257	0.0311	0.37	0.23	0.157	0.337	0.547	0.354	1.18	0.415	<0.0244

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)Pyrene	Naphthalene	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	Hexachlorobutadiene	2,4,5-Trichlorophenol
			USEPA Method 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**70,000**	**--**	**350,000**	**21**	**2**	**21**	**--**	**210**	**2,100**	**2**	**30,000**	**47,000**	**21**	**23**	**--**	**23,000**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**21,000**	**--**	**110,000**	**170**	**17**	**170**	**--**	**1,700**	**17,000**	**17**	**10,000**	**14,000**	**170**	**580**	**--**	**7,500**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.34**	**--**	**--**	**--**	**--**	**--**
MW-26	11/4/2023	2 - 3	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<0.208	<2.08	<2.08	<2.08
MW-26	11/4/2023	4 - 5	0.0330 J	<0.0514	<0.0514	<0.0514	<0.0514	<0.0514	<0.0514	<0.0514	<0.0514	<0.0514	<0.0514	0.0872	<0.0514	<0.0514	0.0444 J	<0.0514	<0.514	<0.514	<0.514
MW-26	11/4/2023	6.5 - 8	0.0299 J	<0.0414	<0.0414	<0.0414	<0.0414	<0.0414	<0.0414	<0.0414	<0.0414	<0.0414	<0.0414	0.0771	<0.0414	<0.0414	0.0376 J	<0.0414	<0.414	<0.414	<0.414
MW-26	11/4/2023	12.5 - 14	0.00854 J	<0.0421	<0.0421	<0.0421	<0.0421	<0.0421	<0.0421	<0.0421	<0.0421	<0.0421	0.0138 J	0.0249 J	<0.0421	<0.0421	0.0195 J	0.0135 J	<0.421	<0.421	<0.421
MW-26	11/4/2023	15.5 - 17	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	<0.0487	0.0102 J	<0.0487	<0.0487	<0.0487	<0.0487	<0.487	<0.487	<0.487
MW-27	11/2/2023	2 - 3	<0.0421	<0.0421	<0.0421	0.0186 J	0.0253 J	0.0274 J	0.0185 J	0.00786 J	0.0171 J	<0.0421	0.0205 J	<0.0421	0.0193 J	<0.0421	0.0155 J	0.0263 J	<0.421	<0.421	<0.421
MW-27	11/2/2023	4 - 5	<0.0486	<0.0486	<0.0486	<0.0486	<0.0486	<0.0486	<0.0486	<0.0486	<0.0486	<0.0486	0.0102 J	<0.0486	<0.0486	<0.0486	<0.0486	0.0115 J	<0.486	<0.486	<0.486
MW-27	11/4/2023	6.5 - 8	<0.0486	<0.0486	<0.0486	0.0121 J	0.0161 J	0.0164 J	<0.0486	<0.0486	0.0107 J	<0.0486	0.0264 J	<0.0486	<0.0486	<0.0486	0.0190 J	0.0263 J	<0.486	<0.486	<0.486
MW-27	11/4/2023	11 - 12.5	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.0690	<0.690	<0.690	<0.690
MW-27	11/4/2023	15.5 - 17	<0.0860	<0.0860	<0.0860	0.0168 J	0.0256 J	0.0276 J	<0.0860	<0.0860	<0.0860	<0.0860	0.0245 J	<0.0860	<0.0860	<0.0860	0.0187 J	0.0222 J	<0.860	<0.860	<0.860
MW-28	11/4/2023	2 - 3	<0.0505	<0.0505	<0.0505	0.00924 J	0.0107 J	0.0137 J	<0.0505	<0.0505	<0.0505	<0.0505	0.0171 J	<0.0505	<0.0505	<0.0505	0.0119 J	0.0155 J	<0.505	<0.505	<0.505
MW-28	11/4/2023	4 - 5	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.0503	<0.503	<0.503	<0.503
MW-28	11/4/2023	8 - 9.5	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.0531	<0.531	<0.531	<0.531
MW-28	11/4/2023	11 - 14	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.0520	<0.520	<0.520	<0.520
MW-28*	11/4/2023	11 - 14	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.0745	<0.745	<0.745	<0.745
MW-28	11/4/2023	17 - 18.5	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.0545	<0.545	<0.545	<0.545
MW-29	11/1/2023	6.5 - 8	0.229	<0.0467	0.0349 J	0.12	0.16	0.191	0.111	0.0516	0.0928	0.0272 J	0.203	0.428	0.12	0.13	0.617	0.192	<0.467	<0.467	<0.421
MW-29	11/1/2023	11 - 14	0.0233 J	<0.0544	<0.0544	0.0459 J	0.0736	0.0746	0.0462 J	0.0297 J	0.0372 J	<0.0544	0.0549	0.0446 J	0.0558	0.0158 J	0.0591	0.0524 J	<0.544	<0.544	<0.467
MW-29*	11/1/2023	11 - 14	0.0357 J	<0.0434	<0.0434	0.0172 J	0.0312 J	0.0258 J	0.0173 J	<0.0434	0.0137 J	<0.0434	0.0315 J	0.058	0.0194 J	0.0167 J	0.0845	0.0390 J	<0.434	<0.434	<0.544
MW-29	11/1/2023	17 - 18.5	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	<0.0640	0.0190 J	<0.0640	<0.0640	0.0200 J	<0.0640	<0.640	<0.640	<0.434
MW-30	11/1/2023	2 - 3	<0.0413	<0.0413	<0.0413	0.0148 J	0.0371 J	0.0267 J	0.0217 J	<0.0413	0.0134 J	<0.0413	0.0233 J	<0.0413	0.0220 J	<0.0413	0.0156 J	0.0259 J	<0.413	<0.413	<0.640
MW-30*	11/1/2023	2 - 3	<0.0421	0.00825 J	0.0129 J	0.0524	0.0664	0.0782	0.0373 J	0.0243 J	0.0506	<0.0421	0.0931	0.0126 J	0.0367 J	0.0261 J	0.0692	0.11	<0.421	<0.421	<0.413
MW-30	11/1/2023	4 - 5	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.0386	<0.386	<0.386	<0.386
MW-30	11/2/2023	6.5 - 8	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	<0.0417	0.0131 J	<0.0417	<0.0417	<0.0417	<0.0417	<0.417	<0.417	<0.417
MW-30	11/2/2023	11 - 14	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	<0.0538	0.0157 J	0.0117 J	<0.0538	0.0210 J	0.0226 J	0.0170 J	<0.538	<0.538
MW-30*	11/2/2023	11 - 14	<0.0664	<0.0664	<0.0664	0.0146 J	<0.0664	0.0184 J	0.0150 J	<0.0664	0.0183 J	<0.0664	0.0391 J	0.0305 J	<0.0664	0.127	0.092	0.0425 J	<0.664	<0.664	<0.664
MW-30	11/2/2023	15.5 - 17	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.0638	<0.638	<0.638	<0.638

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)Pyrene	Naphthalene	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	Hexachlorobutadiene	2,4,5-Trichlorophenol
			USEPA Method 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**70,000**	**--**	**350,000**	**21**	**2**	**21**	**--**	**210**	**2,100**	**2**	**30,000**	**47,000**	**21**	**23**	**--**	**23,000**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**21,000**	**--**	**110,000**	**170**	**17**	**170**	**--**	**1,700**	**17,000**	**17**	**10,000**	**14,000**	**170**	**580**	**--**	**7,500**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.34**	**--**	**--**	**--**	**--**	**--**
MW-31	10/31/2023	2 - 2.5	<0.0385	<0.0385	<0.0385	0.0197 J	0.0298 J	0.0377 J	0.0293 J	0.0127 J	0.0203 J	<0.0385	0.0288 J	0.00871 J	0.0230 J	<0.0385	0.0252 J	0.0379 J	<0.385	<0.385	<0.385
MW-31	10/31/2023	4 - 5	<0.0494	<0.0494	<0.0494	<0.0494	<0.0494	<0.0494	<0.0494	<0.0494	0.0101 J	<0.0494	0.0380 J	0.278	<0.0494	<0.0494	0.395	0.0763	<0.494	<0.494	<0.494
MW-31	10/31/2023	6.5 - 8	0.19	<0.0490	<0.0490	<0.0490	<0.0490	<0.0490	<0.0490	<0.0490	<0.0490	<0.0490	0.0255 J	0.537	<0.0490	<0.0490	0.786	0.0372 J	<0.490	<0.490	<0.490
MW-31	10/31/2023	12.5 - 14	0.0875	<0.0526	<0.0526	0.0344 J	0.0322 J	0.0405 J	0.0215 J	0.0116 J	0.0460 J	<0.0526	0.0741	0.265	0.0185 J	<0.0526	0.428	0.12	<0.526	<0.526	<0.526
MW-32	11/6/2023	2 - 3	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	<0.442	<0.442	<0.442
MW-32	11/6/2023	4 - 5	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.0450	<0.450	<0.450	<0.450
MW-32	11/6/2023	7.5 - 9.5	<0.255	<0.255	<0.255	0.319	0.264	0.614	0.27	0.194 J	0.333	<0.255	0.356	<0.255	0.351	<0.255	<0.255	2.52	<2.55	<2.55	<2.55
MW-32	11/6/2023	12.5 - 14	<0.0534	<0.0534	<0.0534	<0.0534	<0.0534	0.0103 J	<0.0534	<0.0534	<0.0534	<0.0534	<0.0534	<0.0534	<0.0534	<0.0534	0.0129 J	0.0147 J	<0.534	<0.534	<0.534
MW-32	11/6/2023	16 - 18.5	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.0430	<0.430	<0.430	<0.430
MW-33	11/6/2023	2 - 3	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394	<0.394	<0.394	<0.394
MW-33	11/6/2023	4 - 5	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	0.00823 J	<0.0433	<0.0433	<0.0433	0.0103 J	<0.433	<0.433	<0.433
MW-33	11/6/2023	6.5 - 8	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.0425	<0.425	<0.425	<0.425
MW-33	11/6/2023	12.5 - 14	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<0.237	<2.37	<2.37	<2.37
MW-33	11/6/2023	15.5 - 17	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.0433	<0.433	<0.433	<0.433
MW-34	11/6/2023	2 - 3	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.0413	<0.413	<0.413	<0.413
MW-34	11/6/2023	4 - 5	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	<0.396	<0.396	<0.396
MW-34	11/6/2023	8 - 9	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.0418	<0.418	<0.418	<0.418
MW-34	11/6/2023	12.5 - 14	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.0636	<0.636	<0.636	<0.636
MW-34	11/6/2023	17 - 18.5	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.0438	<0.438	<0.438	<0.438
SB-17	11/2/2023	1.5 - 2.5	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.0349	<0.349	<0.349	<0.371
SB-17	11/2/2023	4 - 5	<0.0371	<0.0371	<0.0371	0.0163 J	0.0302 J	0.0332 J	0.0309 J	0.00979 J	0.0170 J	<0.0371	0.0239 J	<0.0371	0.0255 J	<0.0371	0.0155 J	0.0289 J	<0.371	<0.371	<0.368
SB-17*	11/2/2023	4 - 5	<0.0368	<0.0368	0.00866 J	0.074	0.167	0.145	0.147	0.0553	0.0803	0.0238 J	0.11	<0.0368	0.136	<0.0368	0.0367 J	0.139	<0.368	<0.368	<0.349
SB-18	11/2/2023	2 - 4	<0.391	<0.391	<0.391	<0.391	<0.391	0.0750 J	<0.391	<0.391	<0.391	<0.391	<0.391	<0.391	<0.391	0.113 J	<0.391	<0.391	<3.91	<3.91	<3.91
SB-18*	11/2/2023	2 - 4	<0.194	<0.194	<0.194	<0.194	0.0366 J	0.0394 J	0.0383 J	<0.194	<0.194	<0.194	<0.194	<0.194	<0.194	0.0870 J	0.0394 J	<0.194	<1.94	<1.94	<1.94
SB-18	11/2/2023	4 - 5	<0.0374	<0.0374	0.0143 J	0.0873	0.16	0.152	0.12	0.0535	0.0924	0.0233 J	0.0971	<0.0374	0.116	0.0166 J	0.0533	0.121	<0.374	<0.374	<0.374
SB-18	11/2/2023	6.5 - 7.5	<0.0403	<0.0403	<0.0403	<0.0403	0.0109 J	0.0128 J	0.0132 J	<0.0403	<0.0403	<0.0403	0.00824 J	<0.0403	0.0123 J	0.0458	0.0197 J	0.00986 J	<0.403	<0.403	<0.403
SB-18	11/2/2023	9.5 - 10.5	0.164	<0.0409	<0.0409	0.0148 J	0.00836 J	0.0173 J	<0.0409	<0.0409	0.0195 J	<0.0409	0.0707	0.452	<0.0409	<0.0409	0.415	0.112	<0.409	<0.409	<0.409
SB-18A	11/7/2023	2 - 3	<0.0379	<0.0379	0.0101 J	0.0112 J	0.0141 J	0.0181 J	0.0538	<0.0379	0.0103 J	<0.0379	0.0108 J	<0.0379	0.0216 J	0.0127 J	0.0128 J	0.0101 J	<0.379	<0.379	<0.379
SB-18A	11/7/2023	4 - 5	<0.0374	<0.0374	0.0136 J	0.085	0.156	0.147	0.136	0.0534	0.0887	0.0258 J	0.0905	<0.0374	0.138	<0.0374	0.0414	0.101	<0.374	<0.374	<0.374

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)Pyrene	Naphthalene	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	Hexachlorobutadiene	2,4,5-Trichlorophenol
			USEPA Method 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**70,000**	**--**	**350,000**	**21**	**2**	**21**	**--**	**210**	**2,100**	**2**	**30,000**	**47,000**	**21**	**23**	**--**	**23,000**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**21,000**	**--**	**110,000**	**170**	**17**	**170**	**--**	**1,700**	**17,000**	**17**	**10,000**	**14,000**	**170**	**580**	**--**	**7,500**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.34**	**--**	**--**	**--**	**--**	**--**
SB-19	11/2/2023	2 - 3	0.698 J	0.484 J	3.79	**25.3**	**44**	**43**	14	17.2	24.9	**4.59**	23.5	0.800 J	18.2	**1.14 J**	10.7	26.2	<19.7	<19.7	<19.7
SB-19	11/2/2023	4 - 5	<0.0496	<0.0496	<0.0496	0.0231 J	0.0469 J	0.0408 J	0.0323 J	0.0112 J	0.0199 J	<0.0496	0.0252 J	<0.0496	0.0356 J	<0.0496	0.0299 J	0.0274 J	<0.496	<0.496	<0.496
SB-19	11/2/2023	9.5 - 10.2	0.111	<0.0380	<0.0380	<0.0380	<0.0380	<0.0380	<0.0380	<0.0380	<0.0380	<0.0380	0.00988 J	0.207	<0.0380	<0.0380	0.235	0.0145 J	<0.380	<0.380	<0.380
SB-19A	11/7/2023	2 - 3	<0.0453	<0.0453	<0.0453	0.0529	0.0877	0.0809	0.0639	0.0326 J	0.0517	0.0148 J	0.0499	<0.0453	0.0707	<0.0453	0.0238 J	0.0582	<0.453	<0.453	<0.453
SB-19A*	11/7/2023	2 - 3	<0.0459	<0.0459	0.0142 J	0.0957	0.172	0.168	0.0836	0.0585	0.102	0.0247 J	0.094	<0.0459	0.0993	<0.0459	0.0459 J	0.108	<0.459	<0.459	<0.459
SB-19A	11/7/2023	4 - 5	<0.0449	<0.0449	<0.0449	0.0112 J	0.0120 J	0.0152 J	0.00920 J	<0.0449	<0.0449	<0.0449	0.0147 J	<0.0449	<0.0449	<0.0449	<0.0449	0.0148 J	<0.449	<0.449	<0.449
SB-20	11/2/2023	2 - 3	0.00890 J	<0.0426	0.0302 J	0.222	0.367	0.345	0.233	0.126	0.24	0.0569	0.193	<0.0426	0.262	<0.0426	0.0964	0.23	<0.426	<0.426	<0.426
SB-20	11/2/2023	4 - 5	<0.0447	<0.0447	<0.0447	<0.0447	<0.0447	<0.0447	<0.0447	<0.0447	<0.0447	<0.0447	0.0217 J	<0.0447	<0.0447	<0.0447	0.0284 J	0.0250 J	<0.447	<0.447	<0.447
SB-21	11/2/2023	2 - 2.5	<0.378	<0.378	0.0956 J	0.676	0.955	1	0.329 J	0.325 J	0.536	<0.378	0.632	<0.378	0.473	**<0.378**	0.264 J	0.573	<3.78	<3.78	<3.78
SB-21	11/2/2023	4 - 5	<0.0461	<0.0461	0.0147 J	0.0934	0.155	0.141	0.099	0.056	0.0942	0.0231 J	0.0881	<0.0461	0.106	<0.0461	0.0509	0.109	<0.461	<0.461	<0.461
SB-21	11/3/2023	8 - 9.5	0.0591	<0.0474	<0.0474	0.0406 J	0.055	0.0554	0.0339 J	<0.0474	0.0589	<0.0474	0.0645	0.252	0.0309 J	<0.0474	0.36	0.114	<0.474	<0.474	<0.474
SB-21	11/3/2023	9.5 - 11.3	0.0211 J	<0.0453	<0.0453	0.0116 J	0.0170 J	0.0159 J	<0.0453	<0.0453	0.0189 J	<0.0453	0.0248 J	0.0893	<0.0453	<0.0453	0.113	0.0306 J	<0.453	<0.453	<0.453
SB-21*	11/3/2023	9.5 - 11.3	0.0398 J	<0.0471	<0.0471	0.0268 J	0.0252 J	0.0262 J	0.0156 J	0.0101 J	0.0426 J	<0.0471	0.0476	0.17	0.0160 J	<0.0471	0.207	0.0776	<0.471	<0.471	<0.471
SB-22	11/2/2023	2 - 3	0.0815 J	2.67	0.877	1.68	**2.21**	2.44	0.888	0.735	1.73	0.110 J	7.74	0.664	0.946	**3.8**	10	9.12	<3.68	<3.68	<3.68
SB-22	11/2/2023	4 - 5	<0.0375	<0.0375	<0.0375	0.0102 J	0.0136 J	0.0272 J	0.0192 J	<0.0375	0.0176 J	<0.0375	0.0131 J	<0.0375	0.0138 J	<0.0375	0.0322 J	0.0200 J	<0.375	<0.375	<0.375
SB-22	11/3/2023	6.5 - 9.5	<0.0472	<0.0472	<0.0472	0.0129 J	<0.0472	<0.0472	<0.0472	<0.0472	<0.0472	<0.0472	0.0193 J	<0.0472	<0.0472	<0.0472	0.0201 J	0.0213 J	<0.472	<0.472	<0.472
SB-22*	11/3/2023	6.5 - 9.5	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.0499	<0.499	<0.499	<0.499
SB-22	11/3/2023	11 - 12.5	<0.0511	<0.0511	<0.0511	0.0209 J	0.0296 J	0.0338 J	0.0273 J	0.0101 J	0.0230 J	<0.0511	0.0295 J	0.0167 J	0.0316 J	<0.0511	0.0370 J	0.0381 J	<0.511	<0.511	<0.511
SB-23	11/4/2023	11 - 12.5	0.0183 J	<0.0533	<0.0533	<0.0533	<0.0533	<0.0533	<0.0533	<0.0533	<0.0533	<0.0533	<0.0533	0.0460 J	<0.0533	0.0431 J	0.0509 J	<0.0533	<0.533	<0.533	<0.388
SB-23	11/4/2023	17 - 18.5	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.0549	<0.549	<0.549	<2.09
SB-23	11/1/2023	2 - 3	<0.0388	<0.0388	<0.0388	0.0110 J	0.0179 J	0.0216 J	0.0135 J	0.00728 J	0.0125 J	<0.0388	0.0191 J	<0.0388	0.0130 J	<0.0388	0.0136 J	0.0227 J	<0.388	<0.388	<0.478
SB-23	11/1/2023	4 - 5	<0.209	<0.209	<0.209	<0.209	0.0883 J	0.0490 J	0.0501 J	<0.209	<0.209	<0.209	<0.209	0.127 J	<0.209	0.0842 J	0.187 J	<0.209	<2.09	<2.09	<0.533
SB-23	11/4/2023	6.5 - 8	0.0577	<0.0478	<0.0478	<0.0478	<0.0478	<0.0478	<0.0478	<0.0478	<0.0478	<0.0478	<0.0478	0.171	<0.0478	<0.0478	0.211	<0.0478	<0.478	<0.478	<0.549
SB-24	10/31/2023	1.5 - 2	<0.0398	<0.0398	<0.0398	0.0104 J	0.0190 J	0.0207 J	0.0190 J J3	<0.0398	0.0133 J	<0.0398 J3	0.0191 J	<0.0398	0.0186 J J3	<0.0398	0.0130 J	0.0216 J	<0.398	<0.398	<0.398
SB-24	10/31/2023	11 - 12.5	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	0.0158 J	<0.0865	<0.0865	<0.0865	<0.0865	<0.0865	<0.865	<0.865	<2.70
SB-24	10/31/2023	4 - 5	<0.270	<0.270	<0.270	0.112 J	0.139 J	0.163 J	0.0782 J	0.0495 J	0.101 J	<0.270	0.249 J	0.498	<0.270	0.252 J	1.18	0.455	<2.70	<2.70	<1.43
SB-24	10/31/2023	8 - 9.5	<0.143	<0.143	<0.143	0.0253 J	0.0362 J	0.0354 J	<0.143	<0.143	<0.143	<0.143	0.0476 J	0.0386 J	<0.143	<0.143	0.0958 J	0.0707 J	<1.43	<1.43	<0.865
SB-24	10/31/2023	15.5 - 17	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.0608	<0.608	<0.608	<0.608

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)Pyrene	Naphthalene	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	Hexachlorobutadiene	2,4,5-Trichlorophenol
			USEPA Method 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**70,000**	**--**	**350,000**	**21**	**2**	**21**	**--**	**210**	**2,100**	**2**	**30,000**	**47,000**	**21**	**23**	**--**	**23,000**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**21,000**	**--**	**110,000**	**170**	**17**	**170**	**--**	**1,700**	**17,000**	**17**	**10,000**	**14,000**	**170**	**580**	**--**	**7,500**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.34**	**--**	**--**	**--**	**--**	**--**
SB-25	11/7/2023	2 - 3	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.0469	<0.469	<0.469	<0.469
SB-25	11/7/2023	4 - 5	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.0470	<0.470	<0.470	<0.470
SB-25	11/7/2023	8 - 8.8	<0.0393	0.0150 J	<0.0393	0.0298 J	0.042	0.0527	0.0282 J	0.0197 J	0.0448	<0.0393	0.0686	<0.0393	0.0329 J	<0.0393	0.0419	0.0772	<0.393	<0.393	<0.393
SB-25	11/7/2023	11 - 12	0.0382 J	<0.0390	<0.0390	<0.0390	<0.0390	0.00979 J	<0.0390	<0.0390	0.0156 J	<0.0390	0.0177 J	0.113	<0.0390	<0.0390	0.0531	<0.0390	<0.390	<0.390	<0.390
SB-26	11/7/2023	2 - 3	<0.0795	<0.0795	<0.0795	<0.0795	0.0174 J	0.0285 J	0.0223 J	<0.0795	<0.0795	<0.0795	0.0226 J	<0.0795	0.0239 J	<0.0795	<0.0795	0.0290 J	<0.795	<0.795	<0.795
SB-26	11/7/2023	4 - 5	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.0765	<0.765	<0.765	<0.765
SB-26	11/7/2023	8 - 9	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<0.189	<1.89	<1.89	<1.89
SB-26	11/7/2023	11 - 12	0.0401	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	0.0170 J	<0.0377	0.0164 J	0.134	<0.0377	<0.0377	0.234	0.0339 J	<0.377	<0.377	<0.377
SB-27	11/7/2023	2 - 3	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.0424	<0.424	<0.424	<0.424
SB-27	11/7/2023	4 - 5	<0.0499	<0.0499	<0.0499	0.0289 J	0.0297 J	0.0533	0.0286 J	0.0162 J	0.0256 J	<0.0499	0.0373 J	<0.0499	0.0318 J	<0.0499	0.0174 J	0.0309 J	<0.499	<0.499	<0.499
SB-27	11/7/2023	8 - 9.1	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.0757	<0.757	<0.757	<0.757
SB-27	11/7/2023	9.5 - 10.2	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381	0.146 J	<0.381	**<0.381**	0.220 J	0.0909 J	<3.81	<3.81	<3.81
SB-28	11/6/2023	2 - 3	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.0404	<0.404	<0.404	<0.404
SB-28	11/6/2023	4 - 5	<0.0442	<0.0442	<0.0442	<0.0442	<0.0442	0.0108 J	0.0130 J	<0.0442	<0.0442	<0.0442	0.0105 J	<0.0442	<0.0442	0.0151 J	0.0142 J	0.0103 J	<0.442	<0.442	<0.442
SB-28	11/7/2023	12.5 - 13.5	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.0431	<0.431	<0.431	<0.431
SB-28	11/7/2023	18.5 - 19.8	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.426	<0.426	<0.426
SB-29	11/6/2023	45325.0	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.0451	<0.451	<0.451	<0.451
SB-29	11/6/2023	4 - 5	<0.0402	<0.0402	<0.0402	0.0188 J	0.0123 J	0.0211 J	0.00960 J	0.00732 J	0.0195 J	<0.0402	0.0298 J	<0.0402	<0.0402	<0.0402	0.0186 J	0.0335 J	<0.402	<0.402	<0.402
SB-29	11/7/2023	9.5 - 10.5	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	**<0.384**	<0.384	<0.384	<3.84	<3.84	<3.84
SB-29	11/7/2023	11 - 12.5	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	<0.0389	0.00965 J	<0.0389	<0.389	<0.389	<0.389
SB-29	11/7/2023	15.5 - 17	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.0407	<0.407	<0.407	<0.407
T1-B1	11/1/2023	--	<0.0375	0.00578 J	0.00896 J	0.0168 J	0.0228 J	0.0378	0.0214 J	0.0109 J	0.0180 J	<0.0375	0.0287 J	<0.0375	0.0213 J	<0.0375	0.0145 J	0.0257 J	<0.375	<0.375	<0.375
T1-B2	11/1/2023	--	0.00686 J	0.0162 J	0.0382 J	0.0757	0.0817	0.1	0.048	0.0352 J	0.106	<0.0387	0.256	0.0136 J	0.0429	<0.0387	0.166	0.232	<0.387	<0.387	<0.387
T2-B1	11/1/2023	--	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.370	<0.370	<0.370
T2-B2	11/1/2023	--	<0.0384	<0.0384	0.0112 J	0.0224 J	0.0212 J	0.0278 J	0.0181 J	0.00926 J	0.0236 J	<0.0384	0.0368 J	<0.0384	0.0143 J	<0.0384	0.0263 J	0.0425	<0.384	<0.384	<0.384
T2-B3	11/1/2023	--	<0.0369	<0.0369	0.00680 J	0.0161 J	0.0193 J	0.0340 J	0.0107 J	0.00909 J	0.0186 J	<0.0369	0.0555	<0.0369	<0.0369	<0.0369	0.0274 J	0.0436	<0.369	<0.369	<0.369
T3-B1	11/1/2023	--	<0.177	<0.177	<0.177	<0.177	0.0508 J	0.0645 J	0.0552 J	<0.177	<0.177	<0.177	<0.177	<0.177	<0.177	<0.177	<0.177	<0.177	<1.77	<1.77	<1.77
T3-B2	11/1/2023	--	<0.0392	<0.0392	0.00981 J	0.0373 J	0.0547	0.0601	0.0268 J	0.0178 J	0.0395	<0.0392	0.065	<0.0392	0.0283 J	<0.0392	0.0297 J	0.0754	<0.392	<0.392	<0.392
T3-B3	11/1/2023	--	<0.0366	0.0181 J	0.0381	0.101	0.0969	0.104	0.065	0.0337 J	0.095	0.0145 J	0.15	0.00915 J	0.0613	<0.0366	0.0804	0.167	<0.366	<0.366	<0.366
T4-B1	11/1/2023	--	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	0.00862 J	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	<0.0383	<0.383	<0.383	<0.383
T4-B2	11/1/2023	--	0.0739	<0.0408	<0.0408	0.125	0.18	0.18	0.117	0.0499	0.129	0.0194 J	0.176	0.19	0.12	0.181	0.355	0.216	<0.408	<0.408	<0.408
T4-B3	11/1/2023	--	0.0459	<0.0406	0.0343 J	0.0844	0.11	0.121	0.0809	0.0359 J	0.0883	0.0157 J	0.16	0.14	0.0705	<0.0406	0.289	0.196	<0.406	<0.406	<0.406

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol (o-Chlorophenol)	2-Methylphenol (o-Cresol)	2-Nitrophenol (o-Nitrophenol)	3 and 4-Methylphenol	3,3'-Dichlorobenzidine	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	4-Bromophenylphenylether	4-Chlorophenyl Phenyl Ether	4-Nitrophenol	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl) ether	bis(2-chloroisopropyl) ether
			EPA 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**210**	**--**	**--**	**--**	**--**	**1.5**	**--**	**--**	**--**	**--**	**--**	**5.1**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**270**	**--**	**--**	**--**	**--**	**13**	**--**	**--**	**--**	**--**	**--**	**42**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
DEQ RBC Leaching to Groundwater (RBCsw)			**8.9**	**--**	**--**	**--**	**--**	**0.049**	**--**	**--**	**--**	**--**	**--**	**1**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-26	11/4/2023	2 - 3	<2.08	<2.08	<2.08	<2.08	<2.08	***<2.08***	<0.208	<2.08	<2.08	<2.08	<2.08	**<2.08**	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08
MW-26	11/4/2023	4 - 5	<0.514	<0.514	0.0582 J	<0.514	<0.514	**<0.514**	<0.0514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514
MW-26	11/4/2023	6.5 - 8	<0.414	<0.414	0.0720 J	<0.414	<0.414	**<0.414**	<0.0414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414
MW-26	11/4/2023	12.5 - 14	<0.421	<0.421	<0.421	<0.421	<0.421	**<0.421**	<0.0421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421
MW-26	11/4/2023	15.5 - 17	<0.487	<0.487	<0.487	<0.487	<0.487	**<0.487**	<0.0487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487
MW-27	11/2/2023	2 - 3	<0.421	<0.421	<0.421	<0.421	<0.421	**<0.421**	<0.0421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421
MW-27	11/2/2023	4 - 5	<0.486	<0.486	<0.486	<0.486	<0.486	**<0.486**	<0.0486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486
MW-27	11/4/2023	6.5 - 8	<0.486	<0.486	<0.486	<0.486	<0.486	**<0.486**	<0.0486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486
MW-27	11/4/2023	11 - 12.5	<0.690	<0.690	<0.690	<0.690	<0.690	**<0.690**	<0.0690	<0.690	<0.690	<0.690	0.0613 J	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690
MW-27	11/4/2023	15.5 - 17	<0.860	<0.860	<0.860	<0.860	<0.860	**<0.860**	<0.0860	<0.860	<0.860	<0.860	0.0545 J	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860
MW-28	11/4/2023	2 - 3	<0.505	<0.505	<0.505	<0.505	<0.505	**<0.505**	<0.0505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505
MW-28	11/4/2023	4 - 5	<0.503	<0.503	<0.503	<0.503	<0.503	**<0.503**	<0.0503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503
MW-28	11/4/2023	8 - 9.5	<0.531	<0.531	<0.531	<0.531	<0.531	**<0.531**	<0.0531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531
MW-28	11/4/2023	11 - 14	<0.520	<0.520	<0.520	<0.520	<0.520	**<0.520**	<0.0520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520
MW-28*	11/4/2023	11 - 14	<0.745	<0.745	<0.745	<0.745	<0.745	**<0.745**	<0.0745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745
MW-28	11/4/2023	17 - 18.5	<0.545	<0.545	<0.545	<0.545	<0.545	**<0.545**	<0.0545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545
MW-29	11/1/2023	6.5 - 8	<0.421	<0.421	<0.421	<0.421	<0.421	**<0.421**	<0.0421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.467
MW-29	11/1/2023	11 - 14	<0.467	<0.467	<0.467	<0.467	<0.467	**<0.467**	<0.0467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.544
MW-29*	11/1/2023	11 - 14	<0.544	<0.544	<0.544	<0.544	<0.544	**<0.544**	<0.0544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.434
MW-29	11/1/2023	17 - 18.5	<0.434	<0.434	<0.434	<0.434	<0.434	**<0.434**	<0.0434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.640
MW-30	11/1/2023	2 - 3	<0.640	<0.640	<0.640	<0.640	<0.640	**<0.640**	<0.0640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.413
MW-30*	11/1/2023	2 - 3	<0.413	<0.413	<0.413	<0.413	<0.413	**<0.413**	<0.0413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.421
MW-30	11/1/2023	4 - 5	<0.386	<0.386	<0.386	<0.386J6	<0.386	**<0.386**	<0.0386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386
MW-30	11/2/2023	6.5 - 8	<0.417	<0.417	<0.417	<0.417	<0.417	**<0.417**	<0.0417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417
MW-30	11/2/2023	11 - 14	<0.538	<0.538	<0.538	<0.538	<0.538	**<0.538**	<0.0538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538
MW-30*	11/2/2023	11 - 14	<0.664	<0.664	<0.664	<0.664	<0.664	**<0.664**	<0.0664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664
MW-30	11/2/2023	15.5 - 17	<0.638	<0.638	<0.638	<0.638	<0.638	**<0.638**	<0.0638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol (o-Chlorophenol)	2-Methylphenol (o-Cresol)	2-Nitrophenol (o-Nitrophenol)	3 and 4-Methylphenol	3,3'-Dichlorobenzidine	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	4-Bromophenylphenylether	4-Chlorophenyl Phenyl Ether	4-Nitrophenol	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl) ether	bis(2-chloroisopropyl) ether
			EPA 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			210	--	--	--	--	1.5	--	--	--	--	--	5.1	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			270	--	--	--	--	13	--	--	--	--	--	42	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			8.9	--	--	--	--	0.049	--	--	--	--	--	1	--	--	--	--	--	--	--
MW-31	10/31/2023	2 - 2.5	<0.385	<0.385	<0.385	<0.385	<0.385	**<0.385**	<0.0385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385
MW-31	10/31/2023	4 - 5	<0.494	<0.494	<0.494	<0.494	<0.494	**<0.494**	<0.0494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494
MW-31	10/31/2023	6.5 - 8	<0.490	<0.490	<0.490	<0.490	<0.490	**<0.490**	<0.0490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490
MW-31	10/31/2023	12.5 - 14	<0.526	<0.526	<0.526	<0.526	<0.526	**<0.526**	<0.0526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526
MW-32	11/6/2023	2 - 3	<0.442	<0.442	<0.442	<0.442	<0.442	**<0.442**	<0.0442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442
MW-32	11/6/2023	4 - 5	<0.450	<0.450	<0.450	<0.450	<0.450	**<0.450**	<0.0450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450
MW-32	11/6/2023	7.5 - 9.5	<2.55	<2.55	<2.55	<2.55	<2.55	***<2.55***	<0.255	<2.55	<2.55	<2.55	<2.55	**<2.55**	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55
MW-32	11/6/2023	12.5 - 14	<0.534	<0.534	<0.534	<0.534	<0.534	**<0.534**	<0.0534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534
MW-32	11/6/2023	16 - 18.5	<0.430	<0.430	<0.430	<0.430	<0.430	**<0.430**	<0.0430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430
MW-33	11/6/2023	2 - 3	<0.394	<0.394	<0.394	<0.394	<0.394	**<0.394**	<0.0394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394
MW-33	11/6/2023	4 - 5	<0.433	<0.433	<0.433	<0.433	<0.433	**<0.433**	<0.0433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433
MW-33	11/6/2023	6.5 - 8	<0.425	<0.425	<0.425	<0.425	<0.425	**<0.425**	<0.0425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425
MW-33	11/6/2023	12.5 - 14	<2.37	<2.37	<2.37	<2.37	<2.37	***<2.37***	<0.237	<2.37	<2.37	<2.37	<2.37	**<2.37**	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37
MW-33	11/6/2023	15.5 - 17	<0.433	<0.433	<0.433	<0.433	<0.433	**<0.433**	<0.0433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433
MW-34	11/6/2023	2 - 3	<0.413	<0.413	<0.413	<0.413	<0.413	**<0.413**	<0.0413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413
MW-34	11/6/2023	4 - 5	<0.396	<0.396	<0.396	<0.396	<0.396	**<0.396**	<0.0396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396
MW-34	11/6/2023	8 - 9	<0.418	<0.418	<0.418	<0.418	<0.418	**<0.418**	<0.0418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418
MW-34	11/6/2023	12.5 - 14	<0.636	<0.636	<0.636	<0.636	<0.636	**<0.636**	<0.0636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636
MW-34	11/6/2023	17 - 18.5	<0.438	<0.438	<0.438	<0.438	<0.438	**<0.438**	<0.0438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438
SB-17	11/2/2023	1.5 - 2.5	<0.371	<0.371	<0.371	<0.371	<0.371	**<0.371**	<0.0371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.349
SB-17	11/2/2023	4 - 5	<0.368	<0.368	<0.368	<0.368	<0.368	**<0.368**	<0.0368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.371
SB-17*	11/2/2023	4 - 5	<0.349	<0.349	<0.349	<0.349	<0.349	**<0.349**	<0.0349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.368
SB-18	11/2/2023	2 - 4	<3.91	<3.91	<3.91	<3.91	<3.91	***<3.91***	<0.391	<3.91	<3.91	<3.91	<3.91	**<3.91**	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91
SB-18*	11/2/2023	2 - 4	<1.94	<1.94	<1.94	<1.94	<1.94	***<1.94***	<0.194	<1.94	<1.94	<1.94	<1.94	**<1.94**	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94
SB-18	11/2/2023	4 - 5	<0.374	<0.374	<0.374	<0.374	<0.374	**<0.374**	<0.0374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
SB-18	11/2/2023	6.5 - 7.5	<0.403	<0.403	<0.403	<0.403	<0.403	**<0.403**	<0.0403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403
SB-18	11/2/2023	9.5 - 10.5	<0.409	<0.409	<0.409	<0.409	<0.409	**<0.409**	<0.0409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409
SB-18A	11/7/2023	2 - 3	<0.379	<0.379	<0.379	<0.379	<0.379	**<0.379**	<0.0379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379
SB-18A	11/7/2023	4 - 5	<0.374	<0.374	<0.374	<0.374	<0.374	**<0.374**	<0.0374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol (o-Chlorophenol)	2-Methylphenol (o-Cresol)	2-Nitrophenol (o-Nitrophenol)	3 and 4-Methylphenol	3,3'-Dichlorobenzidine	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	4-Bromophenylphenylether	4-Chlorophenyl Phenyl Ether	4-Nitrophenol	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl) ether	bis(2-chloroisopropyl) ether
			EPA 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**210**	--	--	--	--	**1.5**	--	--	--	--	--	**5.1**	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**270**	--	--	--	--	**13**	--	--	--	--	--	**42**	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			**8.9**	--	--	--	--	**0.049**	--	--	--	--	--	**1**	--	--	--	--	--	--	--
SB-19	11/2/2023	2 - 3	<19.7	<19.7	<19.7	<19.7	<19.7	***<19.7***	<1.97	<19.7	<19.7	<19.7	<19.7	***<19.7***	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7
SB-19	11/2/2023	4 - 5	<0.496	<0.496	<0.496	<0.496	<0.496	**<0.496**	<0.0496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496
SB-19	11/2/2023	9.5 - 10.2	<0.380	<0.380	<0.380	<0.380	<0.380	**<0.380**	<0.0380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380
SB-19A	11/7/2023	2 - 3	<0.453	<0.453	<0.453	<0.453	<0.453	**<0.453**	<0.0453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453
SB-19A*	11/7/2023	2 - 3	<0.459	<0.459	<0.459	<0.459	<0.459	**<0.459**	<0.0459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459
SB-19A	11/7/2023	4 - 5	<0.449	<0.449	<0.449	<0.449	<0.449	**<0.449**	<0.0449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449
SB-20	11/2/2023	2 - 3	<0.426	<0.426	<0.426	<0.426	<0.426	**<0.426**	<0.0426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426
SB-20	11/2/2023	4 - 5	<0.447	<0.447	<0.447	<0.447	<0.447	**<0.447**	<0.0447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447
SB-21	11/2/2023	2 - 2.5	<3.78	<3.78	<3.78	<3.78	<3.78	***<3.78***	<0.378	<3.78	<3.78	<3.78	<3.78	**<3.78**	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78
SB-21	11/2/2023	4 - 5	<0.461	<0.461	<0.461	<0.461	<0.461	**<0.461**	<0.0461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461
SB-21	11/3/2023	8 - 9.5	<0.474	<0.474	<0.474	<0.474	<0.474	**<0.474**	<0.0474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474
SB-21	11/3/2023	9.5 - 11.3	<0.453	<0.453	<0.453	<0.453	<0.453	**<0.453**	<0.0453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453
SB-21*	11/3/2023	9.5 - 11.3	<0.471	<0.471	<0.471	<0.471	<0.471	**<0.471**	<0.0471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471
SB-22	11/2/2023	2 - 3	<3.68	<3.68	<3.68	<3.68	<3.68	***<3.68***	<0.368	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68
SB-22	11/2/2023	4 - 5	<0.375	<0.375	<0.375	<0.375	<0.375	**<0.375**	<0.0375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375
SB-22	11/3/2023	6.5 - 9.5	<0.472	<0.472	<0.472	<0.472	<0.472	**<0.472**	<0.0472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472
SB-22*	11/3/2023	6.5 - 9.5	<0.499	<0.499	<0.499	<0.499	<0.499	**<0.499**	<0.0499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499
SB-22	11/3/2023	11 - 12.5	<0.511	<0.511	<0.511	<0.511	<0.511	**<0.511**	<0.0511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511
SB-23	11/4/2023	11 - 12.5	<0.388	<0.388	<0.388	<0.388	<0.388	**<0.388**	<0.0388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388
SB-23	11/4/2023	17 - 18.5	<2.09	<2.09	<2.09	<2.09	<2.09	***<2.09***	<0.209	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09
SB-23	11/1/2023	2 - 3	<0.478	<0.478	0.0723 J	<0.478	<0.478	**<0.478**	<0.0478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478
SB-23	11/1/2023	4 - 5	<0.533	<0.533	<0.533	<0.533	<0.533	**<0.533**	<0.0533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533
SB-23	11/4/2023	6.5 - 8	<0.549	<0.549	<0.549	<0.549	<0.549	**<0.549**	<0.0549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549
SB-24	10/31/2023	1.5 - 2	<0.398	<0.398	<0.398	<0.398J3J6	<0.398	**<0.398**	<0.0398	<0.398	<0.398	<0.398	<0.398	<0.398	<0.398J3	<0.398J3	<0.398	<0.398	<0.398	<0.398	<0.398
SB-24	10/31/2023	11 - 12.5	<2.70	<2.70	<2.70	<2.70	<2.70	***<2.70***	<0.270	<2.70	<2.70	<2.70	0.259 J	**<2.70**	<2.70	<2.70	<2.70	<2.70	<2.70	<2.70	<2.70
SB-24	10/31/2023	4 - 5	<1.43	<1.43	<1.43	<1.43	<1.43	***<1.43***	<0.143	<1.43	<1.43	<1.43	<1.43	**<1.43**	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43
SB-24	10/31/2023	8 - 9.5	<0.865	<0.865	<0.865	<0.865	<0.865	**<0.865**	<0.0865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865
SB-24	10/31/2023	15.5 - 17	<0.608	<0.608	<0.608	<0.608	<0.608	**<0.608**	<0.0608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol (o-Chlorophenol)	2-Methylphenol (o-Cresol)	2-Nitrophenol (o-Nitrophenol)	3 and 4-Methylphenol	3,3'-Dichlorobenzidine	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	4-Bromophenylphenylether	4-Chlorophenyl Phenyl Ether	4-Nitrophenol	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl) ether	bis(2-chloroisopropyl) ether
			EPA 8270E																		
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			**210**	--	--	--	--	**1.5**	--	--	--	--	--	**5.1**	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			**270**	--	--	--	--	**13**	--	--	--	--	--	**42**	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			**8.9**	--	--	--	--	**0.049**	--	--	--	--	--	**1**	--	--	--	--	--	--	--
SB-25	11/7/2023	2 - 3	<0.469	<0.469	<0.469	<0.469	<0.469	**<0.469**	<0.0469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469
SB-25	11/7/2023	4 - 5	<0.470	<0.470	<0.470	<0.470	<0.470	**<0.470**	<0.0470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470
SB-25	11/7/2023	8 - 8.8	<0.393	<0.393	<0.393	<0.393	<0.393	**<0.393**	<0.0393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393
SB-25	11/7/2023	11 - 12	<0.390	<0.390	0.110 J	<0.390	<0.390	**<0.390**	<0.0390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390
SB-26	11/7/2023	2 - 3	<0.795	<0.795	<0.795	<0.795	<0.795	**<0.795**	<0.0795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795
SB-26	11/7/2023	4 - 5	<0.765	<0.765	<0.765	<0.765	<0.765	**<0.765**	<0.0765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765
SB-26	11/7/2023	8 - 9	<1.89	<1.89	<1.89	<1.89	<1.89	***<1.89***	<0.189	<1.89	<1.89	<1.89	<1.89	**<1.89**	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89
SB-26	11/7/2023	11 - 12	<0.377	<0.377	0.0227 J	<0.377	<0.377	**<0.377**	<0.0377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
SB-27	11/7/2023	2 - 3	<0.424	<0.424	<0.424	<0.424	<0.424	**<0.424**	<0.0424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424
SB-27	11/7/2023	4 - 5	<0.499	<0.499	<0.499	<0.499	<0.499	**<0.499**	<0.0499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499
SB-27	11/7/2023	8 - 9.1	<0.757	<0.757	<0.757	<0.757	<0.757	**<0.757**	<0.0757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757
SB-27	11/7/2023	9.5 - 10.2	<3.81	<3.81	<3.81	<3.81	<3.81	***<3.81***	<0.381	<3.81	<3.81	<3.81	<3.81	**<3.81**	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81
SB-28	11/6/2023	2 - 3	<0.404	<0.404	<0.404	<0.404	<0.404	**<0.404**	<0.0404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404
SB-28	11/6/2023	4 - 5	<0.442	<0.442	<0.442	<0.442	<0.442	**<0.442**	<0.0442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442
SB-28	11/7/2023	12.5 - 13.5	<0.431	<0.431	<0.431	<0.431	<0.431	**<0.431**	<0.0431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431
SB-28	11/7/2023	18.5 - 19.8	<0.426	<0.426	<0.426	<0.426	<0.426	**<0.426**	<0.0426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426
SB-29	11/6/2023	45325.0	<0.451	<0.451	<0.451	<0.451	<0.451	**<0.451**	<0.0451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451
SB-29	11/6/2023	4 - 5	<0.402	<0.402	<0.402	<0.402	<0.402	**<0.402**	<0.0402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402
SB-29	11/7/2023	9.5 - 10.5	<3.84	<3.84	<3.84	<3.84	<3.84	***<3.84***	<0.384	<3.84	<3.84	<3.84	<3.84	**<3.84**	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84
SB-29	11/7/2023	11 - 12.5	<0.389	<0.389	<0.389	<0.389	<0.389	**<0.389**	<0.0389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389
SB-29	11/7/2023	15.5 - 17	<0.407	<0.407	<0.407	<0.407	<0.407	**<0.407**	<0.0407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407
T1-B1	11/1/2023	--	<0.375	<0.375	<0.375	<0.375	<0.375	**<0.375**	<0.0375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375
T1-B2	11/1/2023	--	<0.387	<0.387	<0.387	<0.387	<0.387	**<0.387**	<0.0387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387
T2-B1	11/1/2023	--	<0.370	<0.370	<0.370	<0.370	<0.370	**<0.370**	<0.0370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370
T2-B2	11/1/2023	--	<0.384	<0.384	<0.384	<0.384	<0.384	**<0.384**	<0.0384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384
T2-B3	11/1/2023	--	<0.369	<0.369	<0.369	<0.369	<0.369	**<0.369**	<0.0369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369
T3-B1	11/1/2023	--	<1.77	<1.77	<1.77	<1.77	<1.77	***<1.77***	<0.177	<1.77	<1.77	<1.77	<1.77	**<1.77**	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77
T3-B2	11/1/2023	--	<0.392	<0.392	<0.392	<0.392	<0.392	**<0.392**	<0.0392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392
T3-B3	11/1/2023	--	<0.366	<0.366	<0.366	<0.366	<0.366	**<0.366**	<0.0366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366
T4-B1	11/1/2023	--	<0.383	<0.383	<0.383	<0.383	<0.383	**<0.383**	<0.0383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383
T4-B2	11/1/2023	--	<0.408	<0.408	<0.408	<0.408	<0.408	**<0.408**	<0.0408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408
T4-B3	11/1/2023	--	<0.406	<0.406	<0.406	<0.406	<0.406	**<0.406**	<0.0406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	bis(2-Ethylhexyl)phthalate	Butylbenzylphthalate	Di-n-butylphthalate	Di-n-octylphthalate	Diethylphthalate	Dimethyl Phthalate	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	N-Nitrosodi-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine (Diphenylamine)	Nitrobenzene	p-Chloro-m-cresol	Pentachlorophenol	Phenol	Pyridine
			USEPA Method 8270E																	
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	0.93	--	32	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	11	--	180	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	0.084	--	0.087	--	--	--	--	--	--	--	--	--
MW-26	11/4/2023	2 - 3	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08	***<2.08***	<2.08	**<2.08**	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08	<2.08
MW-26	11/4/2023	4 - 5	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	**<0.514**	<0.514	**<0.514**	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514	<0.514
MW-26	11/4/2023	6.5 - 8	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	**<0.414**	<0.414	**<0.414**	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	<0.414	0.0217 J	<0.414
MW-26	11/4/2023	12.5 - 14	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	**<0.421**	<0.421	**<0.421**	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421
MW-26	11/4/2023	15.5 - 17	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	**<0.487**	<0.487	**<0.487**	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487	<0.487
MW-27	11/2/2023	2 - 3	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	**<0.421**	<0.421	**<0.421**	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421
MW-27	11/2/2023	4 - 5	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	**<0.486**	<0.486	**<0.486**	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486
MW-27	11/4/2023	6.5 - 8	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	**<0.486**	<0.486	**<0.486**	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486	<0.486
MW-27	11/4/2023	11 - 12.5	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690	**<0.690**	<0.690	**<0.690**	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690	<0.690	<0.69
MW-27	11/4/2023	15.5 - 17	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860	**<0.860**	<0.860	**<0.860**	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860	<0.860	<0.86
MW-28	11/4/2023	2 - 3	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	**<0.505**	<0.505	**<0.505**	0.0223 B J	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505	<0.505
MW-28	11/4/2023	4 - 5	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	**<0.503**	<0.503	**<0.503**	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503	<0.503
MW-28	11/4/2023	8 - 9.5	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	**<0.531**	<0.531	**<0.531**	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531	<0.531
MW-28	11/4/2023	11 - 14	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	**<0.520**	<0.520	**<0.520**	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.52
MW-28*	11/4/2023	11 - 14	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	**<0.745**	<0.745	**<0.745**	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745	<0.745
MW-28	11/4/2023	17 - 18.5	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	**<0.545**	<0.545	**<0.545**	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545	<0.545
MW-29	11/1/2023	6.5 - 8	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	**<0.421**	<0.421	**<0.421**	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421	<0.421
MW-29	11/1/2023	11 - 14	<0.467	0.0146 J	<0.467	<0.467	<0.467	<0.467	**<0.467**	<0.467	**<0.467**	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467	<0.467
MW-29*	11/1/2023	11 - 14	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	**<0.544**	<0.544	**<0.544**	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544	<0.544
MW-29	11/1/2023	17 - 18.5	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	**<0.434**	<0.434	**<0.434**	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434	<0.434
MW-30	11/1/2023	2 - 3	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	**<0.640**	<0.640	**<0.640**	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.64
MW-30*	11/1/2023	2 - 3	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	**<0.413**	<0.413	**<0.413**	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413
MW-30	11/1/2023	4 - 5	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	**<0.386**	<0.386 J3 J6	**<0.386**	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386	<0.386
MW-30	11/2/2023	6.5 - 8	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	**<0.417**	<0.417 J6	**<0.417**	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417	<0.417
MW-30	11/2/2023	11 - 14	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	**<0.538**	<0.538	**<0.538**	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538	<0.538
MW-30*	11/2/2023	11 - 14	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	**<0.664**	<0.664	**<0.664**	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664	<0.664
MW-30	11/2/2023	15.5 - 17	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	**<0.638**	<0.638	**<0.638**	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638	<0.638

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	bis(2-Ethylhexyl)phthalate	Butylbenzylphthalate	Di-n-butylphthalate	Di-n-octylphthalate	Diethylphthalate	Dimethyl Phthalate	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	N-Nitrosodi-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine (Diphenylamine)	Nitrobenzene	p-Chloro-m-cresol	Pentachlorophenol	Phenol	Pyridine
			USEPA Method 8270E																	
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	**0.93**	--	**32**	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	**11**	--	**180**	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	**0.084**	--	**0.087**	--	--	--	--	--	--	--	--	--
MW-31	10/31/2023	2 - 2.5	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	**<0.385**	<0.385	**<0.385**	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385	<0.385
MW-31	10/31/2023	4 - 5	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	**<0.494**	<0.494	**<0.494**	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494	<0.494
MW-31	10/31/2023	6.5 - 8	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	**<0.490**	<0.490	**<0.490**	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.490	<0.49
MW-31	10/31/2023	12.5 - 14	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	**<0.526**	<0.526	**<0.526**	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526	<0.526
MW-32	11/6/2023	2 - 3	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	**<0.442**	<0.442	**<0.442**	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442
MW-32	11/6/2023	4 - 5	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	**<0.450**	<0.450	**<0.450**	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.45
MW-32	11/6/2023	7.5 - 9.5	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55	***<2.55***	<2.55	**<2.55**	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55	<2.55
MW-32	11/6/2023	12.5 - 14	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	**<0.534**	<0.534	**<0.534**	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534	<0.534
MW-32	11/6/2023	16 - 18.5	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	**<0.430**	<0.430	**<0.430**	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.43
MW-33	11/6/2023	2 - 3	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	**<0.394**	<0.394	**<0.394**	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394	<0.394
MW-33	11/6/2023	4 - 5	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	**<0.433**	<0.433	**<0.433**	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433
MW-33	11/6/2023	6.5 - 8	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	**<0.425**	<0.425	**<0.425**	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425	<0.425
MW-33	11/6/2023	12.5 - 14	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37	***<2.37***	<2.37	**<2.37**	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37	<2.37
MW-33	11/6/2023	15.5 - 17	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	**<0.433**	<0.433	**<0.433**	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433	<0.433
MW-34	11/6/2023	2 - 3	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	**<0.413**	<0.413	**<0.413**	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413
MW-34	11/6/2023	4 - 5	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	**<0.396**	<0.396	**<0.396**	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396	<0.396
MW-34	11/6/2023	8 - 9	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	**<0.418**	<0.418	**<0.418**	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418	<0.418
MW-34	11/6/2023	12.5 - 14	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	**<0.636**	<0.636	**<0.636**	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636	<0.636
MW-34	11/6/2023	17 - 18.5	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	**<0.438**	<0.438	**<0.438**	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438	<0.438
SB-17	11/2/2023	1.5 - 2.5	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	**<0.371**	<0.371	**<0.371**	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371
SB-17	11/2/2023	4 - 5	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	**<0.368**	<0.368	**<0.368**	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368
SB-17*	11/2/2023	4 - 5	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	**<0.349**	<0.349	**<0.349**	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349
SB-18	11/2/2023	2 - 4	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91	***<3.91***	<3.91	**<3.91**	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91	<3.91
SB-18*	11/2/2023	2 - 4	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	***<1.94***	<1.94	**<1.94**	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94
SB-18	11/2/2023	4 - 5	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	**<0.374**	<0.374	**<0.374**	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374
SB-18	11/2/2023	6.5 - 7.5	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	**<0.403**	<0.403	**<0.403**	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403	<0.403
SB-18	11/2/2023	9.5 - 10.5	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	**<0.409**	<0.409	**<0.409**	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409
SB-18A	11/7/2023	2 - 3	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	**<0.379**	<0.379	**<0.379**	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379	<0.379
SB-18A	11/7/2023	4 - 5	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	**<0.374**	<0.374	**<0.374**	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374	<0.374

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	bis(2-Ethylhexyl)phthalate	Butylbenzylphthalate	Di-n-butylphthalate	Di-n-octylphthalate	Diethylphthalate	Dimethyl Phthalate	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	N-Nitrosodi-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine (Diphenylamine)	Nitrobenzene	p-Chloro-m-cresol	Pentachlorophenol	Phenol	Pyridine
			USEPA Method 8270E																	
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	0.93	--	32	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	11	--	180	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	0.084	--	0.087	--	--	--	--	--	--	--	--	--
SB-19	11/2/2023	2 - 3	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7	**<19.7**	<19.7	**<19.7**	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7	<19.7
SB-19	11/2/2023	4 - 5	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	**<0.496**	<0.496	**<0.496**	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496	<0.496
SB-19	11/2/2023	9.5 - 10.2	0.103 J	<0.380	<0.380	<0.380	<0.380	<0.380	**<0.380**	<0.380	**<0.380**	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.38
SB-19A	11/7/2023	2 - 3	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	**<0.453**	<0.453	**<0.453**	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453
SB-19A*	11/7/2023	2 - 3	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	**<0.459**	<0.459	**<0.459**	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459	<0.459
SB-19A	11/7/2023	4 - 5	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	**<0.449**	<0.449	**<0.449**	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449	<0.449
SB-20	11/2/2023	2 - 3	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	**<0.426**	<0.426	**<0.426**	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426
SB-20	11/2/2023	4 - 5	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	**<0.447**	<0.447	**<0.447**	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447	<0.447
SB-21	11/2/2023	2 - 2.5	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78	***<3.78***	<3.78	**<3.78**	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78	<3.78
SB-21	11/2/2023	4 - 5	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	**<0.461**	<0.461	**<0.461**	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461	<0.461
SB-21	11/3/2023	8 - 9.5	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	**<0.474**	<0.474	**<0.474**	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474	<0.474
SB-21	11/3/2023	9.5 - 11.3	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	**<0.453**	<0.453	**<0.453**	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453	<0.453
SB-21*	11/3/2023	9.5 - 11.3	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	**<0.471**	<0.471	**<0.471**	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471	<0.471
SB-22	11/2/2023	2 - 3	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	***<3.68***	<3.68	**<3.68**	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68	<3.68
SB-22	11/2/2023	4 - 5	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	**<0.375**	<0.375	**<0.375**	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375
SB-22	11/3/2023	6.5 - 9.5	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	**<0.472**	<0.472	**<0.472**	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472	<0.472
SB-22*	11/3/2023	6.5 - 9.5	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	**<0.499**	<0.499	**<0.499**	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499
SB-22	11/3/2023	11 - 12.5	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	**<0.511**	<0.511	**<0.511**	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511
SB-23	11/4/2023	11 - 12.5	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	**<0.388**	<0.388	**<0.388**	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388	<0.388
SB-23	11/4/2023	17 - 18.5	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	***<2.09***	<2.09	**<2.09**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09
SB-23	11/1/2023	2 - 3	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	**<0.478**	<0.478	**<0.478**	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478	<0.478
SB-23	11/1/2023	4 - 5	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	**<0.533**	<0.533	**<0.533**	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533	<0.533
SB-23	11/4/2023	6.5 - 8	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	**<0.549**	<0.549	**<0.549**	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549	<0.549
SB-24	10/31/2023	1.5 - 2	<0.398	<0.398	<0.398	<0.398	<0.398	<0.398	**<0.398**	<0.398J3J6	**<0.398**	<0.398	<0.398	<0.398	<0.398	<0.398	<0.398	<0.398	<0.398	<0.398
SB-24	10/31/2023	11 - 12.5	<2.70	<2.70	<2.70	<2.70	<2.70	<2.70	***<2.70***	<2.70	**<2.70**	<2.70	<2.70	<2.70	<2.70	<2.70	<2.70	<2.70	<2.70	<2.7
SB-24	10/31/2023	4 - 5	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43	***<1.43***	<1.43	**<1.43**	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43	<1.43
SB-24	10/31/2023	8 - 9.5	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	**<0.865**	<0.865	**<0.865**	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865	<0.865
SB-24	10/31/2023	15.5 - 17	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	**<0.608**	<0.608	**<0.608**	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608	<0.608

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	bis(2-Ethylhexyl)phthalate	Butylbenzylphthalate	Di-n-butylphthalate	Di-n-octylphthalate	Diethylphthalate	Dimethyl Phthalate	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	N-Nitrosodi-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine (Diphenylamine)	Nitrobenzene	p-Chloro-m-cresol	Pentachlorophenol	Phenol	Pyridine
			USEPA Method 8270E																	
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	0.93	--	32	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	11	--	180	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	0.084	--	0.087	--	--	--	--	--	--	--	--	--
SB-25	11/7/2023	2 - 3	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	**<0.469**	<0.469	**<0.469**	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469	<0.469
SB-25	11/7/2023	4 - 5	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	**<0.470**	<0.470	**<0.470**	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.47
SB-25	11/7/2023	8 - 8.8	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	**<0.393**	<0.393	**<0.393**	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393	<0.393
SB-25	11/7/2023	11 - 12	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	**<0.390**	<0.390	**<0.390**	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.39
SB-26	11/7/2023	2 - 3	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	**<0.795**	<0.795	**<0.795**	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795	<0.795
SB-26	11/7/2023	4 - 5	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	**<0.765**	<0.765	**<0.765**	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765	<0.765
SB-26	11/7/2023	8 - 9	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	***<1.89***	<1.89	**<1.89**	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89
SB-26	11/7/2023	11 - 12	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	**<0.377**	<0.377	**<0.377**	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377	<0.377
SB-27	11/7/2023	2 - 3	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	**<0.424**	<0.424 J3 J6	**<0.424**	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424	<0.424
SB-27	11/7/2023	4 - 5	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	**<0.499**	<0.499	**<0.499**	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	<0.499	**0.0271 J**	<0.499
SB-27	11/7/2023	8 - 9.1	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	**<0.757**	<0.757	**<0.757**	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757	<0.757
SB-27	11/7/2023	9.5 - 10.2	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81	***<3.81***	<3.81	**<3.81**	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81	<3.81
SB-28	11/6/2023	2 - 3	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	**<0.404**	<0.404	**<0.404**	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404	<0.404
SB-28	11/6/2023	4 - 5	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	**<0.442**	<0.442	**<0.442**	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442	<0.442
SB-28	11/7/2023	12.5 - 13.5	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	**<0.431**	<0.431	**<0.431**	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431	<0.431
SB-28	11/7/2023	18.5 - 19.8	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	**<0.426**	<0.426	**<0.426**	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426	<0.426
SB-29	11/6/2023	45325.0	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	**<0.451**	<0.451	**<0.451**	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451	<0.451
SB-29	11/6/2023	4 - 5	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	**<0.402**	<0.402	**<0.402**	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402	<0.402
SB-29	11/7/2023	9.5 - 10.5	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84	***<3.84***	<3.84	**<3.84**	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84	<3.84
SB-29	11/7/2023	11 - 12.5	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	**<0.389**	<0.389	**<0.389**	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389	<0.389
SB-29	11/7/2023	15.5 - 17	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	**<0.407**	<0.407	**<0.407**	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407	<0.407
T1-B1	11/1/2023	--	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	**<0.375**	<0.375	**<0.375**	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375
T1-B2	11/1/2023	--	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	**<0.387**	<0.387	**<0.387**	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387	<0.387
T2-B1	11/1/2023	--	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	**<0.370**	<0.370	**<0.370**	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.37
T2-B2	11/1/2023	--	<0.384	<0.384	0.0131 J	<0.384	<0.384	<0.384	**<0.384**	<0.384	**<0.384**	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384	<0.384
T2-B3	11/1/2023	--	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	**<0.369**	<0.369	**<0.369**	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369
T3-B1	11/1/2023	--	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	***<1.77***	<1.77	**<1.77**	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77
T3-B2	11/1/2023	--	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	**<0.392**	<0.392	**<0.392**	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392	<0.392
T3-B3	11/1/2023	--	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	**<0.366**	<0.366	**<0.366**	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366	<0.366
T4-B1	11/1/2023	--	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	**<0.383**	<0.383	**<0.383**	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383	<0.383
T4-B2	11/1/2023	--	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	**<0.408**	<0.408	**<0.408**	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408	<0.408
T4-B3	11/1/2023	--	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	**<0.406**	<0.406	**<0.406**	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406	<0.406

Table 3. Soil Analytical Data – Semivolatile Organic Compounds
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Notes:

1. **BOLD and yellow highlighted** values exceed the RBCsw.
2. **BOLD** values are not detected greater than the laboratory reporting limit (RL) but the RL is greater than the RBCsw.
3. ***BOLD and italicized*** values are not detected greater than the laboratory RL but the RL exceed the RBCss Occ.
4. ***BOLD, italicized, and underlined*** values are not detected greater than the laboratory RL but the RL exceed the RBCss CW.
5. Analytical concentrations are presented in milligrams per kilogram (mg/kg).
6. Sample depth in feet below ground surface.

Acronyms and Abbreviations:

-- = not applicable, not available, or not analyzed

< = not detected at or greater than the laboratory method detection limit (MDL) or laboratory reporting limit (RL)

* = duplicate sample

DEQ = Oregon Department of Environmental Quality

RBC = risk-based concentration

USEPA = United States Environmental Protection Agency

Laboratory Qualifiers:

B = The same analyte is found in the associated blank.

J = The concentration was detected between the MDL and RL; therefore, the reported concentration is an estimate.

J3 = The associated batch quality control (QC) was outside the established QC range for precision.

J5 = The sample matrix interfered with the ability to make any accurate determination; spike value is high.

J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Current Analytical Methods:

Samples analyzed by USEPA Method 8270E and 8270E-SIM.

Table 4. Soil Analytical Data – Polychlorinated Biphenyls
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	--	**0.59**
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	--	**4.9**
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	**1.1**
SB-24	10/31/2023	1.5 - 2	<0.0406	<0.0406	<0.0406	<0.0406	<0.0203	<0.0203	<0.0203	<0.1117
SB-24	10/31/2023	4 - 5	<0.0550	<0.0550	<0.0550	<0.0550	<0.0275	<0.0275	<0.0275	<0.1513
SB-24	10/31/2023	8 - 9.5	<0.0729	<0.0729	<0.0729	<0.0729	<0.0364	<0.0364	<0.0364	<0.2004
SB-24	10/31/2023	11 - 12.5	<0.0884	<0.0884	<0.0884	<0.0884	<0.0442	<0.0442	<0.0442	<0.4199
SB-24	10/31/2023	15.5 - 17	<0.0621	<0.0621	<0.0621	<0.0621	<0.0310	<0.0310	<0.0310	<0.1707
SB-25	11/7/2023	2 - 3	<0.0479	<0.0479	<0.0479	<0.0479	<0.0239	<0.0239	<0.0239	<0.1317
SB-25	11/7/2023	4 - 5	<0.0480	<0.0480	<0.0480	<0.0480	<0.0240	<0.0240	<0.0240	<0.132
SB-25	11/7/2023	8 - 8.8	<0.0401	<0.0401	<0.0401	<0.0401	<0.0200	<0.0200	<0.0200	<0.1102
SB-25	11/7/2023	11 - 12	<0.0399	<0.0399	<0.0399	<0.0399	<0.0199	<0.0199	<0.0199	<0.1097
SB-28	11/6/2023	2 - 3	<0.0412	<0.0412	<0.0412	<0.0412	<0.0206	<0.0206	<0.0206	<0.1133
SB-28	11/6/2023	4 - 5	<0.0451	<0.0451	<0.0451	<0.0451	<0.0226	<0.0226	<0.0226	<0.1241
SB-28	11/7/2023	12.5 - 13.5	<0.0440	<0.0440	<0.0440	<0.0440	<0.0220	<0.0220	<0.0220	<0.1210
SB-28	11/7/2023	18.5 - 19.8	<0.0435	<0.0435	<0.0435	<0.0435	<0.0218	<0.0218	<0.0218	<0.1197

Notes:

1. Analytical concentrations are presented in milligrams per kilogram (mg/kg).
2. Sample depth in feet below ground surface.

Acronyms and Abbreviations:

-- = not applicable, not available, or not analyzed

< = not detected at or greater than the laboratory method detection limit or laboratory reporting limit

DEQ = Oregon Department of Environmental Quality

PCB = polychlorinated biphenyl

RBC = risk-based concentration

USEPA = United States Environmental Protection Agency

Current Analytical Methods:

Samples analyzed by USEPA Method 8082A:

Aroclor 1016
Aroclor 1221
Aroclor 1232
Aroclor 1242
Aroclor 1248
Aroclor 1254
Aroclor 1260

Table 5. Soil Analytical Data – Metals
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	1.9	220,000	2,300	1,100	--	530,000	--	47,000	--	800
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	15	69,000	700	350	--	--	--	14,000	--	800
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	*	*	*	*	--	*	--	*	--	30
MW-26	11/4/2023	2 - 3	20,300	1.44 J	**13.8**	101	0.680 J	0.471 J	6,560	42.5	9.30	33.0	30,700	**130**
MW-26	11/4/2023	4 - 5	29,900	0.524 J	**11.6**	119	0.866 J	0.301 J	3,770	54.7	10.3	36.0	41,500	**38.5**
MW-26	11/4/2023	6.5 - 8	18,800	0.249 J	**8.98**	106	0.721 J	0.198 J	4,760	35.7	8.04	22.2	35,600	**105**
MW-26	11/4/2023	12.5 - 14	18,400	0.266 J	**6.8**	88.5	0.542 J	0.171 J	2,870	33.6	6.15	34.1	25,500	**51.2**
MW-26	11/4/2023	15.5 - 17	27,100	0.265 J	**8.8**	109	0.921 J	0.313 J	4,630	51.5	8.73	34.9	39,800	**55.4**
MW-27	11/2/2023	2 - 3	9,220	0.228 J	**7.28**	96.3	0.372 J	0.445 J	6,790	10.1	8.30	23.4	20,100	**99.9**
MW-27	11/2/2023	4 - 5	15,000	0.447 J J6	**10.5**	126 J3 J6	0.799 J	0.238 J	4,300 J3 J5 J6	20.9	10.2	44.5	30,900	**55.3 J3**
MW-27	11/4/2023	6.5 - 8	23,000	0.396 J	**9.14**	117	1.05 J	0.254 J	4,090	44.2	7.54	40.1	35,100	**76.1**
MW-27	11/4/2023	11 - 12.5	23,900	0.429 J	**11.6**	137	1.07 J	0.333 J	5,240	46.9	9.14	66.2	36,800	**96**
MW-27	11/4/2023	15.5 - 17	21,200	1.62 J	**8.4**	118	0.977 J	0.546 J	5,970	42	10.6	42.9	36,800	**63.3**
MW-28	11/4/2023	2 - 3	25,500	1.04 J	**12.3**	133	0.981 J	0.267 J	7,290	50.6	11.1	43.9	54,600	**212**
MW-28	11/4/2023	4 - 5	36,000	0.323 J	**14.7**	118	1.10 J	<1.51	5,270	63.6	6.58	49.7	51,600	**44.9**
MW-28	11/4/2023	8 - 9.5	26,700	<4.79	**5.7**	86.4	0.828 J	0.170 J	4,460	41.1	5.53	30.7	28,500	30
MW-28	11/4/2023	11 - 14	17,200	<4.68	**2.61**	112	0.577 J	<1.56	2,300	28.0	2.42	10.6	12,100	12
MW-28*	11/4/2023	11 - 14	18,600	0.389 J	**5.22**	108	0.571 J	0.250 J	4,320	27.4	5.41	24.9	19,000	**38.1**
MW-28	11/4/2023	17 - 18.5	22,000	<4.91	**8.88**	111	0.853 J	<1.64	3,650	31.7	10.1	29.4	20,800	12.5
MW-29	11/1/2023	6.5 - 8	18,800	0.978 J	**9.56**	122	0.588 J	0.351 J	4,780	35.1	7.22	65.6	25,400	**245**
MW-29	11/1/2023	11 - 14	15,800	0.356 J	**8.92**	97.3	0.572 J	0.430 J	5,290	26.8	9.61	29.4	29,100	**124**
MW-29*	11/1/2023	11 - 14	13,300	0.297 J	**8.06**	101	0.470 J	0.432 J	4,560	24.4	7.96	28.7	23,200	**130**
MW-29	11/1/2023	17 - 18.5	19,000	<5.77	**12.5**	95	0.683 J	0.448 J	3,680	30.3	14.1	35.1	25,100	23.6
MW-30	11/1/2023	2 - 3	17,000	0.562 J	**9.46**	147	0.512 J	0.633 J	6,410	31.3	11.6	32	25,700	**155**
MW-30*	11/1/2023	2 - 3	16,900	0.666 J	**9.22**	111	0.533 J	0.556 J	6,080	29.1	12.1	31.1	32,400	**163**
MW-30	11/1/2023	4 - 5	7,560	<3.48	**2.83**	63.8	0.216 J	0.334 J	4,180	11.3	6.21	8.05	13,900	**72**
MW-30	11/2/2023	6.5 - 8	4,020	<3.75	0.839 J	53.9	0.195 J	<1.25	2,040	4.78 J	3.28	4.21J	7,050	3.23
MW-30	11/2/2023	11 - 14	6,310	<4.85	**4.86**	79.2	0.398 J	0.371 J	3,390	12.5	6.48	24.5	15,400	**61.1**
MW-30*	11/2/2023	11 - 14	11,100	<5.98	**8.24**	108	0.529 J	0.375 J	3,560	17.1	9.75	49.7	24,300	**66.5**
MW-30	11/2/2023	15.5 - 17	8,530	<5.75	**3.0**	72.0	0.348 J	<1.92	2,280	14.1	3.47	17.9	9,840	13.1
MW-31	10/31/2023	2 - 2.5	14,600	0.263 J	**9.5**	80.8	0.622 J	0.479 J	4,880	20.0	8.88	32.3	37,600	**177**
MW-31	10/31/2023	4 - 5	33,300	0.306 J J6	**17.9 J6**	88.5 J6	0.575 J J6	0.533 J	2,740 J6	33.6	8.36	25.5	29,200	**33.4**
MW-31	10/31/2023	6.5 - 8	17,900	0.356 J	**10.7**	127.0	0.743 J	0.176 J	4,900	31.8	5.13	38	48,900	24.0
MW-31	10/31/2023	12.5 - 14	8,130	<4.74	**6.1**	67.6	0.415 J	0.431 J	3,140	14.9	6.17	23.1	13,100	**55.1**
MW-32	11/6/2023	2 - 3	19,800	0.414 J	**22.3**	140.0	1.49 J	0.189 J	1,990	58.2	9.35	30.5	73,200	**53.6**
MW-32	11/6/2023	4 - 5	23,600	0.230 J	**13.5**	166.0	0.995 J	0.185 J	3,630	54.6	10.8	33.5	45,400	**35.0**
MW-32	11/6/2023	7.5 - 9.5	10,900	0.774 J	**7.3**	269.0	0.591 J	0.484 J	5,580	17.6	4.36	38.6	26,000	**1,290**
MW-32	11/6/2023	12.5 - 14	16,600	0.304 J	**6.8**	153.0	0.722 J	0.156 J	3,410	28.9	3.76	23.4	15,800	**50.4**
MW-32	11/6/2023	16 - 18.5	5,260	0.275 J	**8.2**	39	0.370 J	<1.29	1,460	10.7	11.8	12.8	9,140	6.7

Table 5. Soil Analytical Data – Metals
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	1.9	220,000	2,300	1,100	--	530,000	--	47,000	--	800
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	15	69,000	700	350	--	--	--	14,000	--	800
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	*	*	*	*	--	*	--	*	--	30
MW-33	11/6/2023	2 - 3	36,000	0.265 J	**5.0**	141.0	1.08 J	0.246 J	4,470	55.3	12.5	11.1	47,600	**50.5**
MW-33	11/6/2023	4 - 5	56,700	<3.90	1.8	269.0	0.958 J	0.354 J	2,060	21.8	37.2	15.7	75,500 E	5
MW-33	11/6/2023	6.5 - 8	49,800	<3.83	**2.3**	215.0	1.23 J	0.224 J	4,230	35.0	26.9	20.6	70,600 E	**79.7**
MW-33	11/6/2023	12.5 - 14	33,100	0.302 J	**4.0**	164.0	0.978 J	0.176 J	4,050	41.6	19.2	22.7	59,600	**93.5**
MW-33	11/6/2023	15.5 - 17	12,400	<3.90	**6.8**	60.6	0.432 J	<1.30	2,380	20.8	6.21	8.88	24,200	7.0
MW-34	11/6/2023	2 - 3	24,900	<3.72	**2.2**	107.0	0.541 J	0.201 J	6,060	12.2	22.2	14.9	50,400	**41.6**
MW-34	11/6/2023	4 - 5	31,800	<3.57 J6	1.28 O1	111.0	0.887 J	0.181 J	5,430	7.16	32.3	13.6 O1	84,500	2.4
MW-34	11/6/2023	8 - 9	26,700	<3.77	1.5	144.0	0.862 J	<1.26	5,570	20.7	20.8	14.8	60,800 E	27.1
MW-34	11/6/2023	12.5 - 14	21,800	0.334 J	**5.5**	138.0	0.731 J	0.324 J	5,830	30.1	16.0	23.5	26,500	**30.3**
MW-34	11/6/2023	17 - 18.5	18,200	0.225 J	**5.41**	83.9	0.881 J	<1.32	2,780	23.8	8.98	19.1	30,100	12.0
SB-17	11/2/2023	1.5 - 2.5	10,800	0.316 J	**87.0**	93.7	0.294 J	<1.05	5,310	9.16	9.00	18.7	23,400	8.6
SB-17	11/2/2023	4 - 5	6,590	1.02 J	**18.3**	73.5	0.280 J	0.126 J	5,240	7.74	10.5	18.5	30,200	**50.5**
SB-17*	11/2/2023	4 - 5	3,650	0.235 J	**3.95**	62.6	0.267 J	<1.10	3,540	3.70 J	6.39	12.1	15,900	9.8
SB-18	11/2/2023	2 - 4	3,680	1.21 J	**24.7**	64.7	0.239 J	0.193 J	3,400	4.53 J	5.95	23.2	17,000	**124**
SB-18*	11/2/2023	2 - 4	3,440	1.61 J	**21.1**	56.1	0.262 J	0.214 J	3,110	4.74 J	6.09	21.2	17,200	**91.1**
SB-18	11/2/2023	4 - 5	3,860	0.371 J	**5.73**	66.9	0.242 J	<1.12	3,210	4.01 J	5.85	14.3	16,500	17.4
SB-18	11/2/2023	6.5 - 7.5	7,490	0.491 J	**10.2**	85	0.365 J	0.122 J	5,720	12.5	11.0	29.6	30,000	**46.4**
SB-18	11/2/2023	9.5 - 10.5	7,330	0.364 J	**5.18**	49.0	0.563 J	<1.23	3,510	6.67	8.27	14	23,700	4.59
SB-18A	11/7/2023	2 - 3	6,640	2.46 J	**26.4**	86.7	0.290 J	0.234 J	5,170	7.53	10.3	31.9	29,400	**321**
SB-18A	11/7/2023	4 - 5	9,150	0.260 J	**5.81**	94.9	0.315 J	<1.12	5,860	11.0	8.65	20.5	24,100	15.9
SB-19	11/2/2023	2 - 3	3,990	<4.44	**4.02**	226.0	0.408 J	<1.48	4,200	3.28 J	1.86	26.7	10,600	18.6
SB-19	11/2/2023	4 - 5	13,800	<4.47	**5.20**	92	0.370 J	<1.49	3,910	17.1	2.72	17.5	37,300	**46**
SB-19	11/2/2023	9.5 - 10.2	2,550	<3.42	**2.0**	32.3	0.217 J	<1.14	2,790	2.08 J	4.70	8.42	12,600	3.38
SB-19A	11/7/2023	2 - 3	21,200	<4.08	**11.5**	131.0	0.530 J	<1.36	3,200	50.6	6.73	34.2	47,300	15.2
SB-19A*	11/7/2023	2 - 3	23,000	<4.14	**10.0**	91.2	0.601 J	<1.38	3,390	49.1	5.83	34.8	35,700	12.5
SB-19A	11/7/2023	4 - 5	23,100	<4.05	**6.8**	92.1	0.597 J	<1.35	3,880	37.7	5.98	33.1	31,100	**78.1**
SB-20	11/2/2023	2 - 3	7,370	0.318 J	**61.4**	95.7	0.433 J	0.110 J	4,320	11.9	3.34	27.5	33,400	18.0
SB-20	11/2/2023	4 - 5	9,430	<4.03	**9.2**	150.0	0.288 J	0.178 J	4,210	12.3	6.04	32.3	16,100	20.0
SB-21	11/2/2023	2 - 2.5	3,510	0.629 J	**24.0**	49	<2.83	<1.13	1,770	4.16 J	4.13	16.9	9,540	**43.0**
SB-21	11/2/2023	4 - 5	2,570	0.544 J	**15.9**	81.0	<3.46	0.241 J	202,000	6.32 J	2.57	12.4	15,700	30
SB-21	11/3/2023	8 - 9.5	2,710	4.57	**20.0**	50	0.209 J	1.02 J	38,700	9.08	12.4	418	59,600	**1,080**
SB-21	11/3/2023	9.5 - 11.3	3,900	2.14 J	**12**	55.3	0.290 J	0.901 J	27,900	8.61	8.87	580	53,200	**554**
SB-21*	11/3/2023	9.5 - 11.3	3,490	1.68 J	**9.3**	57.4	0.425 J	0.769 J	23,300	6.07 J	6.64	433	30,100	**509**
SB-22	11/2/2023	2 - 3	4,050	0.409 J	**11.1**	39.6	0.252 J	0.202 J	2,540	8.72	5.03	16.2	12,900	**67.9**
SB-22	11/2/2023	4 - 5	9,380	0.227 J	**5.0**	172.0	0.479 J	0.0963 J	3,890	16.5	10.5	21.7	18,200	21.4
SB-22	11/3/2023	6.5 - 9.5	13,400	8.08	**33.7**	172.0	0.601 J	0.152 J	2,920	26.6	25.5	60.9	113,000	**63.5**
SB-22*	11/3/2023	6.5 - 9.5	2,040	36.5	**79.1**	24.4	<3.75	0.158 J	3,670	5.82 J	38.1	142	204,000	**141.0**
SB-22	11/3/2023	11 - 12.5	3,100 J	39.2	**102.0**	32.4	0.246 J	0.214 J	2,990	6.92 J	27.5	198	221,000	**342.0**

Table 5. Soil Analytical Data – Metals
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	1.9	220,000	2,300	1,100	--	530,000	--	47,000	--	800
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	15	69,000	700	350	--	--	--	14,000	--	800
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	*	*	*	*	--	*	--	*	--	30
SB-23	11/1/2023	2 - 3	15,300	0.211 J	**9.7**	95.3	0.418 J	0.609 J	7,890	27.0	9.25	22.8	25,400	**132**
SB-23	11/1/2023	4 - 5	15,100	0.228 J	**14.4**	103	0.422 J	0.632 J	5,460	24.9	11.1	34.1	34,200	**363**
SB-23	11/4/2023	6.5 - 8	27,600	<4.31	**16.5**	129	0.975 J	0.405 J	6,070	50.0	11.3	34.7	44,600	**54.4**
SB-23	11/4/2023	11 - 12.5	11,100	1.08 J	**5.1**	113.0	0.320 J	0.437 J	4,570	15.6	8.79	28.1	19,400	**271.0**
SB-23	11/4/2023	17 - 18.5	13,800	<4.95	**10.4**	133.0	0.666 J	0.266 J	5,260	27.4	21.5	21.4	29,600	6.8
SB-24	10/31/2023	1.5 - 2	17,300	0.296 J	**12.1**	90.5	0.565 J	0.685 J	5,380	25.9	9.31	32.3	32,700	**171**
SB-24	10/31/2023	4 - 5	11,000	0.618 J	15	94	0.372 J	0.873 J	3,070	21.1	6.38	31.8	19,900	**390**
SB-24	10/31/2023	8 - 9.5	26,100	<6.43	**12.5**	161	1.04 J	0.495 J	6,630	49.4	8.87	40.7	37,500	**54.8**
SB-24	10/31/2023	11 - 12.5	21,600	<7.80	**4.32**	95.7	0.916 J	0.265 J	5,510	32.5	5.12	32.1	21,000	20.2
SB-24	10/31/2023	15.5 - 17	13,500	<5.48	**6.43**	67.1	0.854 J	0.298 J	2,370	21.4	8.49	23.5	16,500	6.28
SB-25	11/7/2023	2 - 3	10,400	<4.22	**9.65**	45.4	0.336 J	0.156 J	3,290	16.4	3.72	31.5	23,200	15.6
SB-25	11/7/2023	4 - 5	24,600	<4.24	**11.8**	107	0.734 J	0.144 J	2,530	48.4	7.20	31.6	38,500	18
SB-25	11/7/2023	8 - 8.8	13,000	<3.54	**5.18**	91.8	0.471 J	0.211 J	3,970	18.9	13.0	33.7	33,000	**176**
SB-25	11/7/2023	11 - 12	9,460	<3.52	**3.83**	70.1	0.387 J	0.213 J	3,800	9.43	13.8	18.5	33,000	22.7
SB-26	11/7/2023	2 - 3	14,200	<3.58	**4.44**	101	0.538 J	0.622 J	7,800	20.6	10.8	29	19,700	**98.5**
SB-26	11/7/2023	4 - 5	11,400	<3.45	**4.55**	101	0.412 J	0.316 J	8,550	23.3	7.75	24.2	20,500	**45.6**
SB-26	11/7/2023	8 - 9	9,890	<3.39	**3.13**	81.1	0.432 J	0.114 J	5,200	15.9	12.3	16.7	30,800	11.9
SB-26	11/7/2023	11 - 12	10,200	<3.40	**3.17**	66.7	0.377 J	0.103 J	4,090	9.31	9.21	12.9	30,600	4.18
SB-27	11/7/2023	2 - 3	16,000	<3.82	**8.06**	130	1.04 J	0.283 J	7,170	32.0	8.84	20.3	26,300	8.52
SB-27	11/7/2023	4 - 5	8,400	0.597 J	**6.02**	189	0.477 J	0.382 J	16,900	23.1	9.99	389	17,600	**975**
SB-27	11/7/2023	8 - 9.1	10,200	<3.41	**2.97**	54.6	0.391 J	0.125 J	4,830	11.1	11.9	25.1	26,600	27.3
SB-27	11/7/2023	9.5 - 10.2	8,820	<3.43	**3.28**	45.7	0.396 J	0.145 J	5,190	8.71	10.9	17.4	25,900	8.47
SB-28	11/6/2023	2 - 3	16,700 O1 V	0.267 J J6	**4.09**	43.6	0.525 J	<1.21	1,460 J5	15.9	5.68	10.2	18,300 J3 V	18.2
SB-28	11/6/2023	4 - 5	19,900	0.304 J	**8.11**	103	0.599 J	0.5	3,550	45.4	10.1	36.0	41,700	**91.1**
SB-28	11/7/2023	12.5 - 13.5	12,700	<3.88	**3.79**	85.7	0.546 J	0.378 J	3,350	18.1	8.92	18.9	22,500	21.7
SB-28	11/7/2023	18.5 - 19.8	665	<3.84	0.572 J	5.1	<3.20	<1.28	181 J	1.37 J	0.497 J	1.69J	1,450	0.765 J
SB-29	11/6/2023	2 - 3	11,300 V	0.843 J J6	**8.3**	115 J6	0.678 J	0.523 J	4,570	15.7	9.68	46.7	31,500 V	**236 J3 J6**
SB-29	11/6/2023	4 - 5	15,500	0.330 J	**8.2**	117.0	0.834 J	1.13 J	8,670	24.0	12.3	45.2	34,000	**246.0**
SB-29	11/7/2023	9.5 - 10.5	4,350	<3.46	**2.3**	35.1	0.329 J	0.301 J	2,710	3.72 J	13.9	18.6	17,700	14.5
SB-29	11/7/2023	11 - 12.5	11,300	<3.50	**3.09**	59.7	0.449 J	0.151 J	3,950	9.33	12.4	14.5	33,600	11.1
SB-29	11/7/2023	15.5 - 17	9,830	<3.67	**4.95**	51.9	0.418 J	0.114 J	2,730	12.4	8.71	12.5	25,200	4.81
T1-B1	11/1/2023	--	12,400	0.242 J	**4.0**	48.5	0.595 J	0.176 J	7,280	11.6	19.0	17.6	55,100	23.9
T1-B2	11/1/2023	--	10,500	2.99 J	**5.8**	55.3	0.428 J	0.173 J	4,770	11.7	7.85	101	32,400	**107.0**
T2-B1	11/1/2023	--	8,990	<3.33	1.1	27.5	0.465 J	0.103 J	5,360	4.30 J	15.0	11.7	49,300	3.0
T2-B2	11/1/2023	--	10,900	1.74 J	**12.6**	66.8	0.314 J	0.310 J	6,850	33.9	14.1	147	94,300	**126.0**
T2-B3	11/1/2023	--	5,180	3.79	**5.0**	62.5	0.287 J	0.285 J	4,410	7.35	6.56	79.3	25,000	**82.1**
T3-B1	11/1/2023	--	10,900	0.337 J	**2.9**	67.1	0.471 J	0.199 J	5,610	10.0	17.4	26.4	50,000	**61.7**
T3-B2	11/1/2023	--	8,960 J	87.5	**24.2**	85	0.351 J	1.2	3,830	30.2	12.4	5,690	150,000	**2,710**
T3-B3	11/1/2023	--	1,560 J	419 J	**35.4**	24.4	<2.75	1.8	1,280	29.7	10.2	14,600	166,000	**3,730**
T4-B1	11/1/2023	--	20,200	<3.45	**2.4**	142.0	1.01 J	0.165 J	5,540	7.86	37.0	23.2	84,400	13
T4-B2	11/1/2023	--	5,810 J	268 J	**36.2**	172.0	0.338 J	9.1	3,800	37.3	21.0	16,800	233,000	**5,100**
T4-B3	11/1/2023	--	5,170 J	688 J	**42.1**	57.9	0.429 J	3.3	2,560	24.4	14.1	5,730	191,000	**18,500**

Table 5. Soil Analytical Data – Metals
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	25,000	350	22,000	--	--	5,800	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	8,200	110	7,000	--	--	1,800	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	*	*	*	--	--	*	--	--	--	--
MW-26	11/4/2023	2 - 3	5,750	256	0.2730	25.7	1,900	1.29 J	0.138 J	283 J	0.191 J	63.7	147
MW-26	11/4/2023	4 - 5	5,960	264	0.159	25.8	2,080	1.46 J	0.271 J	187 J	0.288 J	78.1	130
MW-26	11/4/2023	6.5 - 8	5,220	251	0.142	19.2	1,470	0.723 J	<0.621	450 J	0.141 J	50.5	82.5
MW-26	11/4/2023	12.5 - 14	4,330	152	0.107	19.6	1,680	0.979 J	0.160 J	287 J	0.155 J	41.4	87.6
MW-26	11/4/2023	15.5 - 17	6,920	236	0.0961	23.6	2,400	1.04 J	<0.732	331 J	0.169 J	103	129
MW-27	11/2/2023	2 - 3	2,470	244	0.449	11.3	720	0.648 J	0.117 J	132 J	0.0957 J	24.9	118
MW-27	11/2/2023	4 - 5	3,820 J5	145 J5	0.585	33.6	1,540 J6	1.97 J	0.152 J	172 J	0.312 J	30.6	120
MW-27	11/4/2023	6.5 - 8	5,730	178	0.142	25.5	2,510	1.23 J	0.178 J	195 J	0.275 J	54.1	101
MW-27	11/4/2023	11 - 12.5	5,940	255	0.414	32.4	2,550	1.78 J	0.307 J	324 J	0.266 J	63.8	132
MW-27	11/4/2023	15.5 - 17	5,860	235	0.176	41.4	2,300	2.37 J	0.237 J	561 J	0.238 J	67.4	123
MW-28	11/4/2023	2 - 3	5,750	754	0.18	27.2	2,420	1.25 J	0.171 J	199 J	0.201 J	70.4	132
MW-28	11/4/2023	4 - 5	5,900	208	0.138	24.9	2,590	1.97 J	0.247 J	146 J	0.260 J	85.2	83.2
MW-28	11/4/2023	8 - 9.5	5,480	152	0.762	26.2	2,940	1.27 J	0.140 J	220 J	0.213 J	44.9	107
MW-28	11/4/2023	11 - 14	4,370	66	0.184 J6 O1	10.3	1,950	0.732 J	0.141 J	281 J	<3.12	46.1	32.5 J
MW-28*	11/4/2023	11 - 14	4,270	108	0.111	26.6	1,960	1.95 J	0.251 J	431 J	<4.48	53.4	60.6
MW-28	11/4/2023	17 - 18.5	5,360	107	0.0620 J	25.3	2,210	1.18 J	0.283 J	807 J	0.185 J	74.5	80.8
MW-29	11/1/2023	6.5 - 8	4,120	170	0.448	21.4	1,840	1.25 J	0.333 J	331 J	0.153 J	48.4	231
MW-29	11/1/2023	11 - 14	4,260	241	0.374	18.6	1,970	1.03 J	<0.816	451 J	0.126 J	68.2	144
MW-29*	11/1/2023	11 - 14	3,420	214	0.364	18.0	1,390	1.11 J	0.134 J	343 J	<2.61	59.0	143
MW-29	11/1/2023	17 - 18.5	5,170	129	0.107	41.5	2,140	1.51 J	<0.961	882 J	0.155 J	75.6	103
MW-30	11/1/2023	2 - 3	4,450	205	0.472	20.4	1,710	0.940 J	0.125 J	289 J	0.106 J	66.7	156
MW-30*	11/1/2023	2 - 3	4,710	279	0.44	20.1	2,080	0.868 J	0.111 J	368 J	0.124 J	86.1	158
MW-30	11/1/2023	4 - 5	2,520	134	0.637 J6 O1	11.5	757	<2.90	<0.580	534 J	<2.32	40.7	92.3
MW-30	11/2/2023	6.5 - 8	1,380	58.9	0.0304 J	5.87	373 J	<3.13	<0.626	143 J	<2.50	13.2	19.4 J
MW-30	11/2/2023	11 - 14	2,690	109	0.221	19.8	813	0.928 J	0.144 J	282 J	<3.23	26.9	92.1
MW-30*	11/2/2023	11 - 14	3,790	144	0.264	32.2	1,380	1.32 J	0.255 J	266 J	0.179 J	28.9	123
MW-30	11/2/2023	15.5 - 17	3,390	36.1	0.0573 J	13.6	738 J	1.57 J	<0.958	521 J	<3.83	23.7	25.2 J
MW-31	10/31/2023	2 - 2.5	3,340	364	1.00	13.4	1,220	0.560 J	0.101 J	265 J	0.0800 J	141	150 J
MW-31	10/31/2023	4 - 5	3,170	172	0.139	23.0	889 J6	1.51 J	0.133 J	157 J	0.245 J	81.9	160 J
MW-31	10/31/2023	6.5 - 8	4,470	451	0.105	27.5	2,240	2.95 J	0.291 J	225 J	0.265 J	44.5	93.3
MW-31	10/31/2023	12.5 - 14	2,060	102	0.192	22.6	953	0.938 J	0.200 J	257 J	0.155 J	21.8	91.6
MW-32	11/6/2023	2 - 3	5,000	310	0.0607	23.4	4,670	2.37 J	0.187 J	113 J	0.227 J	51.1	129
MW-32	11/6/2023	4 - 5	5,490	435	0.139	27.0	2,420	1.97 J	0.181 J	121 J	0.198 J	46.5	126
MW-32	11/6/2023	7.5 - 9.5	2,420	208	0.197	26.8	844	1.35 J	0.242 J	<764	0.198 J	34.9	539
MW-32	11/6/2023	12.5 - 14	3,930	109	0.176	13.4	1,520	1.80 J	0.156 J	381 J	0.164 J	70.0	73.5
MW-32	11/6/2023	16 - 18.5	1,930	42	0.0321 J	35.1	571 J	0.886 J	<0.646	304 J	0.101 J	44.4	66.1

Table 5. Soil Analytical Data – Metals
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	**25,000**	**350**	**22,000**	--	--	**5,800**	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	**8,200**	**110**	**7,000**	--	--	**1,800**	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	*	*	*	--	--	*	--	--	--	--
MW-33	11/6/2023	2 - 3	8,110	602	0.0237 J	31.8	2,060	1.15 J	0.738	559 J	<2.37	132	95.2
MW-33	11/6/2023	4 - 5	15,500	989	0.0456 J	15.6	2,090	1.54 J	<0.651	347 J	0.157 J	260	80.5
MW-33	11/6/2023	6.5 - 8	13,800	1,500	0.0337 J	30.8	1,160	1.48 J	<0.638	513 J	0.106 J	201	88.1
MW-33	11/6/2023	12.5 - 14	9,550	878	0.1390	35.2	1,230	1.23 J	<0.709	408 J	<2.84	131	84.1
MW-33	11/6/2023	15.5 - 17	2,940	132	0.0496 J	13.1	980	0.820 J	<0.650	403 J	<2.60	57.2	39.4
MW-34	11/6/2023	2 - 3	11,800	1,070	0.0461 J	11.3	1,140	0.423 J	<0.620	425 J	<2.48	132	84.2
MW-34	11/6/2023	4 - 5	16,100 J	1,650 O1V	<0.0476	7.78 O1	1,010	0.564 J	<0.595	394 J	0.120 J	155 J	58.6
MW-34	11/6/2023	8 - 9	12,300	926	0.0785	21.1	869	1.22 J	<0.628	365 J	<2.51	185	71.9
MW-34	11/6/2023	12.5 - 14	5,420	380	0.102	38.4	1,480	1.80 J	<0.955	728 J	0.173 J	66.3	124.0
MW-34	11/6/2023	17 - 18.5	6,240	322	0.0488 J	13.9	1,350	1.39 J	0.124 J	302 J	0.145 J	86.6	61.6
SB-17	11/2/2023	1.5 - 2.5	2,220	295	<0.0420	10.1	563	0.251 J	<0.525	1,010	<2.10	95.8	52.7
SB-17	11/2/2023	4 - 5	4,790	406	0.0284 J	9.79	820	0.235 J	<0.558	457 J	<2.23	78.9	69.3
SB-17*	11/2/2023	4 - 5	2,680	298	<0.0442	6.29	425 J	0.254 J	<0.552	113 J	<2.21	21.5	29.9
SB-18	11/2/2023	2 - 4	2,270	261	0.0534	7.52	371 J	0.244 J	<0.587	113 J	<2.35	22.5	56.8
SB-18*	11/2/2023	2 - 4	2,160	316	0.0411 J	7.14	379 J	0.233 J	<0.580	96.2 J	<2.32	24.8	57.0
SB-18	11/2/2023	4 - 5	2,620	284	<0.0450	6.14	438 J	<2.81	<0.562	133 J	<2.25	25.5	30.5
SB-18	11/2/2023	6.5 - 7.5	4,610	305	0.0265 J	14.6	854	0.467 J	<0.604	465 J	0.104 J	80.3	56.0
SB-18	11/2/2023	9.5 - 10.5	1,680	129	<0.0491	11.1	613 J	0.839 J	<0.614	188 J	0.129 J	63.9	43.3
SB-18A	11/7/2023	2 - 3	3,770	415	<0.0455	10.5	759	0.384 J	<0.568	443 J	<2.27	72.5	109
SB-18A	11/7/2023	4 - 5	3,920	313	<0.0450	12.1	903	0.629 J	<0.562	591	<2.25	67.7	54.1
SB-19	11/2/2023	2 - 3	805	147	0.0735	5.35	344 J	0.478 J	0.165 J	<741	<2.96	13.5	31.7 J
SB-19	11/2/2023	4 - 5	2,360	110	0.162	13.90	648 J	0.604 J	0.159 J	<744	<2.98	36.6	37.9
SB-19	11/2/2023	9.5 - 10.2	833	72	<0.0456	5.13	307 J	0.337 J	<0.571	209 J	<2.28	36.4	25.4 J
SB-19A	11/7/2023	2 - 3	5,390	164	0.0736	20.9	2,560	3.5	0.197 J	112 J	0.192 J	51.6	103.0
SB-19A*	11/7/2023	2 - 3	4,870	118	0.0776	17.2	2,530	2.36 J	0.239 J	<690	0.146 J	49.2	78.9
SB-19A	11/7/2023	4 - 5	4,190	132	0.277	24.0	1,290	0.840 J	0.183 J	195 J	0.183 J	70.0	94.7
SB-20	11/2/2023	2 - 3	2,030	105	0.0782	8.63	627 J	1.86 J	0.165 J	107 J	0.0952 J	23.1	56.0
SB-20	11/2/2023	4 - 5	2,690	168	0.348	13.1	918	1.15 J	0.298 J	<671	0.116 J	16.4	99.9
SB-21	11/2/2023	2 - 2.5	1,570	118	0.0743	9.86	284 J	<2.83	<0.567	201 J	<2.27	17.5	34.5
SB-21	11/2/2023	4 - 5	1,970	184	0.0525 J	6.27	192 J	<3.46	<0.693	<693	<2.77	11.8	34.5 J
SB-21	11/3/2023	8 - 9.5	1,540	365	0.0591	24.7	419 J	<3.56	0.135 J	159 J	<2.85	16.8	256
SB-21	11/3/2023	9.5 - 11.3	1,870	327	0.127	21.4	602 J	0.446 J	0.221 J	223 J	<2.72	21.8	207
SB-21*	11/3/2023	9.5 - 11.3	1,680	178	0.0942	18.5	563 J	0.496 J	0.229 J	213 J	<2.83	16.9	229
SB-22	11/2/2023	2 - 3	1,700	173	0.0674	8.84	303 J	0.249 J	<0.552	115 J	<2.21	28.2	61.6
SB-22	11/2/2023	4 - 5	3,840	412	0.0793	29.6	1,190	0.250 J	<0.563	<563	<2.25	20.4	63.2
SB-22	11/3/2023	6.5 - 9.5	5,210	649	0.42	72.2	1,120	0.280 J	<0.709	776	<2.84	35.9	96.9
SB-22*	11/3/2023	6.5 - 9.5	2,320	139	2.49	110.0	239 J	<3.75	0.133 J	626 J	<3.00	13.7	99.7
SB-22	11/3/2023	11 - 12.5	1,740	164	1.29	72.9	414 J	<3.84	0.158 J	610 J	<3.07	14.6	163

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Former Chevron Bulk Plant No. 1001838
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Sample ID	Sample Date	Sample Depth	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	25,000	350	22,000	--	--	5,800	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	8,200	110	7,000	--	--	1,800	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	*	*	*	--	--	*	--	--	--	--
SB-23	11/1/2023	2 - 3	3,960	287	0.5120	17.3	1,900	0.775 J	<0.583	334 J	0.107 J	62.9	142
SB-23	11/1/2023	4 - 5	5,460	262	0.65	15.9	2,060	0.811 J	<0.626	391 J	0.106 J	77.9	185
SB-23	11/4/2023	6.5 - 8	7,110	257	0.216	27.9	2,440	1.25 J	<0.718	465 J	0.195 J	79.3	171
SB-23	11/4/2023	11 - 12.5	2,940	164	0.158	16.4	957	0.336 J	<0.801	655 J	<3.20	42.6	550
SB-23	11/4/2023	17 - 18.5	4,790	149	0.0341 J	36.0	1,450	1.05 J	<0.824	1030.0	0.111 J	122	106
SB-24	10/31/2023	1.5 - 2	4,210	340	0.325	15.7	1,530	0.779 J	0.120 J	372 J	0.108 J	70.7	181 J
SB-24	10/31/2023	4 - 5	2,870	131	0.718	15.1	1,170	0.611 J	0.165 J	550 J	<3.24	38.7	213 J
SB-24	10/31/2023	8 - 9.5	6,250	361	0.214	29.5	3,770	2.03 J	0.316 J	1,170	0.328 J	65.3	141
SB-24	10/31/2023	11 - 12.5	5,630	132	0.465	27.5	2,840	2.99 J	0.279 J	1,320	<5.20	52.2	51.0 J
SB-24	10/31/2023	15.5 - 17	3,140	65.1	0.0854	23.5	1,210	1.21 J	<0.913	847 J	<3.65	62.9	56.4
SB-25	11/7/2023	2 - 3	3,000	69.4	0.239	8.9	863	1.18 J	<0.704	141 J	0.121 J	19.2	71.9
SB-25	11/7/2023	4 - 5	4,950	221.0	0.0967	22.9	2,020	2.38 J	0.365 J	155 J	0.176 J	56.8	84.4
SB-25	11/7/2023	8 - 8.8	2,990	265	0.796	10.1	1,090	0.828 J	0.142 J	565 J	0.0824 J	120	142
SB-25	11/7/2023	11 - 12	2,220	203	0.29	7.5	872	0.869 J	<0.586	691	<2.34	143	111
SB-26	11/7/2023	2 - 3	4,940	239	1.2000	49.6	1,110	0.764 J	0.131 J	643	<2.39	41.2	186
SB-26	11/7/2023	4 - 5	3,770	255	0.157	24.7	1,310	0.825 J	0.122 J	463 J	0.104 J	38.4	96.2
SB-26	11/7/2023	8 - 9	2,810	206	<0.0453	10.4	1,070	0.638 J	<0.566	606	0.0803 J	133	74.9
SB-26	11/7/2023	11 - 12	2,570	154	<0.0453	9.06	1,100	0.780 J	<0.566	638	0.0749 J	131	64.1
SB-27	11/7/2023	2 - 3	5,010	271	0.0364 J	40.5	2,060	1.08 J	0.152 J	899	0.240 J	33.7	84.0
SB-27	11/7/2023	4 - 5	3,920	310	1.9	25.3	923	0.590 J	0.894	265 J	<3.00	23.8	241
SB-27	11/7/2023	8 - 9.1	2,890	159	0.052	7.97	1,030	0.583 J	0.108 J	690	<2.27	121	67.5
SB-27	11/7/2023	9.5 - 10.2	2,960	129	0.0626	10.2	1,070	0.641 J	<0.572	585	0.0756 J	111	64.5
SB-28	11/6/2023	2 - 3	2,340 J5	173 J5	0.0373 J	9.05	773 J3 J5	0.495 J	<0.606	118 J	0.132 J	32.9	43.9
SB-28	11/6/2023	4 - 5	4,720	273	0.0925	22.1	1,440	2.15	0.188	288	0.151 J	83.1	173
SB-28	11/7/2023	12.5 - 13.5	2,780	251	0.0912	17.3	1,170	0.858 J	0.128 J	478 J	0.105 J	82.8	94.9
SB-28	11/7/2023	18.5 - 19.8	204 J	7	0.0400 J	1.14 J	<640	0.313 J	<0.640	168 J	<2.56	4.65	5.15 J
SB-29	11/6/2023	2 - 3	2,840 J6	305 J6	0.189	22.6	965 J6	1.19 J	0.242 J	140 J	0.223 J	28.7	155 J6
SB-29	11/6/2023	4 - 5	3,820	393.0	0.3	29.6	1,330	1.02 J	0.167 J	468 J	0.190 J	65.9	311.0
SB-29	11/7/2023	9.5 - 10.5	1,430	151	0.132	8.19	463 J	0.446 J	0.115 J	240 J	<2.31	48.2	83.8
SB-29	11/7/2023	11 - 12.5	2,180	213	0.0548	10.8	933	0.588 J	<0.583	472 J	<2.33	148	99.0
SB-29	11/7/2023	15.5 - 17	2,250	128	0.0221 J	10.9	1,000	0.652 J	<0.612	487 J	<2.45	119	61.8
T1-B1	11/1/2023	--	7,470	1,330	<0.0451	8.15	845	0.696 J	<0.564	572	0.140 J	163 J	92.8
T1-B2	11/1/2023	--	3,330	311	0.0532	7.81	928	0.614 J	<0.581	1,140	0.0833 J	101	90.6
T2-B1	11/1/2023	--	6,260	974	0.0220 J	4.14	724	0.530 J	<0.555	400 J	<2.22	136 J	53.3
T2-B2	11/1/2023	--	5,080	589	0.0416 J	33.4	957	0.389 J	<0.576	1,220	0.0834 J	98.8	237 J
T2-B3	11/1/2023	--	2,420	312	3.37	5.38	797	0.454 J	<0.554	772	0.0910 J	73.7	134 J
T3-B1	11/1/2023	--	4,010	737	0.0308 J	5.76	1,350	0.594 J	<0.530	427 J	0.117 J	147 J	158 J
T3-B2	11/1/2023	--	4,430	497 J	0.197	46.3	1,390	0.389 J	1.53	978	0.118 J	72.6	730 J
T3-B3	11/1/2023	--	931	461 J	2.09	128 J	207 J	0.899 J	5.20	399 J	<2.20	33.5	1,400 J
T4-B1	11/1/2023	--	4,420	1,590	0.0284 J	4.91	1,400	0.581 J	<0.575	467 J	0.289 J	150	93.3
T4-B2	11/1/2023	--	3,220	1,020	5.5	66.9	646	0.475 J	2.2	1,070	0.0837 J	66.2	7,710
T4-B3	11/1/2023	--	2,480	653	3	42.2	697	0.517 J	2.9	1,290	0.0953 J	53.1	1,680 J

Table 5. Soil Analytical Data - Metals
Former Chevron Bulk Plant Site No. 100-1838
10 5th Street
Astoria, Oregon

Notes:

1. **BOLD and yellow highlighted** values exceed the RBCsw.
2. **BOLD and orange highlighted** values exceed the RBCss CW.
3. **BOLD and grey highlighted** values exceed the RBCss Occ.
4. Analytical concentrations are presented in milligrams per kilogram (mg/kg).
5. Sample depth in feet below ground surface.

Acronyms and Abbreviations:

-- = not applicable, not available, or not analyzed

< = not detected at or greater than the laboratory method detection limit (MDL) or laboratory reporting limit (RL)

* = duplicate sample

DEQ = Oregon Department of Environmental Quality

RBC = risk-based concentration

USEPA = United States Environmental Protection Agency

Laboratory Qualifiers:

E = The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initialcalibration.

J = The concentration was detected between the MDL and RL; therefore, the reported concentration is an estimate.

J3 = The associated batch quality control (QC) was outside the established QC range for precision.

J5 = The sample matrix interfered with the ability to make any accurate determination; spike value is high.

J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

O1 = The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

V = The sample concentration is too high to evaluate accurate spike recoveries.

Current Analytical Methods:

Samples analyzed by USEPA Method 7471B:
- Mercury

Samples analyzed by USEPA Method 6020B:
- Arsenic
- Barium
- Cadmium
- Chromium
- Iron
- Lead
- Manganese
- Selenium
- Silver

Table 6. Soil Analytical Data – Other
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

ARCADIS

Sample ID	Sample Date	Sample Depth	Ammonia Nitrogen	Nitrate as Nitrogen	Nitrite as Nitrogen	Chloride	Fluoride	Sulfate	Sulfide	Hardness as Calcium	Total Organic Carbon	Total Solids	pH
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	--	--	--	--
MW-26	11/4/2023	2 - 3	<12.4 P1	1.38 J	0.903 J	16.8 J	3.98	29.3 J	39.8 J T8	16,400	11,500	80.4	7.59 T8
MW-26	11/4/2023	4 - 5	70.4	1.43 J	1.12 J	17.1 J	<3.09	<77.2	122 T8	9,420	18,800	64.8	6.28 T8
MW-26	11/4/2023	6.5 - 8	46.8	1.15 J	0.910 J	<25.1	<2.51	<62.7	44.3 J T8	11,900	12,400	80.5	5.31 T8
MW-26	11/4/2023	12.5 - 14	258	1.10 J	0.940 J	14.2 J	1.23 J	20.5 J	<94.9 T8	7,160	7,820	79.1	5.51 T8
MW-26	11/4/2023	15.5 - 17	60.0	1.38 J	1.07 J	<29.3	<2.93	61.9 J	70.1 J T8	11,600	10,400	68.3	6.03 T8
MW-27	11/2/2023	2 - 3	17.7	1.22 J	<12.6	<25.3	3.54	<63.2	<94.8 T8	17,000	19,500	79.1	7.20 T8
MW-27	11/2/2023	4 - 5	63.6	1.37 J	<14.6	13.7 J	2.24 J	<73.0	<109 T8	10,700	30,300	68.5	6.20 T8
MW-27	11/4/2023	6.5 - 8	83.1	1.27 J J6	1.05 J J6	<29.2 J6	1.32 J J6 P1	<73.0 J6	146 T8	10,200	20,100	68.5	5.73 T8
MW-27	11/4/2023	11 - 12.5	297	1.83 J	1.54 J	<41.8	3.07 J	31.5 J	65.7 J T8	13,100	127,000	48.3	6.14 T8
MW-27	11/4/2023	15.5 - 17	518	3.31 J	2.05 J	49.6 J	7.86	119 J	92.9 J T8	14,900	108,000	38.7	6.31 T8
MW-28	11/4/2023	2 - 3	67.1	1.29 J	1.09 J	<30.3	1.47 J	<75.8	<114 T8	18,200	30,000	65.9	5.73 T8
MW-28	11/4/2023	4 - 5	96.8	1.27 J	1.11 J	<30.5	1.93 J	<76.3	<113 T8	13,200	18,000	66.2	6.12 T8
MW-28	11/4/2023	8 - 9.5	315	1.56 J	1.17 J	18.3 J	<3.19	71.0 J	95.3 J T8	11,100	54,700	62.7	5.76 T8
MW-28	11/4/2023	11 - 14	267	1.50 J	1.10 J	<31.2	7.73	162	68.1 J T8	5,740	30,100	64.1	7.10 T8
MW-28*	11/4/2023	11 - 14	442	3.03 J	1.91 J	28.9 J	11.0	154	71.3 J T8	10,800	114,000	44.7	6.29 T8
MW-28	11/4/2023	17 - 18.5	171	2.06 J	1.21 J	29.7 J	3.40	77.1 J	<123 T8	9,120	20,000	61.1	7.06 T8
MW-29	11/1/2023	6.5 - 8	206	1.09 J	1.27 J	<28.1	3.66	31.5 J	<105	11,900	25,100	71.3	5.93 T8
MW-29	11/1/2023	11 - 14	183	1.30 J	<16.3	19.1 J	4.27	57.6 J	96.7 J J3	13,200	57,100	61.3	6.65 T8
MW-29*	11/1/2023	11 - 14	91.9	<13.4	<13.4	17.7 J	5.20 B	24.0 J	<97.8	11,400	29,100	76.7	6.69 T8
MW-29	11/1/2023	17 - 18.5	289	1.48 J	<19.2	24.0 J	7.18	37.4 J	99.4 J	9,180	31,200	52.0	7.23 T8
MW-30	11/1/2023	2 - 3	12.7	1.15 J	<12.4	<24.8	6.11	23.7 J	<93.0	16,000	18,800	80.6	7.95 T8
MW-30*	11/1/2023	2 - 3	14.2	1.01 J	<12.8	<25.5	4.45 B	<63.9	60.8 J	15,200	20,500	79.1	8.06 T8
MW-30	11/1/2023	4 - 5	<11.6	<11.6	<11.6	<23.2	1.79 J	<58.0	<86.9	10,400	8,700	86.3	8.03 T8
MW-30	11/2/2023	6.5 - 8	<12.5	1.06 J	<19.9	15.3 J	1.54 B J	<62.6	<93.9T8	5,150	5,090	79.9	7.80 T8
MW-30	11/2/2023	11 - 14	238	1.52 J	<12.5	21.7 J	2.29 B J	25.1 J	64.1 J T8	8,280	44,000	61.9	6.31 T8
MW-30*	11/2/2023	11 - 14	423	2.35 J	<16.2	27.7 J	3.63 B J	45.3 J	<150 T8	8,880	40,800	50.1	6.04 T8
MW-30	11/2/2023	15.5 - 17	323	2.35 J	<19.2	22.1 J	7.17 B	190	<144 T8	5,690	59,700	52.2	7.15 T8
MW-31	10/31/2023	2 - 2.5	25.9	0.986 J	<11.5	<23.1	4.26	<57.7	46.2 J	12,000	20,700	86.6	7.76 T8
MW-31	10/31/2023	4 - 5	100	1.32 J	<14.8	15.1 J	<2.97	<74.2	59.6 J	6,840	28,400	67.4	6.06 T8
MW-31	10/31/2023	6.5 - 8	170	1.38 J	<14.7	<29.4	5.77	23.2 J	87.2 J	12,200	32,500	68.0	5.74 T8
MW-31	10/31/2023	12.5 - 14	367	1.54 J	<15.8	33.9	3.21	34.1 J	57.0 J	7,840	140,000	63.3	6.33 T8
MW-32	11/6/2023	2 - 3	<13.3	2.18 J J6	0.950 J	<26.5	1.46 J	471 J5	<99.5 Q	4,970	19,200	75.3	3.81 T8
MW-32	11/6/2023	4 - 5	<13.5	3.38 J	0.948 J	<27.1	1.54 J	583	<101 Q	9,080	17,800	73.9	4.09 T8
MW-32	11/6/2023	7.5 - 9.5	30.0	1.40 J	1.11 J	<30.6	3.67	65.7 J	138 Q	13,900	27,000	65.5	6.50 T8
MW-32	11/6/2023	12.5 - 14	171	1.91 J	1.17 J	132	2.10 J	91.1	<120 Q	8,520	25,300	62.4	6.57 T8
MW-32	11/6/2023	16 - 18.5	54.6	1.09 J	0.916 J	141	1.56 J	95.6	<96.9 Q	3,650	9,870	77.4	5.91 T8
MW-33	11/6/2023	2 - 3	<11.8	1.07 J P1	<11.8	<23.7	1.24 J	273 J5	<88.7	11,200	11,300	84.6	6.75 T8
MW-33	11/6/2023	4 - 5	<13.0	2.14 J	<13.0	<26.0	<2.60	310	<97.6	5,150	25,900	76.8	5.37 T8

Table 6. Soil Analytical Data – Other
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Ammonia Nitrogen	Nitrate as Nitrogen	Nitrite as Nitrogen	Chloride	Fluoride	Sulfate	Sulfide	Hardness as Calcium	Total Organic Carbon	Total Solids	pH
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	--	--	--	--
MW-33	11/6/2023	6.5 - 8	<12.8	2.28 J	<12.8	<25.5	<2.55	180	<95.6	10,600	18,600	78.4	6.60 T8
MW-33	11/6/2023	12.5 - 14	<14.2	1.53 J	<14.2	<28.4	<2.84	202	<106	10,100	16,500	70.5	6.01 T8
MW-33	11/6/2023	15.5 - 17	44.8	1.69 J	<13.0	12.1 J	<2.60	56.8 J	<97.5	5,940	15,900	76.9	5.78 T8
MW-34	11/6/2023	2 - 3	<12.4	1.29 J	<12.6	<25.3	2.50 J	20.3 J	<93.0 T8	15,100	10,200	80.7	7.37 T8
MW-34	11/6/2023	4 - 5	<11.9	1.82 J	<11.9	<23.8	<2.38	51.8 J	<89.2 T8	13,600	9,250	84.1	6.44 T8
MW-34	11/6/2023	8 - 9	<12.6	1.96 J	<12.6	<25.1	1.94 J	54.5 J	<94.2 T8	13,900	11,100	79.6	6.97 T8
MW-34	11/6/2023	12.5 - 14	172	2.78 J	1.38 J	23.5 J	3.32 J	48.8 J	<143 Q	14,500	26,300	52.4	6.56 T8
MW-34	11/6/2023	17 - 18.5	46.7	1.99 J	0.970 J	<26.6	1.69 J	25.3 J	<98.7 Q	6,940	14,900	76.0	6.15 T8
SB-17	11/2/2023	1.5 - 2.5	<10.5	<10.7	<11.2	<21.4	0.939 B J	<53.5	<78.7	13,200	3,930	95.3	7.66 T8
SB-17	11/2/2023	4 - 5	<11.2	0.621 J	<11.0	<22.3	<2.23	<55.8	<83.6	13,100	6,070	89.7	7.07 T8
SB-17*	11/2/2023	4 - 5	<11.0	0.957 J	<10.7	<22.1	0.970 B J	<55.2	<82.8	8,480	7,150	90.6	6.98 T8
SB-18	11/2/2023	2 - 4	<11.7	1.04 J	<11.7	<23.5	<2.35	<58.7	<88.0	8,500	21,400	85.2	7.25 T8
SB-18*	11/2/2023	2 - 4	<11.6	1.21 J	<11.6	<23.2	<2.32	<58.0	<87.0	7,570	16,900	88.9	7.17 T8
SB-18	11/2/2023	4 - 5	<11.2	0.897 J	<11.2	<22.5	<2.25	<56.2	<84.3	7,990	8,340	82.7	7.20 T8
SB-18	11/2/2023	6.5 - 7.5	<12.1	<12.1	<12.1	<24.2	<2.42	<60.4	<90.7	14,300	10,700	81.5	7.31 T8
SB-18	11/2/2023	9.5 - 10.5	<12.3	<12.6	<12.6	<25.3	<2.53	26.9 J	39.3 J	8,770	14,100	88.0	5.96 T8
SB-18A	11/7/2023	2 - 3	<11.4	<11.5	<11.5	<23.0	<2.30	<57.4	<85.3 T8	12,900	7,650	89.0	6.90 T8
SB-18A	11/7/2023	4 - 5	<11.2	1.03 J	<11.6	<23.2	1.04 J	<57.9	<84.3 T8	14,600	9,570	67.5	6.84 T8
SB-19	11/2/2023	2 - 3	<14.8	1.18 J	<14.8	<29.6	2.14 B J	<74.1	<111	11,400	57,700	67.2	5.67 T8
SB-19	11/2/2023	4 - 5	<14.9	1.97 J	<14.9	<29.8	2.08 J	107	47.6 J T8	9,750	25,500	87.6	6.27 T8
SB-19	11/2/2023	9.5 - 10.2	<11.4	0.763 J	<11.4	58.0	<2.28	19.8 J	<85.6 T8	6,970	10,800	73.5	6.25 T8
SB-19A	11/7/2023	2 - 3	<13.6	<13.6 P1	<13.6	<27.2	<2.72	34.3 J P1	<102 T8	7,990	23,000	72.5	4.81 T8
SB-19A*	11/7/2023	2 - 3	<13.8	<13.8	<13.8	<27.6	<2.76	31.0 J	<103 T8	8,470	17,400	74.1	4.92 T8
SB-19A	11/7/2023	4 - 5	<13.5	1.75 J	<13.5	<27.0	2.15 J	26.8 J	<101 T8	9,700	24,800	78.2	6.38 T8
SB-20	11/2/2023	2 - 3	<12.8	1.26 J J6	<12.8	<25.6	<2.56 J3 J6 P1	<63.9	<95.9	11,200	22,000	74.5	6.16 T8
SB-20	11/2/2023	4 - 5	<13.4	1.34 J	<13.4	<26.8	<2.68	<67.1	<101	10,600	39,100	88.2	5.75 T8
SB-21	11/2/2023	2 - 2.5	<11.3	0.655 J	<11.3	<22.7	<2.27	<56.7	58.5 J T8	4,410	17,900	72.2	6.81 T8
SB-21	11/2/2023	4 - 5	<13.9	1,070 J	<13,900	<27,700	<2,770	<69,300	<104	507,000	27,600	70.2	12.2 T8
SB-21	11/3/2023	8 - 9.5	<14.2	<14.2	<14.2	41.3	<2.85	89.4	202 T8	96,600	33,000	73.4	9.86 T8
SB-21	11/3/2023	9.5 - 11.3	<13.6	1.12 J	<13.8	49.5	2.30 J	38.1 J	130 T8	69,800	24,000	70.6	8.63 T8
SB-21*	11/3/2023	9.5 - 11.3	<14.2	1.17 J	<14.2	51.0	1.74 J	40.4 J	341 T8	58,200	28,200	90.6	9.21 T8
SB-22	11/2/2023	2 - 3	<11.0	1.13 J	<11.0	<22.1	1.19 B J	<55.2	<82.8	6,030	17,200	86.2	6.61 T8
SB-22	11/2/2023	4 - 5	<11.3	1.15 J	<11.3	<22.5	1.18 B J	<56.3	<84.4	9,710	16,100	88.9	7.34 T8
SB-22	11/3/2023	6.5 - 9.5	<14.2	1.20 J	<14.6	637	1.57 J	160	384 T8	7,290	31,000	70.5	6.91 T8
SB-22*	11/3/2023	6.5 - 9.5	<15.0	1.08 J	<15.0	1,780	1.42 J	206	765 T8	9,150	44,500	66.8	6.78 T8
SB-22	11/3/2023	11 - 12.5	<15.4	1.26 J	<15.8	613	2.18 J	70.0 J	1,950 T8	7,460	118,000	65.1	6.56 T8
SB-23	11/1/2023	2 - 3	9.26 J	<11.7	<11.7	<23.3	2.27 J	20.0 J	<87.4	19,700	19,400	85.8	8.64 T8
SB-23	11/1/2023	4 - 5	45.8	0.817 J	<12.5	<25.1	3.51	<62.6	<94.0	13,600	19,900	79.8	6.55 T8

Table 6. Soil Analytical Data – Other
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Ammonia Nitrogen	Nitrate as Nitrogen	Nitrite as Nitrogen	Chloride	Fluoride	Sulfate	Sulfide	Hardness as Calcium	Total Organic Carbon	Total Solids	pH
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	--	--	--	--
SB-23	11/4/2023	6.5 - 8	37.5	1.23 J	1.07 J	<29.6	1.43 J	<74.0	57.6 J T8	15,200	14,200	69.6	6.22 T8
SB-23	11/4/2023	11 - 12.5	72.9	<16.0 P1	1.16 J	15.6 J P1	2.00 J	148 P1	51.2 J T8	11,400	41,200	62.4	5.54 T8
SB-23	11/4/2023	17 - 18.5	77.2	1.75 J	1.25 J	18.3 J	2.55 J	333	<124 T8	13,100	39,800	60.7	5.80 T8
SB-24	10/31/2023	1.5 - 2	21.3	1.20 J	<12.0	<23.9	3.64 J6	<59.8	47.8 J	13,700	22,800	83.7	7.43 T8
SB-24	10/31/2023	4 - 5	74.2	1.63 J	<16.2	<32.4	1.82 J	<80.9	51.9 J J6	7,770	136,000	61.8	5.50 T8
SB-24	10/31/2023	8 - 9.5	735	2.34 J	<21.4	37.9 J	7.32	<107	111 J	16,100	217,000	46.6	6.87 T8
SB-24	10/31/2023	11 - 12.5	1,080	3.23 J	<26.0	408	17.6	209	<195	14,200	248,000	38.5	7.32 T8
SB-24	10/31/2023	15.5 - 17	127	1.90 J	<18.3	431	1.96 J	178	103 J	5,900	52,000	54.8	5.82 T8
SB-25	11/7/2023	2 - 3	<14.1	1.68 J	0.986 J	<28.2	<2.82	122	<106 Q	8,220	21,300	71.0	5.31 T8
SB-25	11/7/2023	4 - 5	<14.1	2.57 J	1.02 J	<28.2	<2.82	123	<106 Q	6,310	26,000	70.8	4.80 T8
SB-25	11/7/2023	8 - 8.8	<11.8	1.78 J	<12.4	14.5 J	1.64 J	36.2 J	<88.4 T8	9,910	6,210	84.8	6.51 T8
SB-25	11/7/2023	11 - 12	<11.7	0.732 J	<11.7	90.6	1.16 J	<58.6	37.2 J T8	9,500	8,980	85.3	5.83 T8
SB-26	11/7/2023	2 - 3	<11.9	7.75 J	<11.9	<23.9	3.12	6,290	<89.6	19,500	13,600	83.7	7.12 T8
SB-26	11/7/2023	4 - 5	<11.5	7.95 J	<11.5	<23.0	2.51	5,880	<86.2	21,400	11,300	87.1	7.45 T8
SB-26	11/7/2023	8 - 9	<11.3	7.06 J	<11.5	28.2	1.79 J	152	<84.8 T8	13,000	11,300	88.4	6.98 T8
SB-26	11/7/2023	11 - 12	<11.3	0.988 J	<11.7	57.4	1.18 J	22.0 J	<85.0 T8	10,200	9,570	88.3	5.52 T8
SB-27	11/7/2023	2 - 3	<12.7	1.32 J	0.907 J	<25.5	4.55	101	<95.6 Q	17,900	13,700	78.5	7.79 T8
SB-27	11/7/2023	4 - 5	<15.0	14.8 J	1.06 J	16.3 J	3.25	394	<112 Q	42,300	33,900	66.7	6.69 T8
SB-27	11/7/2023	8 - 9.1	<11.4	0.998 J	<11.4	116	1.35 J	76.8	<85.2	12,100	10,600	88.0	6.97 T8
SB-27	11/7/2023	9.5 - 10.2	<11.4	<11.4	<11.4	79.3	<2.29	66.2	<85.8 T8	13,000	11,200	87.4	5.48 T8
SB-28	11/6/2023	2 - 3	<12.1	1.94 J	0.868 J	<24.2	<2.42	36.4 J	<90.9 Q	3,650	9,190	82.5	5.45 T8
SB-28	11/6/2023	4 - 5	<13.3	5.30 J	0.958 J	<26.6	<2.66	153	<99.6 Q	8,860	20,900	75.3	4.74 T8
SB-28	11/7/2023	12.5 - 13.5	14.2	1.26 J	0.916 J	175	2.81	85.1	<97.0 Q	8,360	14,600	77.3	5.89 T8
SB-28	11/7/2023	18.5 - 19.8	<12.8	1.19 J	0.924 J	341	2.21 J	51.6 J	76.8 J Q	452J	8,350	78.1	6.33 T8
SB-29	11/6/2023	2 - 3	<13.6	2.43 J P1	0.945 J	<27.1	<2.71	71.8	<102 Q	11,400	22,200	73.8	5.64 T8
SB-29	11/6/2023	4 - 5	<12.1	3.27 J	0.852 J	<24.1	2.41 J	50.2 J	<90.5 Q	21,700	20,300	82.9	7.92 T8
SB-29	11/7/2023	9.5 - 10.5	<11.5	1.02 J	0.844 J	25.1	2.11 J	36.1 J	<86.5 Q	6,750	6,830	86.7	6.00 T8
SB-29	11/7/2023	11 - 12.5	<11.7	0.967 J	0.851 J	13.7 J	1.04 J	<58.3	<87.5 Q	9,850	10,300	85.7	6.07 T8
SB-29	11/7/2023	15.5 - 17	12.3	1.21 J	0.892 J	16.6 J	1.69 J	45.1 J	46.6 J Q	6,810	21,100	81.8	6.51 T8
T1-B1	11/1/2023	--	<11.3	3.04 J	0.711 J	<22.5	<2.25	<56.4	36.0 J	18,200	18,300	88.7	6.93 T8
T1-B2	11/1/2023	--	<11.6	2.19 J	<11.6	329	1.58 J	58.0 J	<87.2	11,900	10,900	86.0	7.59 T8
T2-B1	11/1/2023	--	<11.1	1.06 J	0.690 J	<22.2	<2.22	<55.5	35.5 J	13,400	7,230	90.1	6.48 T8

Table 6. Soil Analytical Data – Other
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Ammonia Nitrogen	Nitrate as Nitrogen	Nitrite as Nitrogen	Chloride	Fluoride	Sulfate	Sulfide	Hardness as Calcium	Total Organic Carbon	Total Solids	pH
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Occupational (RBCss Occ)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Soil Ingestion, Dermal Contact, and Inhalation - Construction Worker (RBCss CW)			--	--	--	--	--	--	--	--	--	--	--
DEQ RBC Leaching to Groundwater (RBCsw)			--	--	--	--	--	--	--	--	--	--	--
T2-B2	11/1/2023	--	<11.5	<11.8	<11.8	604	1.13 J	289	36.9 J	17,100	13,300	86.7	7.03 T8
T2-B3	11/1/2023	--	<11.1	2.49 J	<11.1	264	1.19 J	109	<83.1	11,000	7,850	90.3	8.96 T8
T3-B1	11/1/2023	--	102	3.54 J	0.685 J	<21.4	<2.14	<53.5	33.7 J	14,000	28,200	94.3	6.00 T8
T3-B2	11/1/2023	--	<11.8	0.784 J	<11.9	303	<2.37	75.9	<88.2	9,560	16,000	85.1	7.44 T8
T3-B3	11/1/2023	--	<11.0	<11.0	<11.0	853	<2.20	130	<82.5	3,250	18,700	90.9	6.31 T8
T4-B1	11/1/2023	--	<11.5	6.81 J	0.787 J	<23.7	<2.37	<59.3	<86.3	13,800	29,500	86.9	6.40 T8
T4-B2	11/1/2023	--	<12.3	<12.5	<12.5	923	<2.50	207	196	9,490	30,900	81.6	6.65 T8
T4-B3	11/1/2023	--	<12.2	<12.2	<12.2	462	<2.44	116	97.0	6,390	32,500	82.1	7.22 T8

Notes:

1. Analytical concentrations are presented in milligrams per kilogram (mg/kg) except total solids. Total solids concentrations are presented in percent.
2. Sample depth in feet below ground surface.

Acronyms and Abbreviations:

-- = not applicable, not available, or not analyzed
< = not detected at or greater than the laboratory method detection limit (MDL) or laboratory reporting limit (RL)
* = duplicate sample
DEQ = Oregon Department of Environmental Quality
RBC = risk-based concentration
USEPA = United States Environmental Protection Agency

Laboratory Qualifiers:

B = The same analyte is found in the associated blank.
J = The concentration was detected between the MDL and RL; therefore, the reported concentration is an estimate.
J3 = The associated batch quality control (QC) was outside the established QC range for precision.
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1 = Relative percent difference value not applicable for sample concentrations less than 5 times the reporting limit.
Q = Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should beconsidered minimum values.
T8 = Sample(s) received past/too close to holding time expiration.

Current Analytical Methods:

Samples analyzed by USEPA Method 2540:
Ammonia nitrogen
Samples analyzed by USEPA Method 9034/9030B:
Sulfide
Samples analyzed by USEPA Method 9045D:
pH

Samples analyzed by USEPA Method 9056A:
Chloride
Fluoride
Nitrate as nitrogen
Nitrate as nitrogen
Sulfate

Samples analyzed by USEPA Method 9060A:
Total organic carbon

Table 7. Soil Analytical Data – Grain Size
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

ARCADIS

Sample ID	Sample Date	Sample Depth	Sieve 3.0 inches	Sieve 2.0 inches	Sieve 1.5 inches	Sieve 1.0 inch	Sieve 0.75 inch	Sieve 0.375 inch	Sieve #4	Sieve #10	Sieve #20	Sieve #40	Sieve #60	Sieve #100	Sieve #140	Sieve #200	Hydrometer 1 Passing	Hydrometer 2 Passing	Hydrometer 3 Passing	Hydrometer 4 Passing	Hydrometer 5 Passing	Hydrometer 6 Passing	Hydrometer 7 Passing	Hydrometer 8 Passing
MW-26	11/4/2023	6.5-8	100	100	100	100	100	100	99.8	99.7	99.6	98.3	81.7	40.2	27.6	23.3	19.7	17.6	16.6	14.5	13.5	12.5	10.4	7.3
MW-26	11/4/2023	12.5-14	100	100	100	100	100	100	99.7	99.6	98.5	95.2	81.5	49.9	39.7	36.5	30.7	28.3	27.1	22.4	22.4	21.3	17.7	13
MW-27	11/4/2023	6.5-8	100	100	100	100	100	91.3	87.2	85.9	84.4	82.9	80.2	76.4	74.8	73.9	65.9	64.4	62.8	61.3	58.2	55.1	46.4	35.6
MW-27	11/4/2023	11-12.5	100	100	100	100	90.4	90.4	89.2	88.5	86.9	83	80.5	78	76.8	76	61.7	60.1	60.1	55.2	51.9	48.6	41	29.6
MW-27	11/4/2023	15.5-17	100	100	100	100	82	82	80.1	79.4	78.8	77.1	74.8	70.3	68.3	66.8	54.6	51.9	51.9	47.7	45	42.7	35.9	27.6
MW-28	11/4/2023	2-3	100	100	100	100	100	97.3	97.3	97.2	95.8	94.1	91.7	87.1	84.3	81.6	68.2	64.8	64.8	59.7	54.5	50	41.4	27.6
MW-28	11/4/2023	4-5	100	100	100	100	100	100	100	100	99.3	97.9	96.3	95	94.4	93.8	82.1	80.3	78.4	74.8	71.2	67.5	54.8	42
MW-28	11/4/2023	8-9.5	100	100	100	100	100	100	99.6	98.8	97.2	94.3	90.9	85.1	82.7	81.1	71.6	69.9	68.2	64.8	61.4	56.3	47.8	35.9
MW-28	11/4/2023	11-4	100	100	100	100	100	100	100	99.5	98.9	95.6	85	52.9	46.4	44.3	38	36.6	33.7	29.3	27.8	26.4	22	16.2
MW-28	11/4/2023	17-18.5	100	100	100	100	100	98.4	98	97.9	97.7	97.3	87.1	47.3	43.5	41.8	36.9	33.9	30.8	23.6	19.5	16.5	11.3	8.3
MW-29	11/1/2023	6.5-8	100	100	100	100	100	100	100	99.6	99.4	97.6	93.9	88.4	85.2	82.9	80.2	71.5	71.5	66.3	62.8	57.6	48.9	38.1
MW-29	11/1/2023	11-14	100	100	100	100	100	95.9	95.2	94.3	93.1	88.7	84.2	78.9	76	74.1	62.9	61.3	56.5	51.6	48.4	45.2	37.2	28.8
MW-29	11/1/2023	17-18.5	100	100	100	100	100	100	99.2	99.2	99	96.8	86.3	56.1	48.8	45.7	42.3	39.2	37.6	34.5	31.4	29.8	25.2	20.2
MW-30	11/1/2023	2-3	100	100	100	75.3	75.3	57.8	51	47.3	45.4	41.7	37	30	27.6	26.3	23.7	23	21.7	19.1	18.5	16.5	13.9	11.1
MW-30	11/1/2023	4-5	100	100	100	100	95.1	85.4	75.5	72.6	71.3	67.3	53	22.5	14.3	11.8	8.9	8.2	7.4	6.7	6	5.2	3.8	2.9
MW-31	10/31/2023	4-5	100	100	100	100	100	96.9	95.3	94.6	92.9	86.4	80.4	75.9	74	72.6	58.5	54.9	51.3	44.1	40.5	36.8	27.4	19.8
MW-31	10/31/2023	6.5-8	100	100	100	100	85.1	78.4	75.5	73.3	72	67.3	59	47.6	44.1	42.3	36.1	34.8	33.4	32.1	30.8	28.1	24.1	17.2
MW-31	10/31/2023	12.5-14	100	100	100	100	100	100	100	100	97.2	90.8	86	81.8	80	78.9	60.8	55.9	54.3	49.4	47.7	44.5	34.6	24.5
MW-32	11/6/2023	2-3	100	100	100	100	100	100	100	99.8	98.5	96.5	94.2	91.5	89.7	88.3	61.7	58.5	55.2	51.9	48.7	44.3	36.2	24.7
MW-32	11/6/2023	4-5	100	100	100	100	100	100	100	100	99.9	99.6	99.3	98.9	98.7	98.3	71.4	69.6	67.8	62.6	59.7	54.5	45.7	29.9
MW-32	11/6/2023	7.5-9.5	100	100	100	100	100	100	99.5	98.1	94.9	89.5	85.7	82.9	81.7	80.8	61.2	58.3	56.8	49.6	46.7	40.9	30.7	21.9
MW-32	11/6/2023	12.5-14	100	100	100	100	100	100	100	99.9	99.5	97.6	78.4	49.7	45.8	44.3	39.2	38.1	36.9	34.6	34.6	32.3	27.7	20.8
MW-32	11/6/2023	16-18.5	100	100	100	100	100	100	100	100	99.9	99.3	91.7	39.3	32.7	30.2	23.9	21.5	21.5	19.2	18	16.8	13.2	10.8
MW-33	11/6/2023	2-3	100	100	100	100	100	94.6	92.6	91	87.5	81.7	67.2	45.2	39.8	37.5	33	31.8	29.4	27	24.7	22.3	16.8	10.8
MW-33	11/6/2023	4-5	100	100	100	100	100	84.8	76.6	74.7	66.4	57.8	51	45	41.1	38.1	30.8	28.4	24.8	18.8	16.4	14	9.7	6.1
MW-33	11/6/2023	6.5-8	100	100	100	100	100	84.4	74	69.6	60.9	53.8	47.9	42.1	38.7	35.7	29	26.9	24.8	19.6	17.5	14.3	10.5	6.4
MW-33	11/6/2023	12.5-14	100	100	100	100	91.1	82.1	70.6	65.7	62	55.7	49.7	44.1	40.8	38.1	30.7	28.8	26.9	22	20.1	18.1	13.7	8.8
MW-33	11/6/2023	15.5-17	100	100	100	100	100	90.3	87	85.6	84.7	82.6	75.4	40.6	34	31.4	28.8	25.4	23.2	21	18.7	17.6	14.7	10.2
MW-34	11/6/2023	2-3	100	100	100	100	100	90.9	78	69.5	61.7	55.1	48.5	30.2	24.4	21.6	15.7	14.1	13.3	10.8	9.1	8.3	5.8	4.2
MW-34	11/6/2023	4-5	100	100	100	100	100	84.9	63.3	52.3	43.5	36.8	31.7	26.6	23.4	21	15.7	14.1	12.5	9.8	8.7	7.1	5.4	3.3
MW-34	11/6/2023	12.5-14	100	100	100	100	87.2	73.3	69	65.4	61.9	58.5	55.4	52	50.8	49.8	44.7	42.5	40.2	36.8	33.9	30.5	24.9	18.1
MW-34	11/6/2023	17-18.5	100	100	100	100	100	85.4	76.4	72.3	68.3	65.7	59	41.4	37.5	35.6	31	29.7	28.5	27.2	25.2	23.9	20.2	15.1
SB-17	11/1/2023	1.5-2.5	100	100	100	100	100	71.6	44.2	30.8	22	17.3	14.3	11.8	10.4	9.2	7.3	6.3	5.4	3.5	2.9	2.3	1.6	0.9
SB-17	11/1/2023	4-5	100	100	100	100	100	82.9	70.4	62.5	58.5	46.4	25.1	10.9	7	5.5	3.1	3.1	2.5	1.9	1.9	1.2	1.4	0.7
SB-18	11/2/2023	2-4	100	100	100	100	97	71.2	60.4	53	50.1	41.5	28.5	15.2	10.6	8.5	7	6.5	5.4	3.8	3.8	3.2	2.8	2.3
SB-18	11/2/2023	4-5	100	100	100	100	100	87.2	72.9	63	57.9	46.3	29.9	14.2	9.1	7.1	5.7	5.1	3.8	3.2	3.2	3.2	2.7	2
SB-18A	11/7/2023	2-3	100	100	100	100	100	92.2	82.7	76.6	71.2	61	44.5	22.3	14.9	12	8.6	7.7	6.9	6	5.2	4.3	2.6	1.8
SB-18A	11/7/2023	4-5	100	100	100	100	100	88.2	81	75.9	72.7	63.5	50.7	35.7	30.9	28.7	25.1	24	22.8	20.5	19.4	18.5	15.1	11.3
SB-19	11/2/2023	2-3	100	100	100	100	100	100	99.1	98.2	97.8	93.3	84.8	77.6	61.1	56	53.6	47	44.7	43.6	40.1	39	36.7	30.1
SB-19A	11/7/2023	2-3	100	100	100	100	100	98.1	98.1	98.1	96	92.9	89.7	82.8	80.6	79.3	70.7	69.2	69.2	66.1	63.1	58.5	49.4	37.2
SB-19A	11/7/2023	4-5	100	100	100	100	100	100	99.9	99.5	99.1	97.8	94.2	82.5	80.6	79.2	73.3	67.8	65.9	60.3	56.6	51	43.6	34.3
SB-20	11/2/2023	2-3	100	100	100	100	95	93.6	90.9	89.9	89.1	88.1	81.7	27.7	15.7	13.2	12.3	10.4	10.4	9.5	8.5	8.5	7.6	5.6
SB-20	11/2/2023	4-5	100	100	100	100	100	99.2	97.4	97	95.5	91.3	87	81.3	79.3	77.3	65.3	62.5	59.7	54.2	51.4	48.7	40.4	30.4
SB-21	11/2/2023	4-5	100	100	100	100	100	100	100	99.5	98	90	75.9	45.8	36.3	31.2	31.6	28.3	23.8	23.8	22.7	5.8	0	0
SB-21	11/2/2023	8-9.5	100	100	100	100	100	94.2	83.2	75.7	64.8	54.9	42.2	31	27.7	25.7	21.1	19.9	18.8	16.6	14.3	13.2	10.1	5.6

Table 7. Soil Analytical Data – Grain Size
Former Chevron Bulk Plant No. 1001838
10 Fifth Street
Astoria, Oregon

Sample ID	Sample Date	Sample Depth	Sieve 3.0 inches	Sieve 2.0 inches	Sieve 1.5 inches	Sieve 1.0 inch	Sieve 0.75 inch	Sieve 0.375 inch	Sieve #4	Sieve #10	Sieve #20	Sieve #40	Sieve #60	Sieve #100	Sieve #140	Sieve #200	Hydrometer 1 Passing	Hydrometer 2 Passing	Hydrometer 3 Passing	Hydrometer 4 Passing	Hydrometer 5 Passing	Hydrometer 6 Passing	Hydrometer 7 Passing	Hydrometer 8 Passing
SB-22	11/2/2023	2-3	100	100	100	100	91.7	70.3	63.7	60.6	57.7	54.7	49	22.9	15.3	13.1	11.4	10.1	9.5	7.6	7	6.3	5.8	3.9
SB-22	11/3/2023	6.5-9.5	100	100	100	100	100	98.3	98.3	98	92.7	77.7	62.7	52.9	47.6	44	37.9	32.2	29.3	23.6	21	16.8	8.5	5.6
SB-22	11/3/2023	11-12.5	100	100	100	100	100	90.8	79.9	74.9	68.4	57.6	49.1	42.3	38.4	35.6	29	25.4	24.3	18.6	16.2	13.9	9.4	4.7
SB-22	11/2/2023	4-5	100	100	100	100	96.8	83.3	63.6	53.6	45	39.5	35	29.5	26.5	24.4	18.6	17.4	16.3	14	12.8	11.1	9.3	7.5
SB-23	11/1/2023	2-3	100	66.3	66.3	66.3	59.4	49.6	44.5	42.4	41	37.4	33	27.9	26	24.7	21.2	20.5	19.9	17.9	16.6	14.6	11.3	8.5
SB-23	11/1/2023	4-5	100	100	100	100	100	92.7	87	84.7	83.3	76.4	66.2	57.4	54	51.9	45.4	45.4	43.9	39.4	36.4	34.9	28.9	21
SB-23[a]	11/4/2023	11-12.5	100	100	100	100	100	95.4	94.4	94.2	93.3	82.6	55.5	33.6	28.4	26.2	21.7	20.5	18.1	15.7	14.5	13.3	10.9	7.3
SB-23[a]	11/4/2023	17-18.5	100	100	100	100	92.1	86.7	86.6	86.4	86.3	84.5	74.6	39	34	31.5	25.6	23.5	22.4	17.1	15	11.8	8.6	5.4
SB-24	10/31/2023	4-5	100	100	100	100	100	92.9	92.4	92.1	91.3	89.3	87.5	85.7	84.8	84	73.9	73.9	72.3	69.2	67.6	63	56.4	43.6
SB-24	10/31/2023	8-9.5	100	100	100	100	100	100	100	99	98.4	97.1	95.9	94.8	92.8	90.2	80.9	77.7	76.1	71.3	68.1	63.2	53.2	38.4
SB-24	10/31/2023	11-12.5	100	100	100	100	100	100	100	99.9	99.2	97	94.8	92.5	90.4	88.7	69.1	67.4	64	57.2	53.7	48.6	37.9	27.3
SB-24	10/31/2023	15.5-17	100	100	100	100	100	100	100	100	100	99.7	97.7	83.3	79.9	78.4	75.5	65	59.8	47.6	39	32	22.9	17.3
SB-25	11/7/2023	2-3	100	100	100	100	100	100	99.2	98.8	97.9	94	90.4	88	86.7	85.7	75.3	73.8	73.8	69.1	65.9	61.2	51.8	39.9
SB-25	11/7/2023	4-5	100	100	100	100	100	100	100	100	97.2	91.8	88.1	86	85	84.2	72	72	72	68.4	64.8	61.2	52.2	40.3
SB-26	11/7/2023	2-3	100	100	100	100	100	95.6	82.7	78.2	76.3	62.6	50.3	39.6	36.3	34.7	32	30.2	29.2	26.4	25.5	23.7	19	14.4
SB-26	11/7/2023	4-5	100	100	100	100	100	80.5	73.7	72.4	70.5	54.8	41.8	32.9	30	28.4	25.9	23.2	22.4	20.6	20.6	18.8	15.3	10.9
SB-27	11/2/2023	2-3	100	100	100	85.7	85.7	69	59.6	56.8	54.8	50.4	44.4	34.6	31.2	29.5	26.5	23.8	23.8	22.1	21.2	20.3	16.8	13.1
SB-27	11/2/2023	4-5	100	100	100	100	100	100	100	100	99.8	98.9	96.8	93.7	92.2	91.2	81	79.2	79.2	75.4	72.1	68.4	57.6	44.6
SB-27[b]	11/7/2023	8-9	100	100	100	100	100	100	100	100	99.8	99.2	96.5	82.3	67.3	58.1	48.9	45.9	43	41.5	40	37.1	32.6	25.8
SB-27[b]	11/7/2023	9.5-10.2	100	100	100	100	100	84.1	79.9	75.1	68.1	56.4	43.4	34.3	30.7	28.2	25.6	22.7	21.8	19	18	16.1	13.3	9.9
SB-28	11/6/2023	2-3	100	100	100	100	100	96.6	94.3	93.8	93.5	85.3	60.4	42.7	36.7	32.7	25.2	23.1	21.1	17.4	15.4	13.3	10.3	7.2
SB-28	11/6/2023	4-5	100	100	100	100	100	94.9	83.9	74.5	69.8	63.7	57.6	51	48.7	47	42.8	39.5	39.5	36.1	33.8	32.7	27.1	21.5
SB-29	11/6/2023	2-3	100	100	100	100	100	88.6	84.6	81.8	79.3	75.3	72.2	70.2	69.4	68.5	59	57.7	57.7	55	51	48.3	40.3	29.6
SB-29	11/6/2023	4-5	100	100	100	100	100	95.6	86.3	80.1	76.6	65.9	57	51.6	48.2	44.7	36	34.8	33.6	31.2	28.8	26.5	22.9	17.3

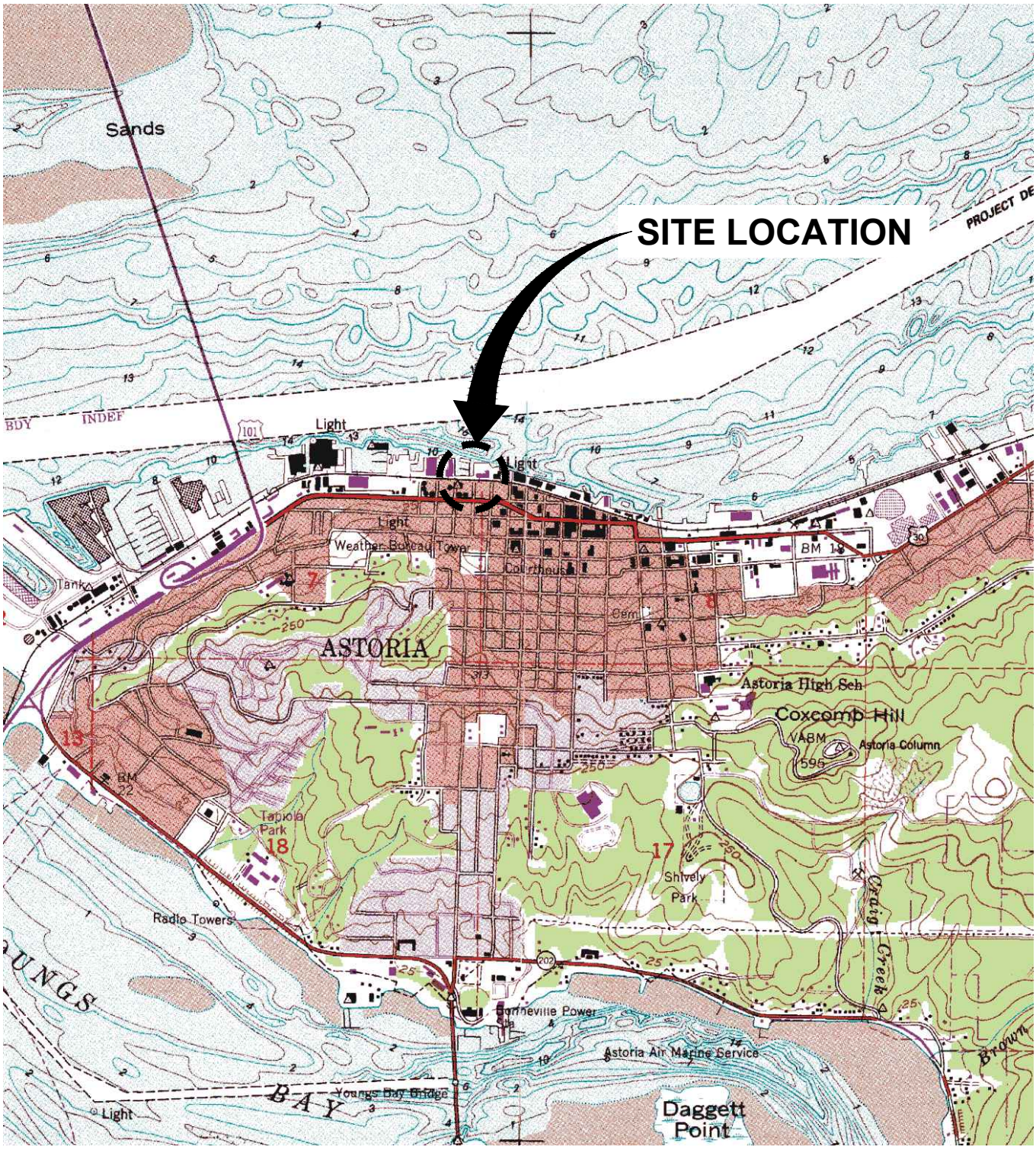
Notes:

1. Grain size results are presented in percent.
2. Samples analyzed by ASTM International (ASTM) Method ASTM D6913/D7928.

[a] Sample ID listed as MW instead of SB in the laboratory report, table is correct.

[b] Sample includes incorrect sample depth on laboratory report, depth in table is correct.

Figures

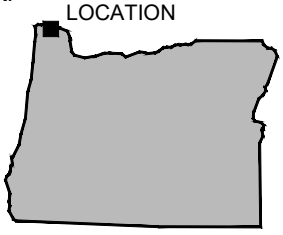


REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., ASTORIA, OREGON-WASHINGTON, 1949, PHOTOREVISED 1984.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.

AREA LOCATION



OREGON

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON

UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

SITE LOCATION MAP

ARCADIS

FIGURE 1

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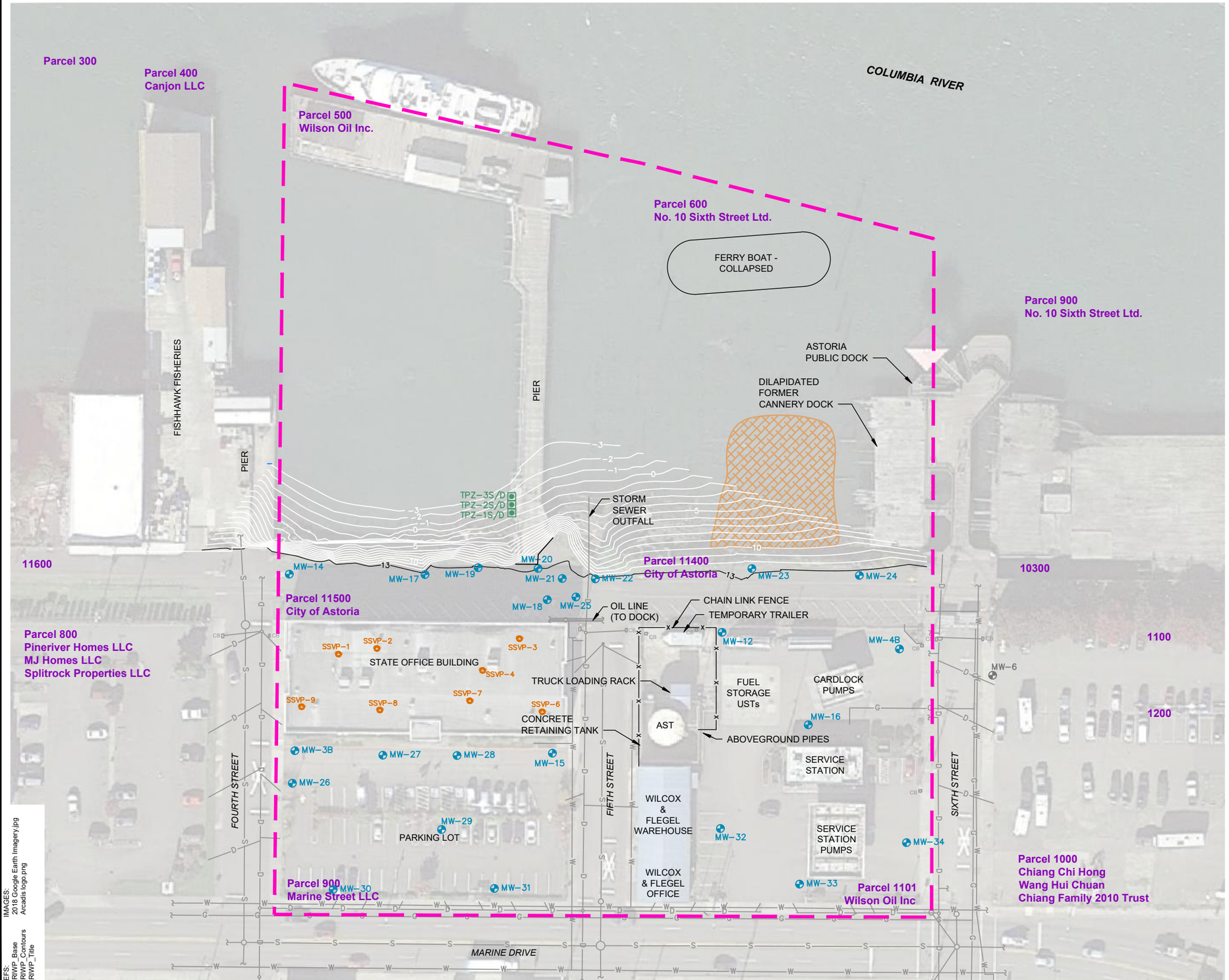

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SUB-SLAB VAPOR PIN LOCATION
- TROLLEY TRACKS
- ELEVATION CONTOUR (FT NGVD29)
- STORM SEWER
- SANITARY SEWER
- WATER SERVICE
- GAS SERVICE
- ELECTRIC SERVICE
- APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON.
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. THE *TOURIST NO. 2* CAPSIZED ON JULY 28, 2022, RELEASING APPROXIMATELY 525 GALLONS OF DIESEL INTO THE COLUMBIA RIVER WITHIN THE AREA OF INTEREST. INITIAL RESPONSE, OVERSEEN BY THE UNITED STATES COAST GUARD, WAS COMPLETED ON AUGUST 8, 2022. AS OF OCTOBER 2022, THE FERRY WAS REMOVED AND INITIAL SPILL CONTAINMENT WAS COMPLETED.

ABBREVIATIONS:

- AST = ABOVE GROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- FT NGVD88 = FEET NATIONAL GEODETIC VERTICAL DATUM OF 1988

0 70' 140'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

SITE FEATURES

ARCADIS

FIGURE 2

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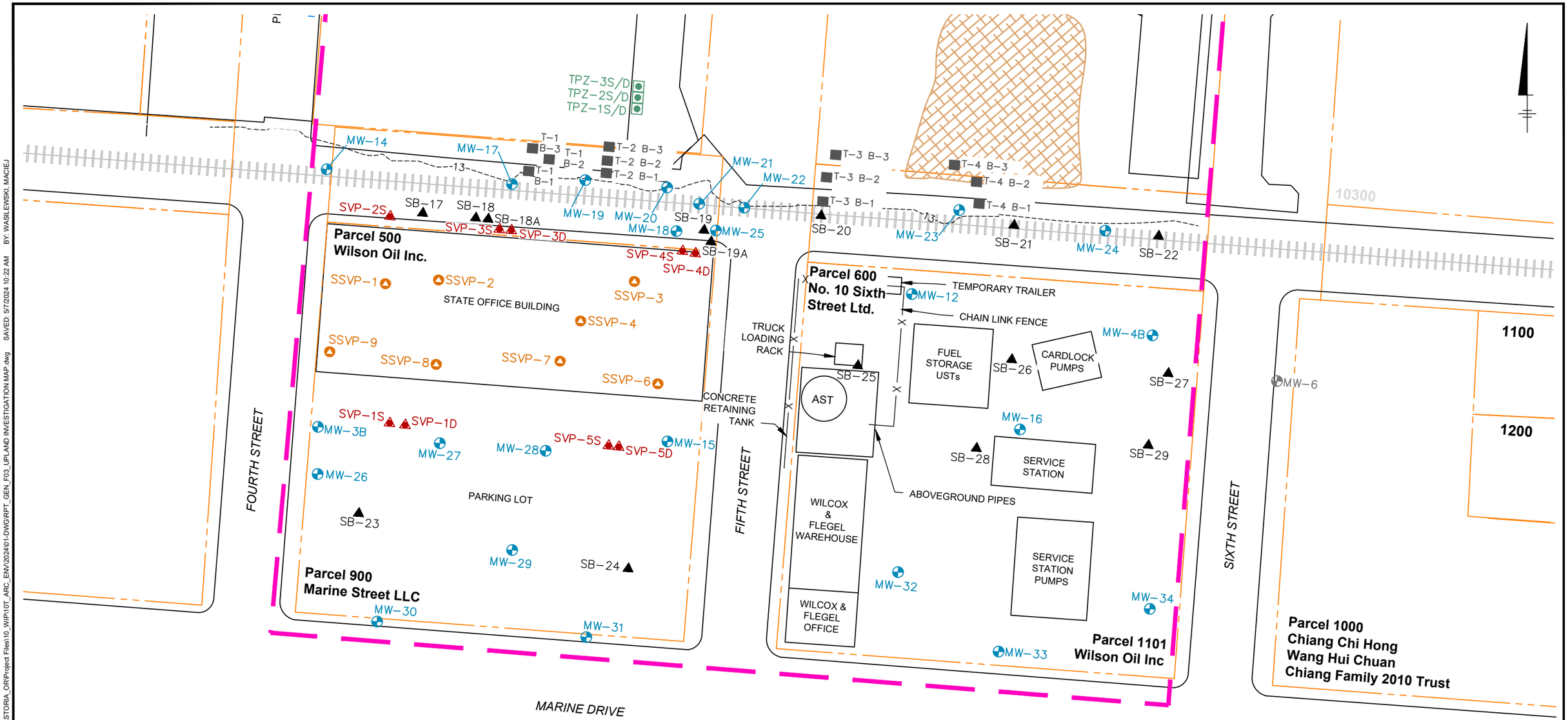

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SOIL BORING
- BANK SAMPLE
- SUB-SLAB PIN LOCATION
- SOIL VAPOR PROBE LOCATION
- TROLLEY TRACKS
- ---------13--------- SHORELINE ELEVATION (FT NGVD 29)
- APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. THE *TOURIST NO. 2* CAPSIZED ON JULY 28, 2022, RELEASING APPROXIMATELY 525 GALLONS OF DIESEL INTO THE COLUMBIA RIVER WITHIN THE AREA OF INTEREST. INITIAL RESPONSE, OVERSEEN BY THE UNITED STATES COAST GUARD, WAS COMPLETED ON AUGUST 8, 2022. AS OF OCTOBER 2022, THE FERRY WAS REMOVED AND INITIAL SPILL CONTAINMENT WAS COMPLETED.

ABBREVIATIONS:

- AST = ABOVEGROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- NGVD 29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929

0 50' 100'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

UPLAND INVESTIGATION MAP

ARCADIS

FIGURE 3

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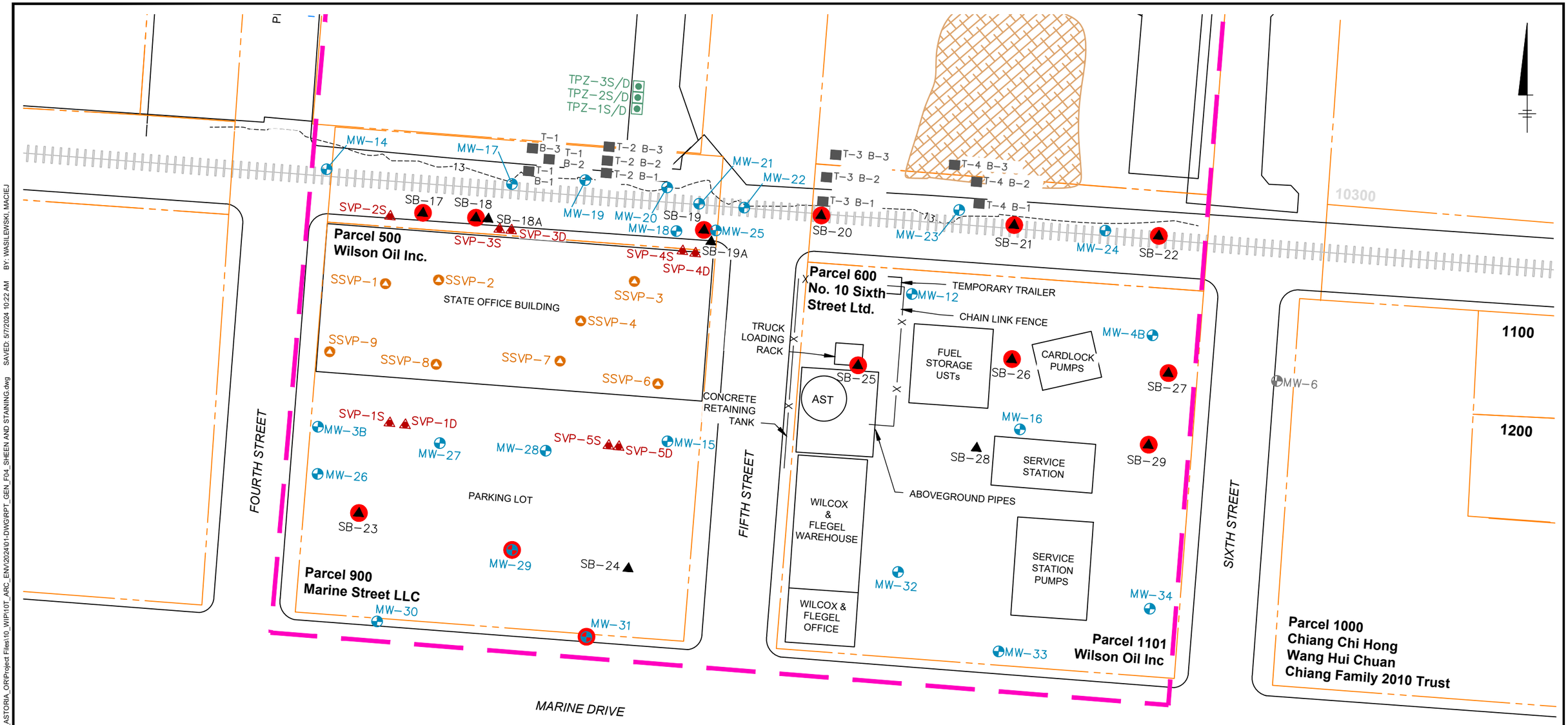

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SOIL BORING
- BANK SAMPLE
- SUB-SLAB PIN LOCATION
- SOIL VAPOR PROBE LOCATION
- TROLLEY TRACKS
- ---------13--------- SHORELINE ELEVATION (FT NGVD29)
- APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS
- SHEEN PRESENT IN BORINGS

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. THE *TOURIST NO. 2* CAPSIZED ON JULY 28, 2022, RELEASING APPROXIMATELY 525 GALLONS OF DIESEL INTO THE COLUMBIA RIVER WITHIN THE AREA OF INTEREST. INITIAL RESPONSE, OVERSEEN BY THE UNITED STATES COAST GUARD, WAS COMPLETED ON AUGUST 8, 2022. AS OF OCTOBER 2022, THE FERRY WAS REMOVED AND INITIAL SPILL CONTAINMENT WAS COMPLETED.

ABBREVIATIONS:

- AST = ABOVEGROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- NGVD 29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929

0 50' 100'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

SHEEN/STAINING MAP

ARCADIS

FIGURE 4

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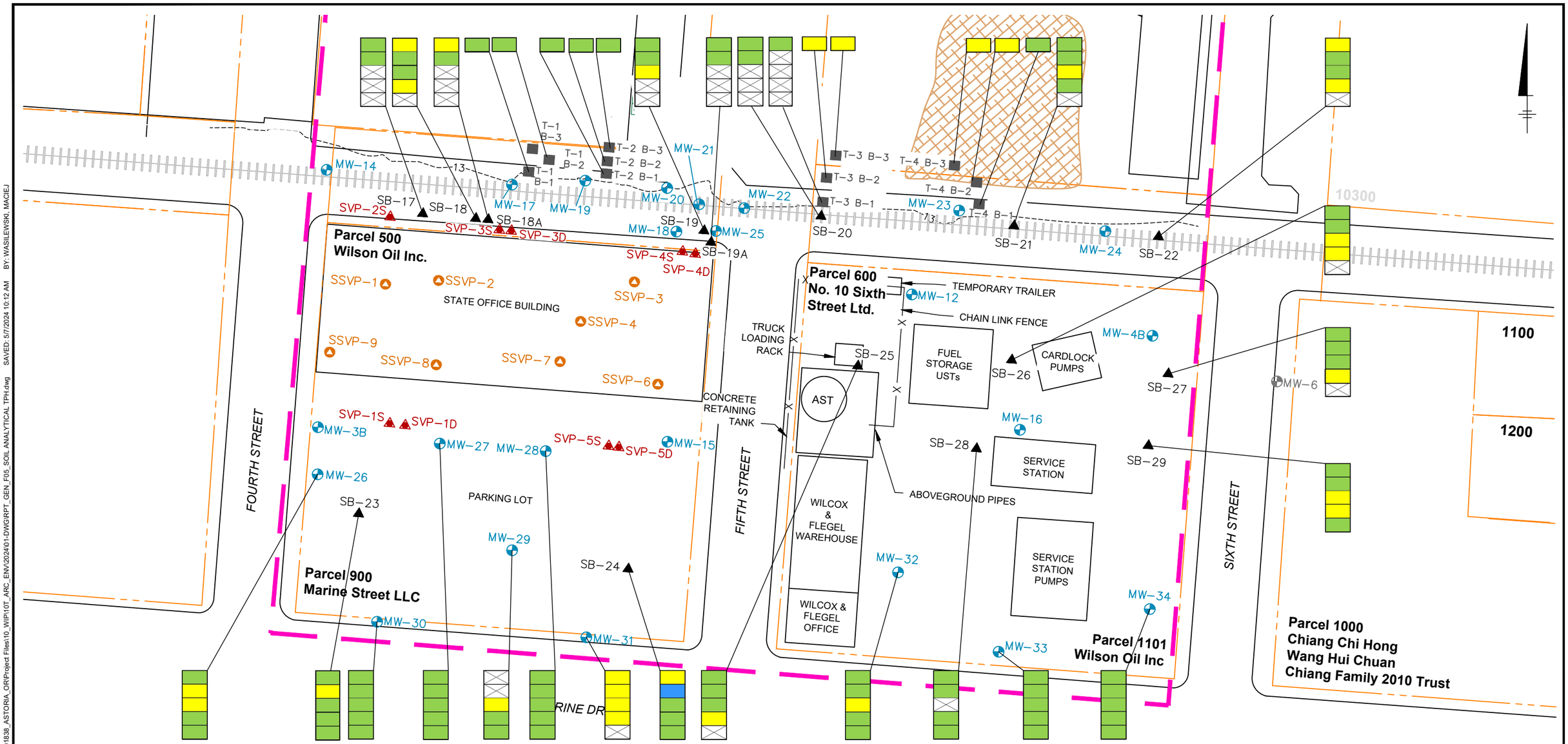

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SOIL BORING
- BANK SAMPLE
- SUB-SLAB PIN LOCATION
- SOIL VAPOR PROBE LOCATION
- TROLLEY TRACKS
- ---------13--------- SHORELINE ELEVATION (FT NGVD 29)
- APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS
- CONSTITUENT NOT ANALYZED FOR GIVEN DEPTH
- < MINIMUM APPLICABLE RBC
- >RBCsw
- > RBCss Occ, RBCsw (IF APPLICABLE)
- > RBCss CW, RBCsw (IF APPLICABLE)

SCREENING LEVELS (mg/kg)

	RBCsw	RBCss Occ	RBCss CW
TPH-DRO	130	14,000	4,600

DEPTH INTERPRETATION KEY:

0-3 feet bgs
3-5 feet bgs
5-10 feet bgs
10-15 feet bgs
15-20 feet bgs

ABBREVIATIONS:

- AST = ABOVEGROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- NGVD 29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929
- bgs = BELOW GROUND SURFACE
- TPH-DRO = TOTAL PETROLEUM HYDROCARBONS AS DIESEL-RANGE ORGANICS

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON.
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. ANALYTICAL CONCENTRATIONS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM (mg/kg).
5. TOTAL PETROLEUM HYDROCARBONS (TPH) WERE ANALYZED AND COMPARED TO RISK-BASED CONCENTRATIONS (RBCs) FOR TPH CONSTITUENTS THAT EXCEEDED RBCS FOR LEACHING TO GROUNDWATER (RBCsw), SOIL INGESTION, DERMAL CONTACT, AND INHALATION FOR OCCUPATIONAL (RBCssOcc), AND DERMAL CONTACT AND INHALATION FOR CONSTRUCTION WORKERS (RBCss CW).

0 50' 100'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

SOIL ANALYTICAL MAP - TOTAL PETROLEUM HYDROCARBONS

ARCADIS

FIGURE 5

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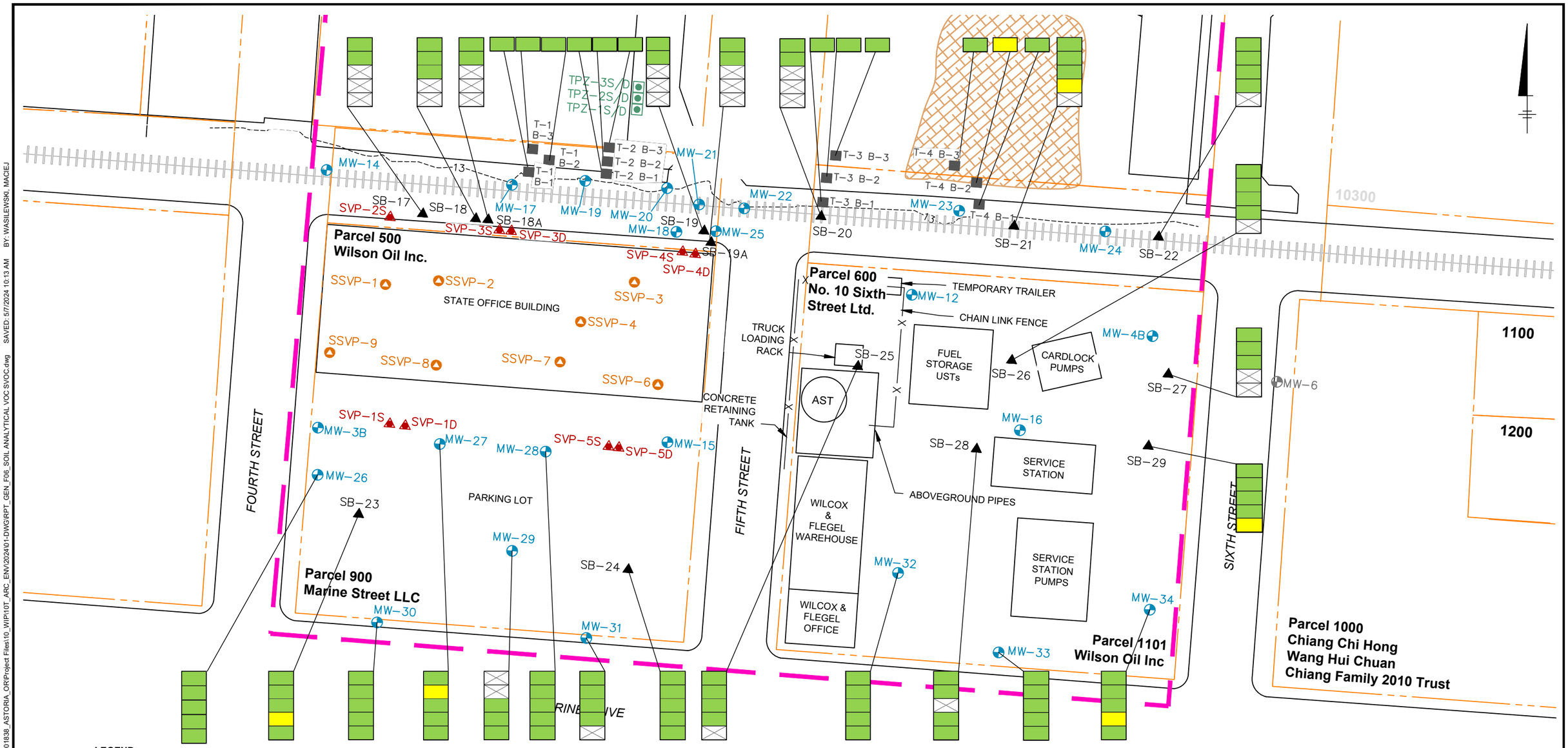

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SOIL BORING
- BANK SAMPLE
- SUB-SLAB PIN LOCATION
- SOIL VAPOR PROBE LOCATION
- TROLLEY TRACKS
- ---------13--------- SHORELINE ELEVATION (FT NGVD29)
- APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS
- CONSTITUENT NOT ANALYZED FOR GIVEN DEPTH
- < MINIMUM APPLICABLE RBC
- >RBCsw
- > RBCss Occ, RBCsw (IF APPLICABLE)
- > RBCss CW, RBCsw (IF APPLICABLE)

DEPTH INTERPRETATION KEY:

0-3 feet bgs
3-5 feet bgs
5-10 feet bgs
10-15 feet bgs
15-20 feet bgs

SCREENING LEVELS (mg/kg)

	RBCsw	RBCss Occ	RBCss CW
B	0.1	37	380
N	0.34	23	580
EDC	0.013	16	200
B(a)p	--	2	17

ABBREVIATIONS:

- AST = ABOVE GROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- NGVD29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929
- bgs = BELOW GROUND SURFACE
- -- = NOT APPLICABLE
- B = Benzene
- B(a)P = benzo(a)pyrene
- EDC = ethylene dichloride
- N = NAPHTHALENE

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON.
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. UTILITY LOCATIONS DIGITIZED FROM DRAWINGS PROVIDED BY THE CITY OF ASTORIA AND ARE APPROXIMATE.
5. ANALYTICAL CONCENTRATIONS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM (mg/kg).
6. VOLATILE ORGANIC COMPOUNDS (VOCs) and SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) WHICH EXCEEDED RISK-BASED CONCENTRATIONS (RBCs) FOR LEACHING TO GROUNDWATER (RBCsw),OCCUPATIONAL WORKER SOIL INJESTION (RBCss Occ), AND CONSTRUCTION WORKER SOIL INJESTION (RBCss CW)DERMAL CONTACT, AND INHALATION (RBCSS).

0 50' 100'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

SOIL ANALYTICAL MAP - VOCs AND SVOCs

ARCADIS

FIGURE 6

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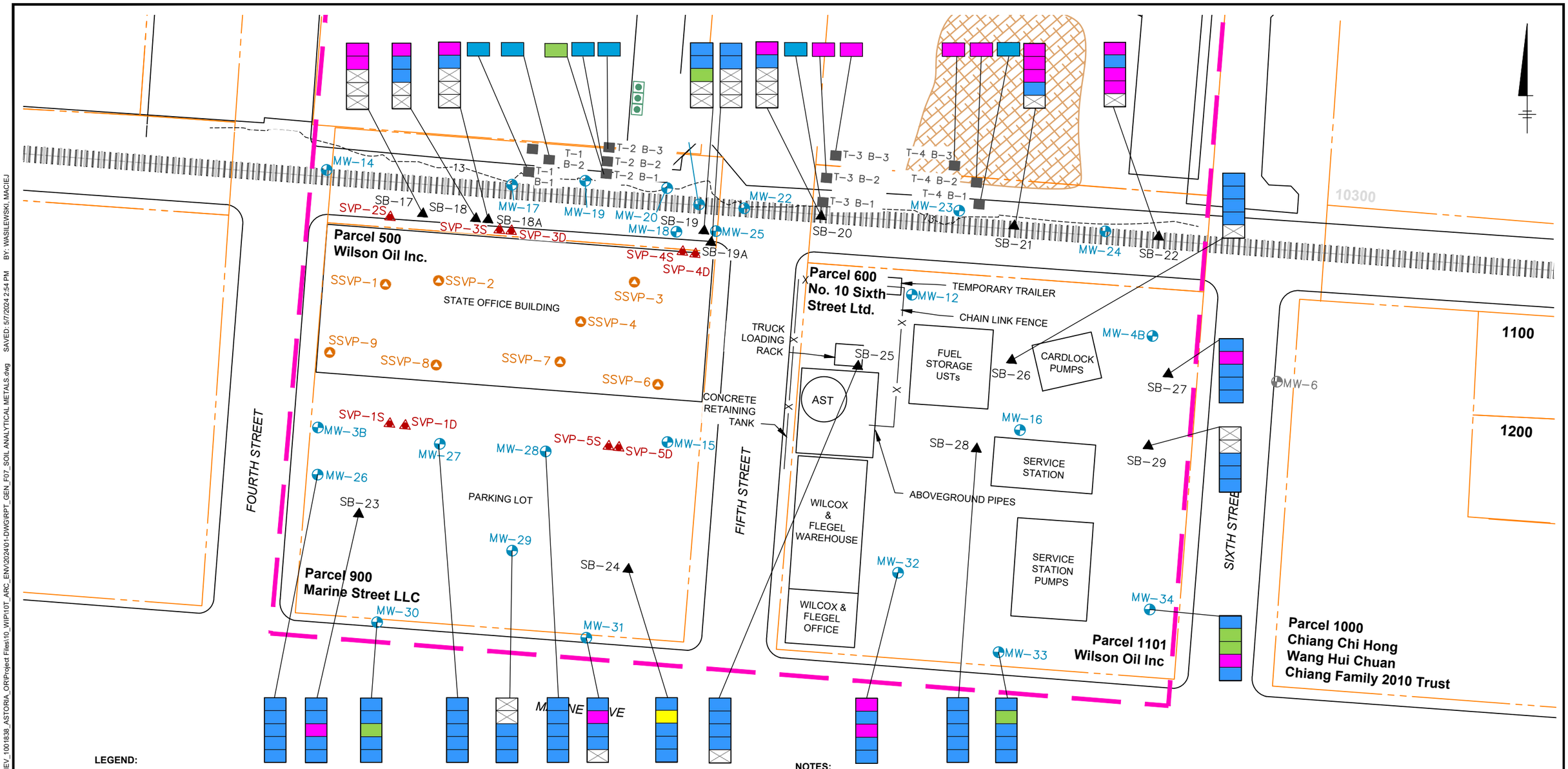

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SOIL BORING
- BANK SAMPLE
- SUB-SLAB PIN LOCATION
- SOIL VAPOR PROBE LOCATION
- TROLLEY TRACKS

---13--- SHORELINE ELEVATION (FT NGVD29)

APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS

CONSTITUENT NOT ANALYZED FOR GIVEN DEPTH

< MINIMUM APPLICABLE RBC

>RBCsw

> RBCss Occ, RBCsw (IF APPLICABLE)

> RBCss CW, RBCsw (IF APPLICABLE)

> RBCss CW, RBCss Occ, AND RBCsw (IF APPLICABLE)

DEPTH INTERPRETATION KEY:

0-3 feet bgs
3-5 feet bgs
5-10 feet bgs
10-15 feet bgs
15-20 feet bgs

SCREENING LEVELS (mg/kg)

	RBCsw	RBCss Occ	RBCss CW
As	--	2	15
Pb	30	800	800

ABBREVIATIONS:

- AST = ABOVEGROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- NGVD 29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929
- bgs = BELOW GROUND SURFACE
- -- = NOT APPLICABLE
- AS = ARSENIC
- PB = LEAD

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON.
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. ANALYTICAL CONCENTRATIONS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM (mg/kg).
5. METALS WERE ANALYZED AND COMPARED TO RISK-BASED CONCENTRATIONS (RBCs) FOR METALS CONSTITUENTS THAT EXCEEDED RBCS FOR LEACHING TO GROUNDWATER (RBCsw), SOIL INGESTION, DERMAL CONTACT, AND INHALATION FOR OCCUPATIONAL (RBCss Occ), AND DERMAL CONTACT AND INHALATION FOR CONSTRUCTION WORKERS (RBCss CW).

0 50' 100'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

SOIL ANALYTICAL MAP - METALS

ARCADIS

FIGURE 7

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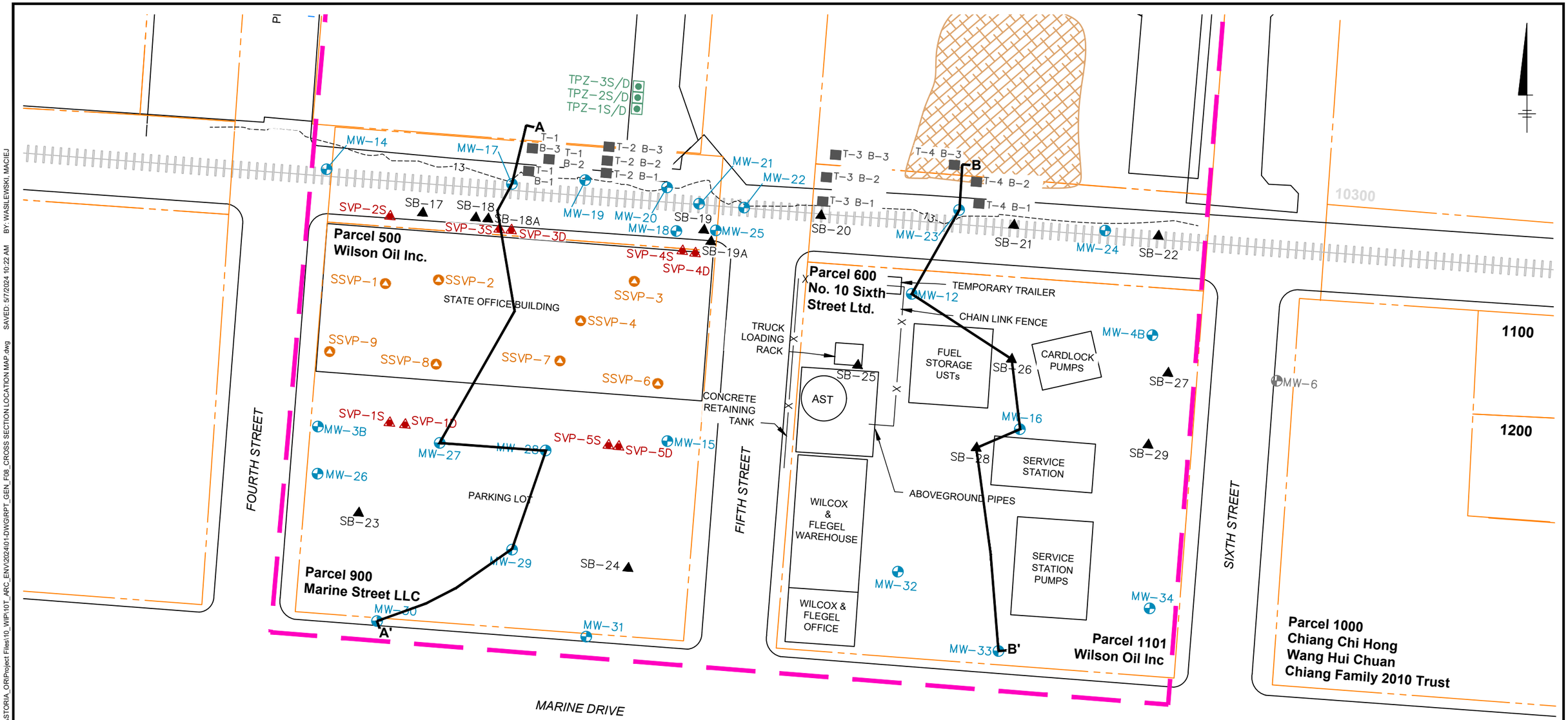

LEGEND:

- AREA OF INTEREST
- PARCEL LINES
- MONITORING WELL
- ABANDONED WELL
- TEMPORARY PIEZOMETER
- SOIL BORING
- BANK SAMPLE
- SUB-SLAB PIN LOCATION
- SOIL VAPOR PROBE LOCATION
- TROLLEY TRACKS
- ---------13--------- SHORELINE ELEVATION (FT NGVD 29)
- APPROXIMATE EXTENT OF OBSERVED METAL DEPOSITS
- A ——— A' CROSS SECTION LOCATION

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS WHICH WERE COMPLETED ON NOVEMBER 9 AND 10, 2023 BY OTAK OF PORTLAND, OREGON
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. THE *TOURIST NO. 2* CAPSIZED ON JULY 28, 2022, RELEASING APPROXIMATELY 525 GALLONS OF DIESEL INTO THE COLUMBIA RIVER WITHIN THE AREA OF INTEREST. INITIAL RESPONSE, OVERSEEN BY THE UNITED STATES COAST GUARD, WAS COMPLETED ON AUGUST 8, 2022. AS OF OCTOBER 2022, THE FERRY WAS REMOVED AND INITIAL SPILL CONTAINMENT WAS COMPLETED.

ABBREVIATIONS:

- AST = ABOVEGROUND STORAGE TANK
- UST = UNDERGROUND STORAGE TANK
- NGVD 29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929

0 50' 100'

GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

CROSS-SECTION LOCATION MAP

ARCADIS

FIGURE 8

C:\Users\mwasilewski\DCACCDocs\Arcadis ACC US\AUS-99999999-CHEV_10001838_ASTORIA_ORProject Files\10_WIP\10T_ARC_ENV\202401-DWG\RPT_GEN_F08_CROSS SECTION LOCATION MAP.dwg SAVED: 5/7/2024 10:22 AM BY: WASILEWSKI, MACIEJ
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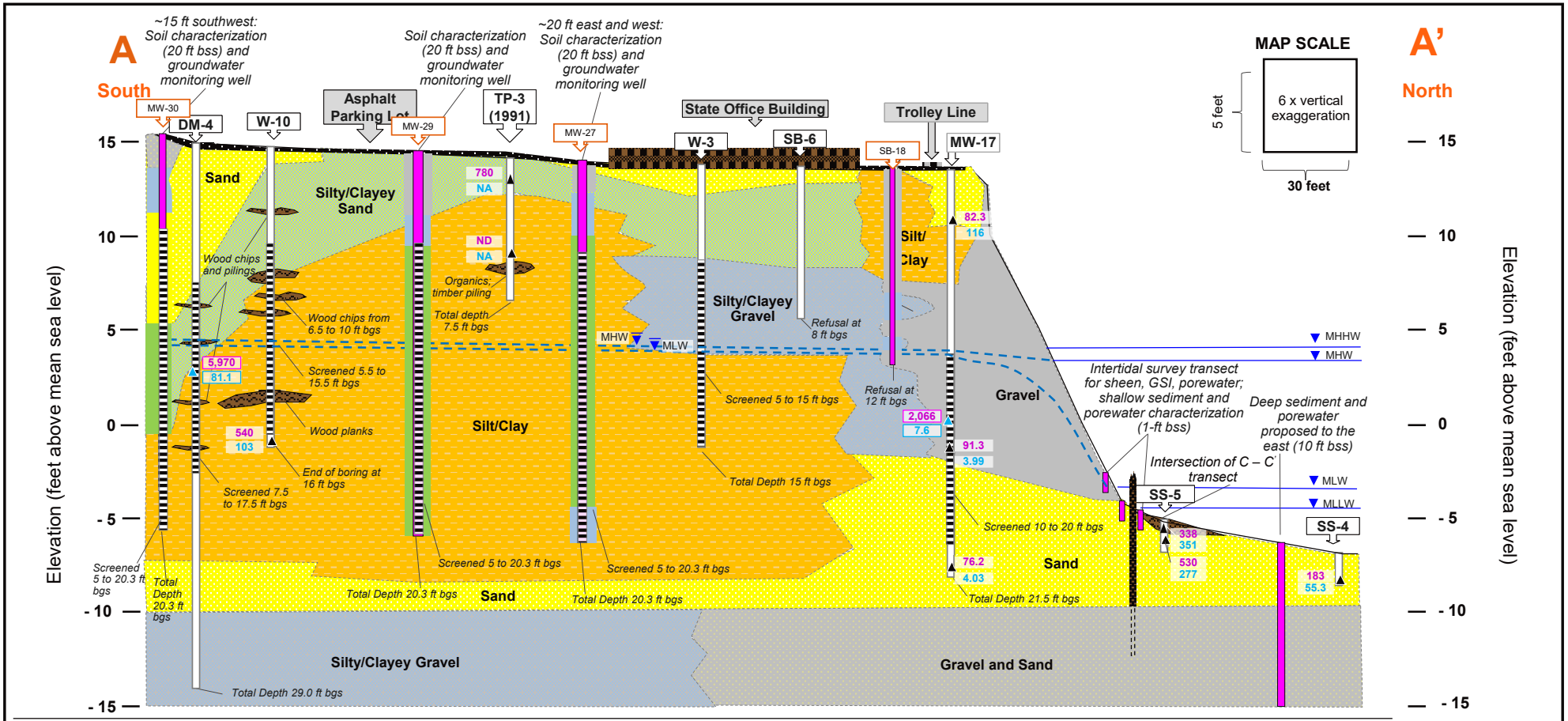


LEGEND

- Gravel; Sandy Gravel
- Silty/Clayey Gravel
- Sand
- Silty/Clayey Sand
- Silt/Clay
- Wood Debris

DM-4 — Location ID

Trolley Line — Feature Description

Italics — Investigation notes

Asphalt cover

Proposed investigation

Estimated extent or contact

Building footing (shaded if historical)

Wooden piling (locations approximate)

ANALYTICAL

- Historical investigation
- Mean groundwater level
- Historical soil/sediment sample
  - 338 Total TPH concentration (mg/kg)
  - 351 Lead concentration (mg/kg)
- Mean surface water level
- Well screen interval
- Historical groundwater sample
  - 2,066 Most recent total TPH concentration (µg/L)
  - 7.6 Total lead concentration (µg/L)

NOTES

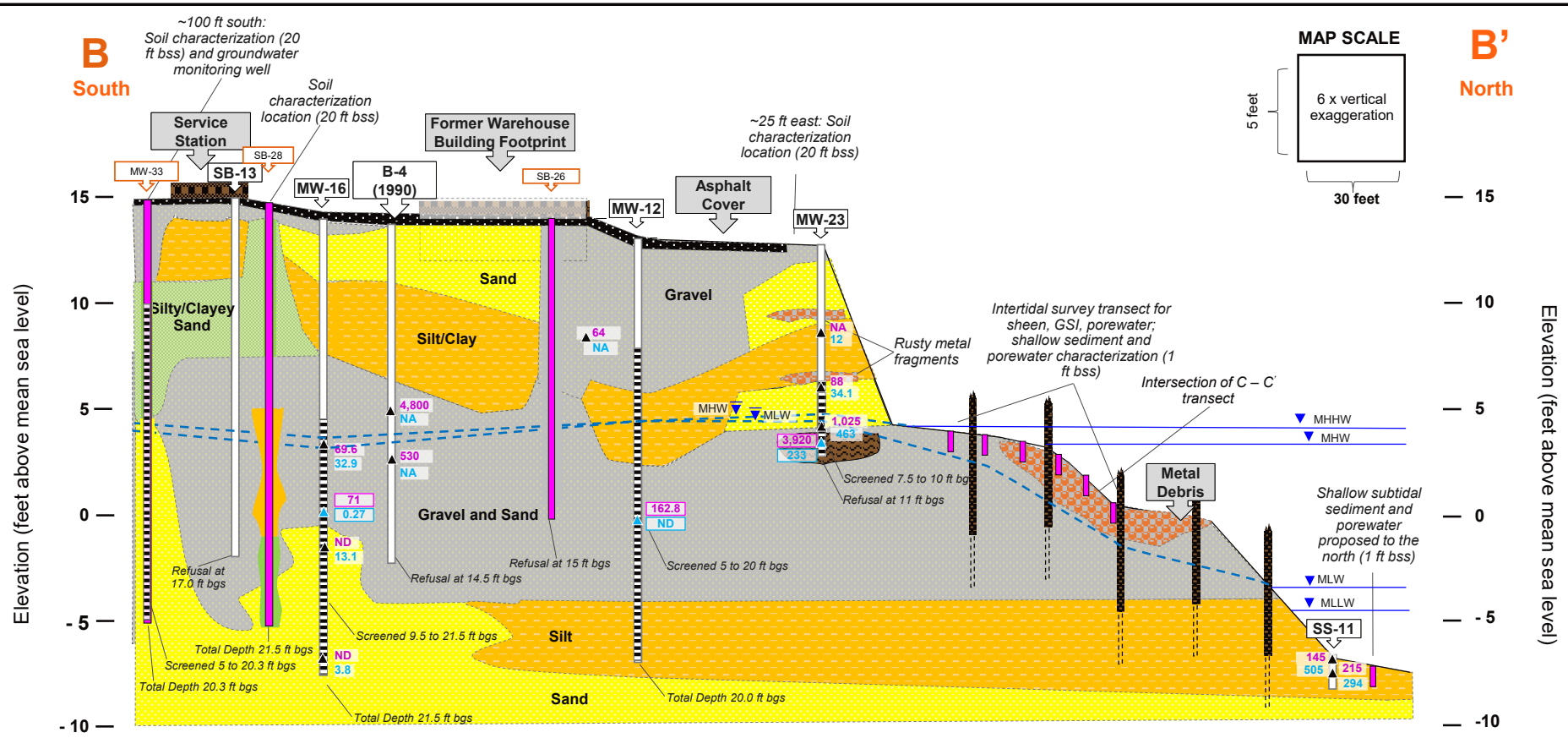
1. Preliminary conceptual cross-section; lithologic contacts estimated where not logged.
2. Cross section not to scale.
3. µg/L = micrograms per liter
4. bgs = below ground surface
5. bss = below sediment surface
6. ft = foot/feet
7. GSI = groundwater and surface water interface
8. mg/kg = milligrams per kilogram
9. ND = not detected
10. NM = not measured
11. MHW = mean high water
12. MHHW = mean higher high water
13. MLW = mean low water
14. MLLW = mean lower low water
15. TPH = total petroleum hydrocarbons

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

CROSS SECTION A-A'

ARCADIS

FIGURE 9



LEGEND

- Gravel; Sandy Gravel
- Silty/Clayey Gravel
- Sand
- Silty/Clayey Sand
- Silt/Clay
- Wood Debris
- Weathered Metal Debris

MW-16 — Location ID

Service Station — Feature Description

Italics — Investigation notes

Asphalt cover

Proposed investigation

Estimated extent or contact

Building footing (shaded if historical)

Wooden piling (locations approximate)

ANALYTICAL

- Historical investigation
- Mean groundwater level
- Historical soil/sediment sample
  - 215 Total TPH concentration (mg/kg)
  - 505 Lead concentration (mg/kg)
- Mean surface water level
- Well screen interval
- Historical groundwater sample
  - 3,920 Most recent total TPH concentration (µg/L)
  - 233 Total lead concentration (µg/L)

NOTES

1. Preliminary conceptual cross-section; lithologic contacts estimated where not logged.
2. Cross section not to scale.
3. µg/L = micrograms per liter
4. bgs = below ground surface
5. bss = below sediment surface
6. ft = foot/feet
7. GSI = groundwater and surface water interface
8. mg/kg = milligrams per kilogram
9. ND = not detected
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13. MLW = mean low water
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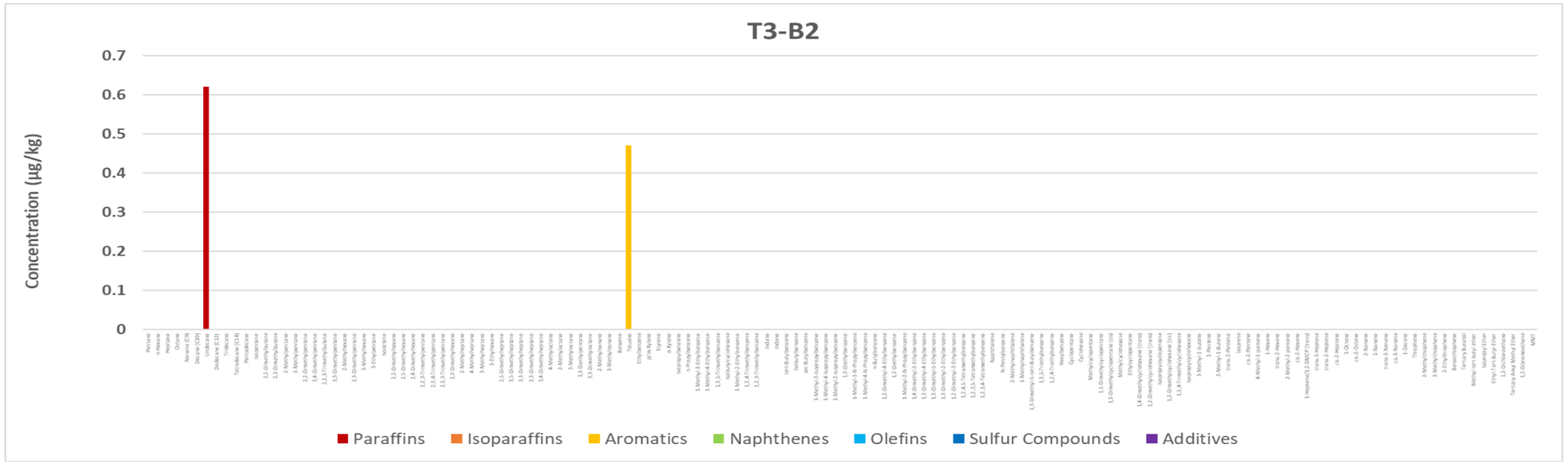
15. TPH = total petroleum hydrocarbons

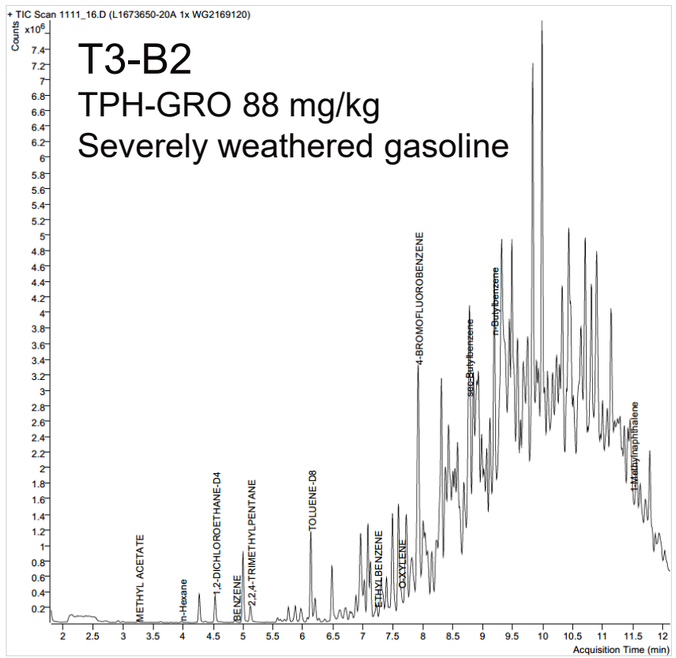
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

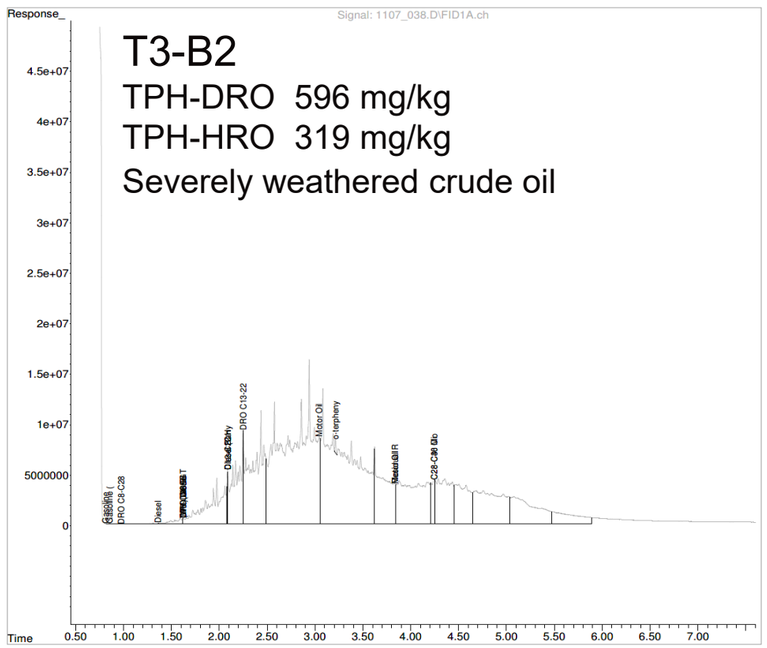
CROSS SECTION B-B'

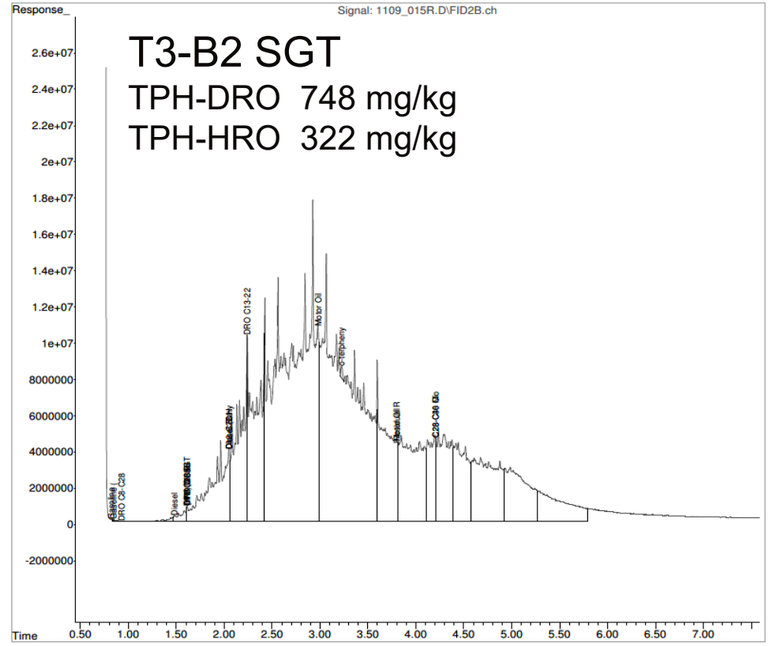
ARCADIS

FIGURE 10









ABBREVIATIONS:

µg/kg	MICROGRAM PER KILOGRAM
mg/kg	MILLIGRAM PER KILOGRAM
SGT	SILICA GEL CELANUP
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL-RANGE ORGANICS
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE-RANGE ORGANICS

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

PIANO BAR CHART AND TPH-GRO AND TPH-DRO CHROMATOGRAMS – T3-B2

ARCADIS

FIGURE
11

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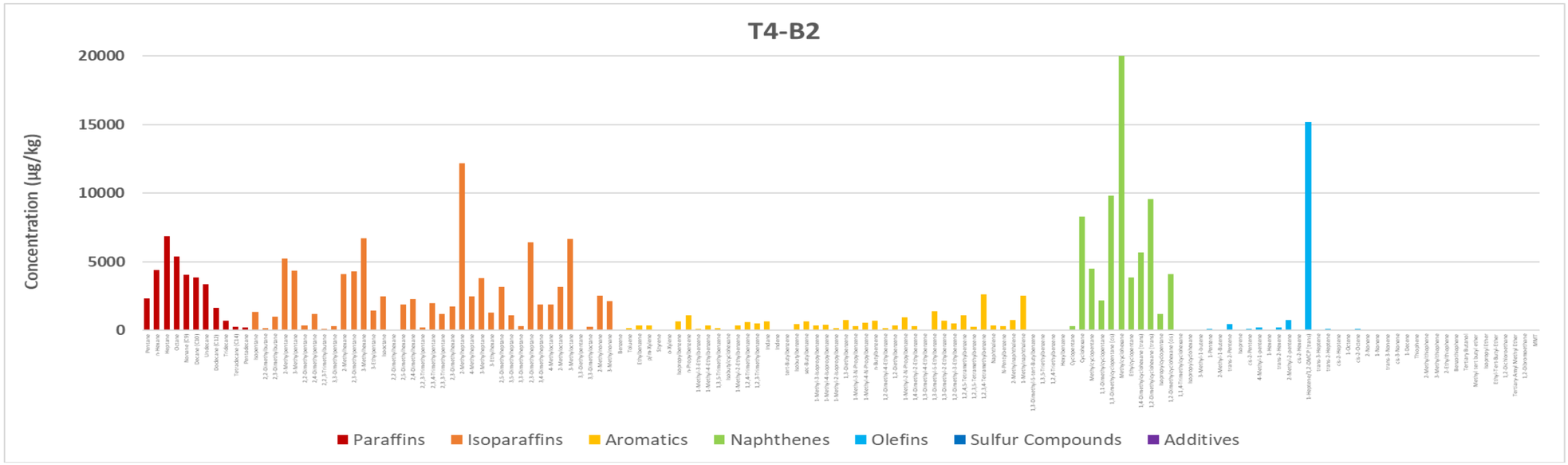

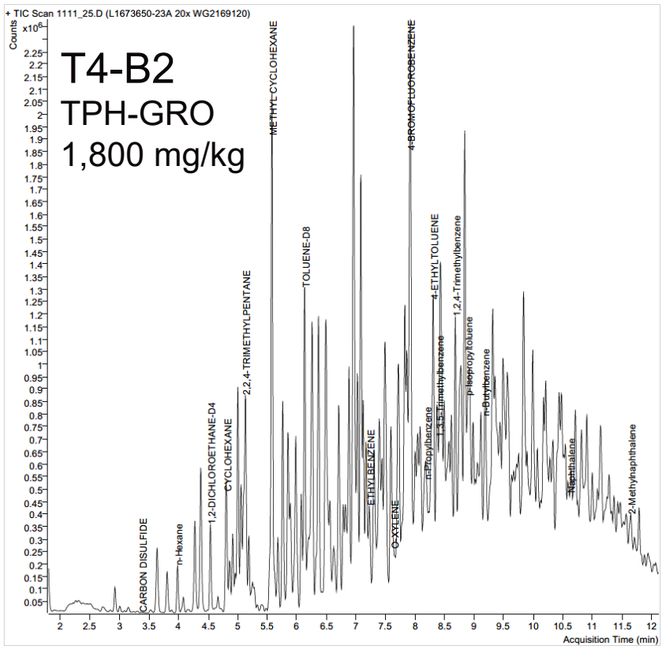

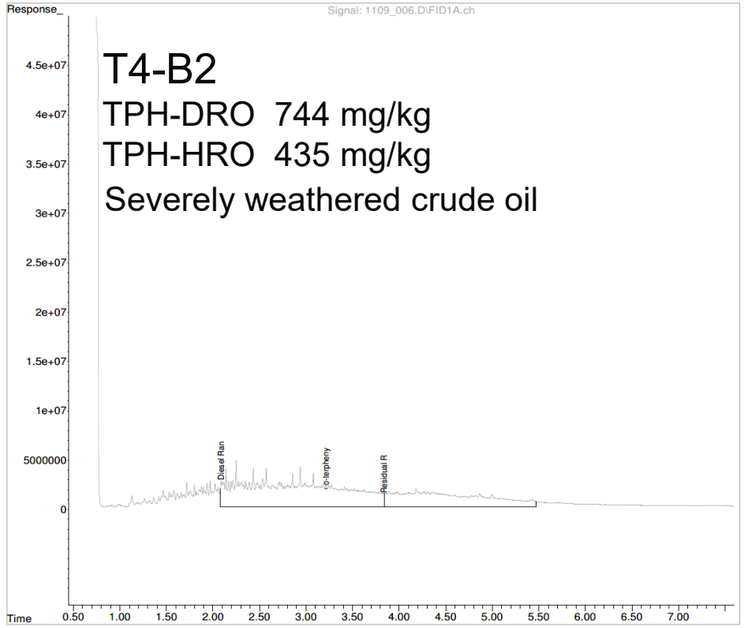

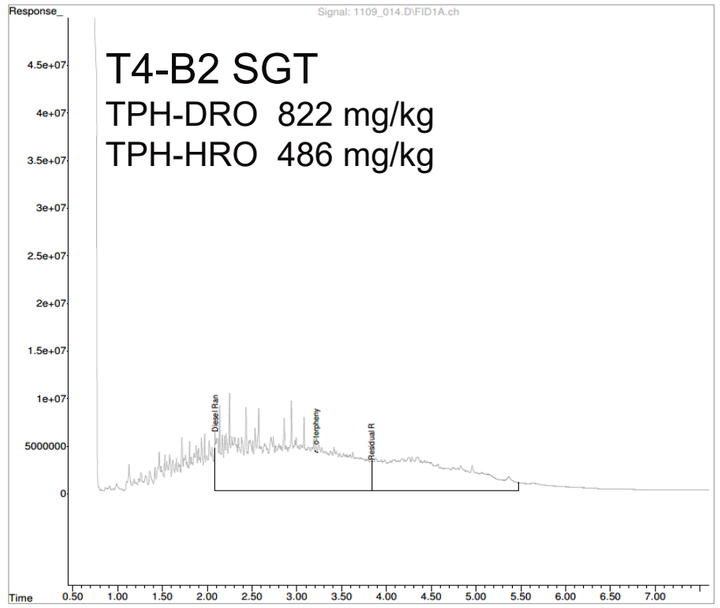

ABBREVIATIONS:

µg/kg	MICROGRAM PER KILOGRAM
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SGT	SILICA GEL CELANUP
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TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE-RANGE ORGANICS

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

PIANO BAR CHART AND TPH-GRO AND TPH-DRO CHROMATOGRAMS – T4-B2

ARCADIS

FIGURE
12

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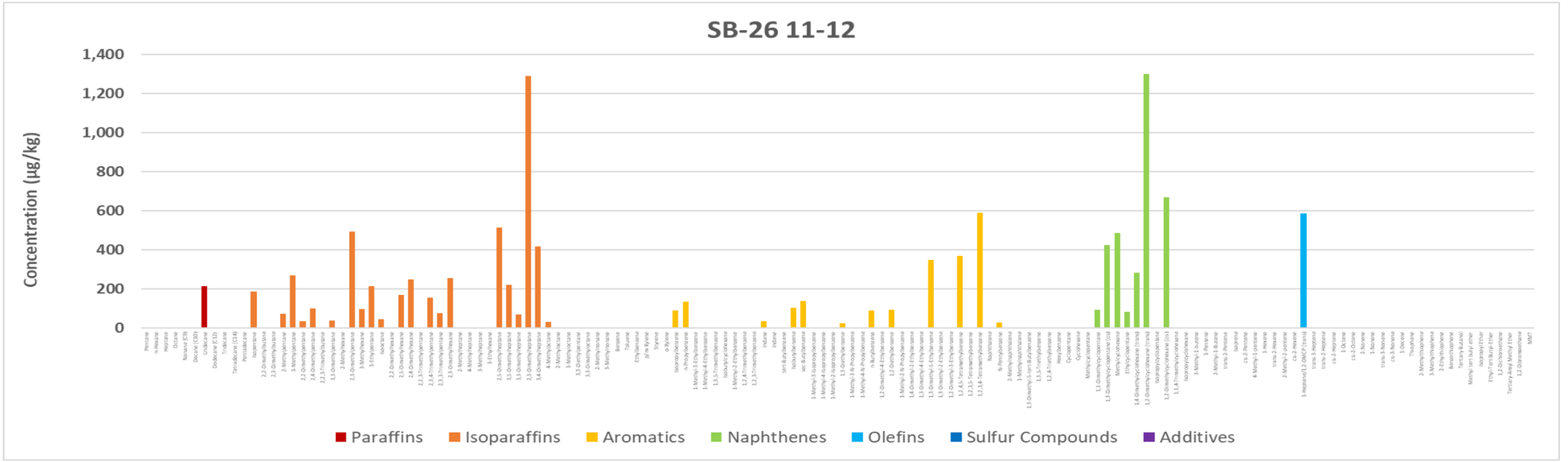
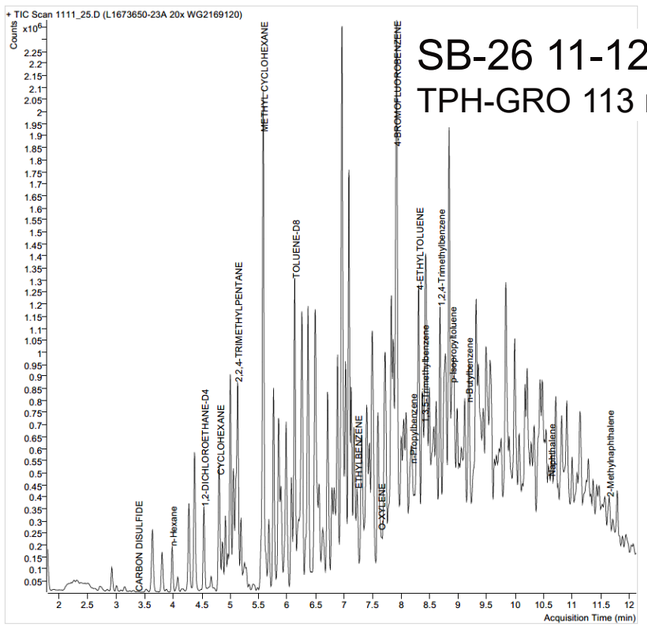
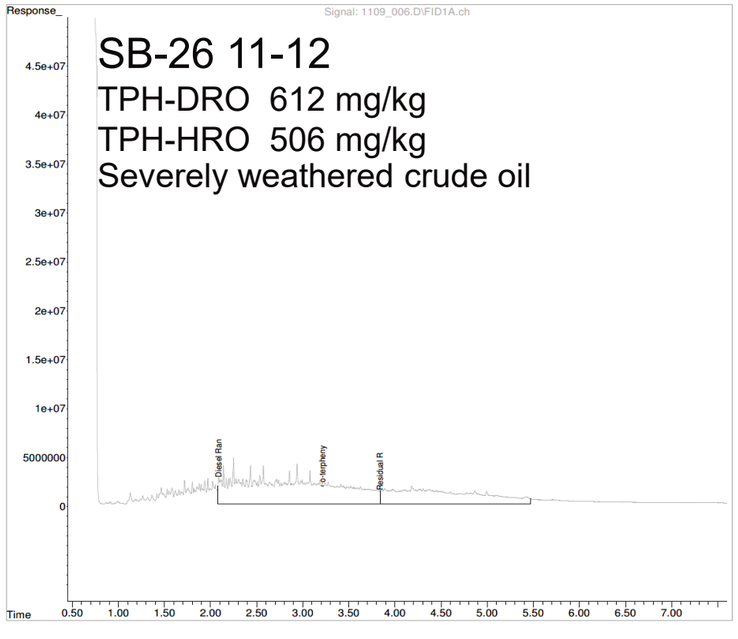
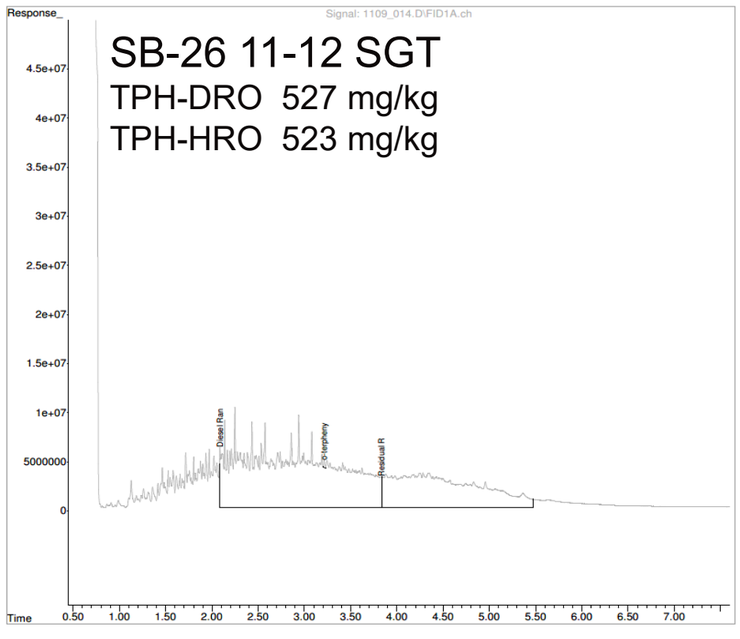




SB-26 11-12
TPH-GRO 113 mg/kg



SB-26 11-12
TPH-DRO 612 mg/kg
TPH-HRO 506 mg/kg
Severely weathered crude oil



SB-26 11-12 SGT
TPH-DRO 527 mg/kg
TPH-HRO 523 mg/kg

ABBREVIATIONS:

µg/kg	MICROGRAM PER KILOGRAM
mg/kg	MILLIGRAM PER KILOGRAM
SGT	SILICA GEL CELANUP
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL-RANGE ORGANICS
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CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT NO. 1001838
10 FIFTH STREET, ASTORIA, OREGON
UPLAND REMEDIAL INVESTIGATION DATA SUMMARY REPORT

PIANO BAR CHART AND TPH-GRO AND TPH-DRO CHROMATOGRAMS – SB-26

ARCADIS

FIGURE
13

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Appendix A

City of Astoria Permits

City of Astoria – Public Works Department
1095 Duane Street, Astoria, OR 97103
Phone: (503) 338-5173 **Fax:** (503) 338-6538
Email: engpermits@astoria.or.us
Web: www.astoria.or.us

NO APPLICATION FEE REQUIRED

PERMIT NUMBER: 23-133-PS

Temporary Street Use and Sound Amplification Permit

Applications must be submitted a minimum of one (1) week prior to the event.

TYPE OF ACTIVITY (CHECK ALL THAT APPLY)			
☐ Street/Lane Closure	☐ Sidewalk Closure	☒ Parking Space Closure	☐ Sound Amplification

PROJECT LOCATION	
Location/address:	City of Astoria Parcel 11500 and Parcel 11400
Nearest Cross Street:	Fifth Street

APPLICANT	
Contact Name: Eric Epple	Business Name: Arcadis U.S., Inc.
Address: 1420 5th Ave, Suite 2400	
City/State/ZIP: Seattle, WA 98101	
Phone: 206-578-5812	Email: Eric.Epple@arcadis.com

DESCRIPTION AND PURPOSE OF PROPOSED CLOSURE AND/OR SOUND REQUEST
(INCLUDE ADDITIONAL PAGES IF NEEDED)

Close parking spaces on the north side of 450 Marine Drive and 510 Marine Drive on City of Astoria Parcels 11400 and 11500 to allow isntallation of soil borings SB-17 through SB-22.

Signed and stamped Traffic Control Plans are attached for reference.

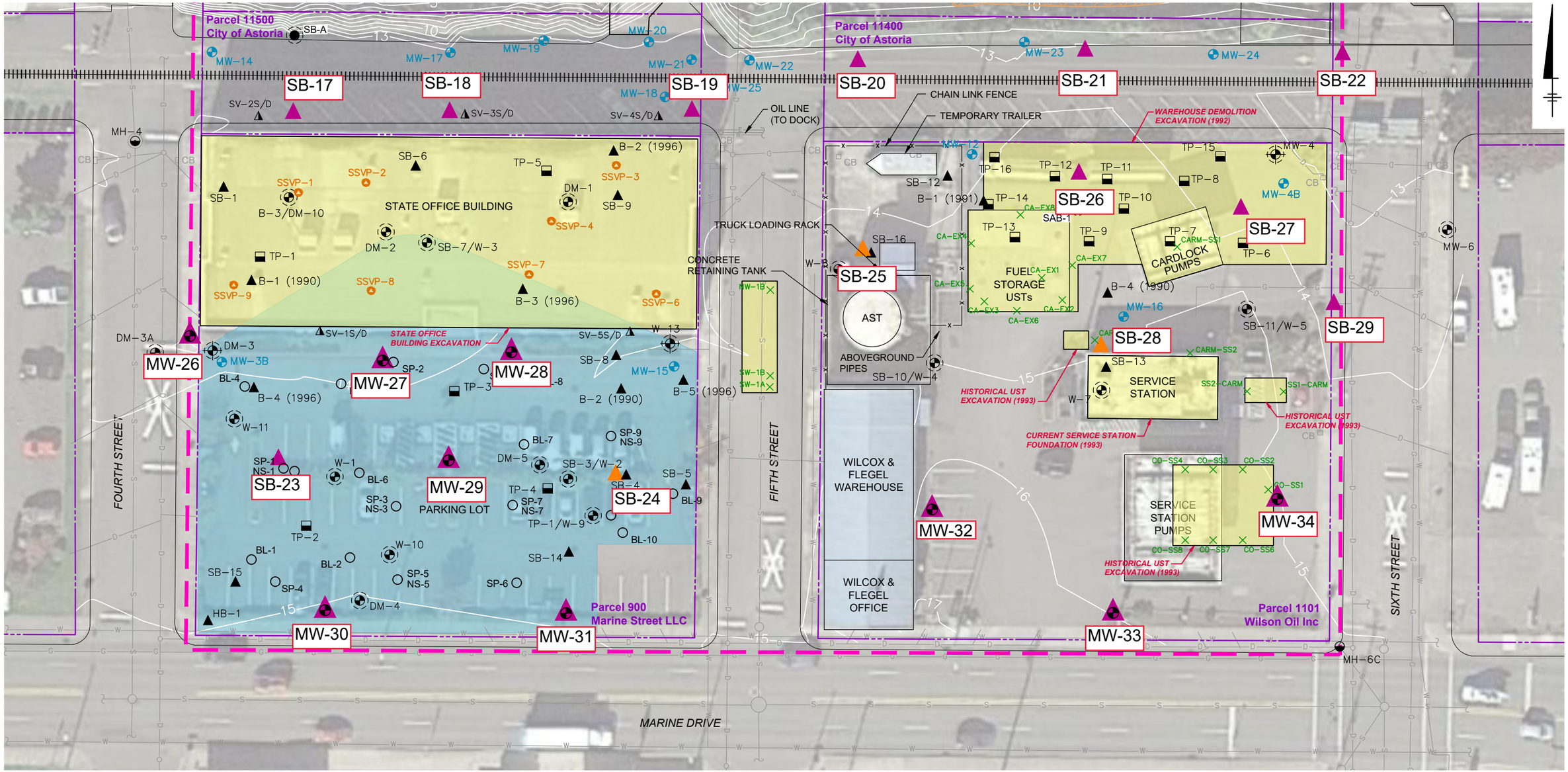
Applicant advised they are not closing the driving lane.

Advised contractor that the trolley will be running on 10/31/2023.

Proposed start date: 10/31/2023	Proposed start time: 9:00 AM
Estimated completion date: 11/10/2023	Estimated completion time: 5:00 PM

Applicant Signature: **Date:** 10/23/2023

Please continue to page two



LEGEND:

- AREA OF INTEREST
- PROPERTY LINE
- MONITORING WELL
- SURFACE WATER STILLING WELL
- TEMPORARY MONITORING WELL
- CONFIRMATION SAMPLE
- PHYTOREMEDIATION SAMPLES
- ABANDONED MONITORING WELL
- SOIL BORING
- TEST PIT LOCATION
- MANHOLE SEDIMENT SAMPLE LOCATION
- SOIL VAPOR PROBE LOCATION
- SUB-SLAB VAPOR PROBE LOCATION
- TROLLEY TRACKS
- ELEVATION CONTOUR (FEET NGVD29)
- STORM SEWER
- SANITARY SEWER
- WATER SERVICE
- GAS SERVICE
- ELECTRIC SERVICE
- HISTORICAL EXCAVATION LIMITS
- APPROXIMATE EXTENT OF SOIL TREATMENT CELL (1996)
- PROPOSED SOIL BORING LOCATION
- PROPOSED MONITORING WELL CONVERTED FROM SOIL BORING
- SOIL BORING TO BE SAMPLED FOR POLYCHLORINATED BIPHENYLS

NOTES:

1. BASEMAP AND WELL LOCATIONS BASED ON SURVEYS PERFORMED BETWEEN MAY 31, 2005 AND MARCH 26, 2008 BY CHASE, JONES & ASSOCIATES INC. OF PORTLAND, OREGON.
2. PROPERTY LINES ARE ADAPTED FROM THE CLATSOP COUNTY INTERACTIVE WEBMAP ACCESSED AUGUST 18, 2022. HTTPS://DELTA.CO.CLATSOP.OR.US/APPS/CLATSOPCOUNTY
3. PIER LOCATIONS ARE BASED ON AERIAL PHOTOGRAPHS AND ARE APPROXIMATE.
4. UTILITY LOCATIONS DIGITIZED FROM DRAWINGS PROVIDED BY THE CITY OF ASTORIA AND ARE APPROXIMATE.

ABBREVIATIONS:

- AST = ABOVE GROUND STORAGE TANK
- NGVD29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929
- UST = UNDERGROUND STORAGE TANK

0 40' 80'
GRAPHIC SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER CHEVRON BULK PLANT SITE NO. 100-1838
10 FIFTH STREET, ASTORIA, OREGON
REMEDIAL INVESTIGATION WORK PLAN
APPENDIX B SAMPLING AND ANALYSIS PLAN

UPLAND INVESTIGATION SCOPE

ARCADIS

FIGURE
B-1

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XREFS:
X_RIWP_Base
X_RIWP_Contours
X_S&AP_Title

IMAGES:
2018 Google Earth Imagery.jpg

www.invarion.com

Legend

- Cone
- Sign Stand
- Work Area

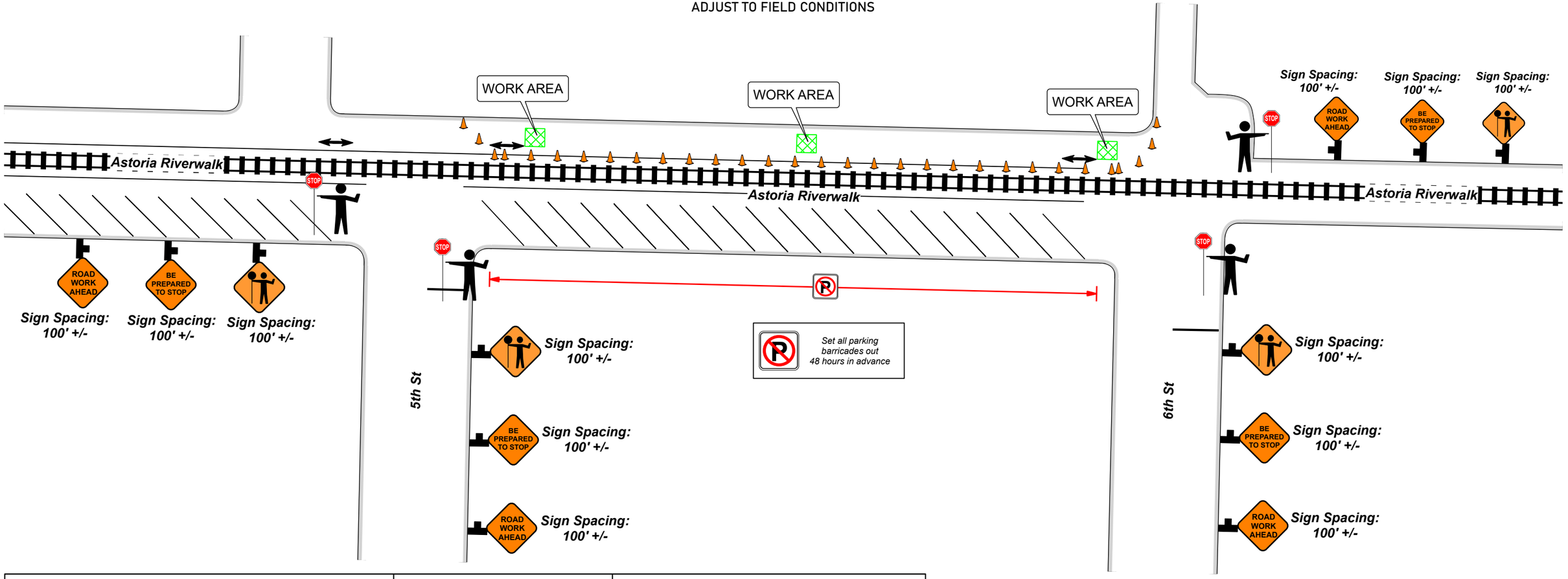
INVENTORY

x4 Road Work Ahead
x4 Be Prepared To Stop
x4 Flagger Ahead
x4 Flaggers
x15 Cones

N

DRAWING NOT TO SCALE

ADJUST TO FIELD CONDITIONS



Contractor: Arcadis **Contact:** Grace Boyd 303-877-5955	**Job # / WO:** 30064294.0721	**Date:** September 8, 2023
Work Location: 10 5th St, Astoria, OR 97103	**Work Hours:**	**Drawn by:** Braydon Saugling (619)-312-8520 WA TCS #079783 Exp. 7/31/2027
Notes: - Maintain minimum 10' travel lanes. - Signs & supports shall not be placed in areas designated for bikes/pedestrians. - All signs & devices shall conform to MUTCD standards.	**To book traffic control, call dispatch, ext. 3** **(503) 502-5339** INTEGRITY TRAFFIC	**Additional Notes:**

www.invarion.com

Legend

- Cone
- Sign Stand
- Work Area

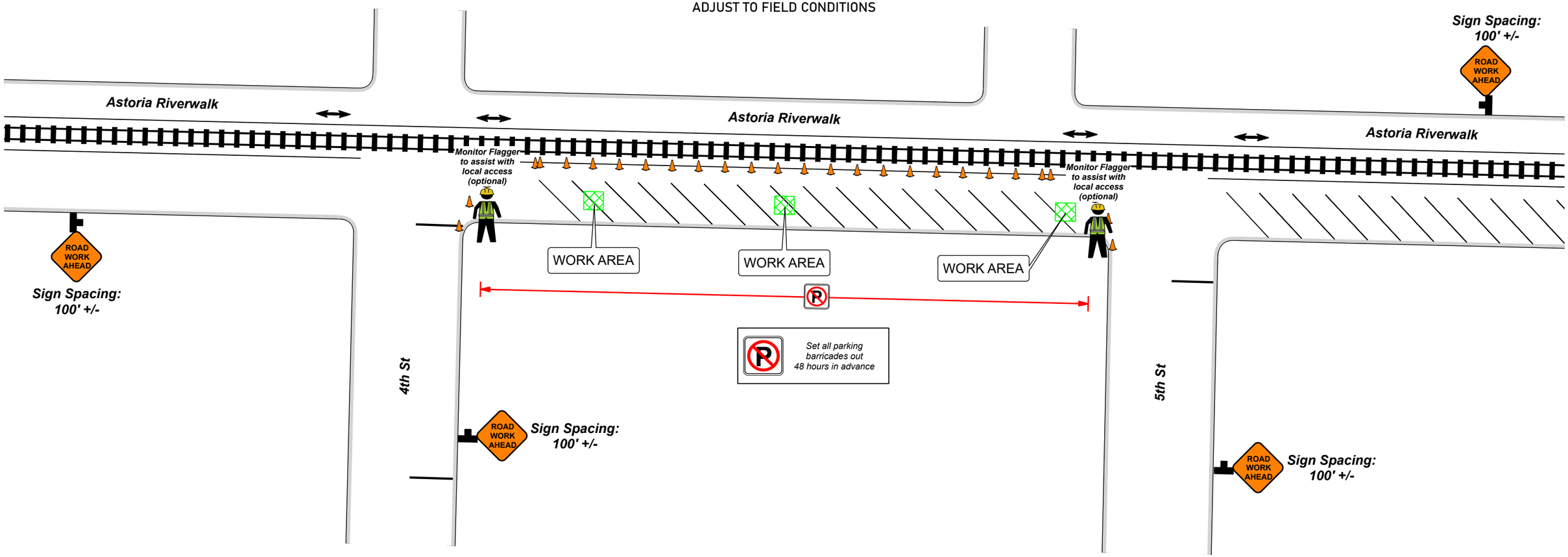
INVENTORY

x4 Road Work Ahead
x2 Flaggers
x15 Cones

N

DRAWING NOT TO SCALE

ADJUST TO FIELD CONDITIONS



Contractor: Arcadis **Contact:** Grace Boyd 303-877-5955	**Job # / WO:** 30064294.0721	**Date:** September 8, 2023
Work Location: 10 5th St, Astoria, OR 97103	**Work Hours:**	**Drawn by:** Braydon Saugling (619)-312-8520 WA TCS #079783 Exp. 7/31/2027
Notes: - Maintain minimum 10' travel lanes. - Signs & supports shall not be placed in areas designated for bikes/pedestrians. - All signs & devices shall conform to MUTCD standards.	**To book traffic control, call dispatch, ext. 3** **(503) 502-5339** INTEGRITY TRAFFIC	**Additional Notes:**

City of Astoria – Public Works Department
Temporary Street Use and Sound Amplification Permit

FOR USE BY CITY STAFF ONLY

☒ Approved with no additional conditions.
☐ Approved with the following additional conditions:
☐ Denied

Application Complete: 10/23/2023	Reviewed & Approved: ***APPROVED*** ***By Nicole E. Tait at 12:00 pm, Oct 27, 2023***
Proper Parties Notified: 10/23/2023	Completed by:

***All pages of permit must be available to produce at approved permitted site upon request.**

GENERAL PERMIT CONDITIONS:

- Adjacent property owners must be contacted by you or your representative as soon as possible to inform them of this closure and/or sound permit.
- Emergency access shall remain available to all buildings fronting the temporarily closed section of the street, sidewalk and/or parking space.
- A traffic control plan is required to be submitted for all proposed street and lane closures.
- Ensure that sufficient traffic control cones, barricades, and signs are in place to secure the closed portion of the street, sidewalk and/or parking space and to safely control the traffic flow. *It is possible for Non-profit agencies within the city limits of Astoria (this does not include for-profit businesses, contractors, and agencies) to borrow traffic control devices from the City Operations Division, if available. Please contact (503) 325-3524 in advance for availability and to make arrangements.*
- The City of Astoria reserves the right to revoke this permit at any time if permit conditions are not met, conduct or operation constitutes a nuisance, a clear and present danger to the public health, safety or general welfare, or when the holder of this permit refuses to allow an inspection of the premises. Upon revocation, applicant may be subject to citation(s).
- Please review Astoria Code Sections 5.025 (7) and (11) below to familiarize yourself with the rules pertaining to sound permits:

  Section 5.025(7): "Construction, excavation, demolition, alteration or repair of a building between the hours of 6 p.m. and 7 a.m., except with a permit granted by the city manager. If the city manager determines that public health, safety and welfare will not be impaired by such activity, and that loss of inconvenience will result to a person unless the work is permitted, he may grant permission for the work to be done within those hours. An owner may do work on property occupied by him between the hours of 6 p.m. and 10 p.m. without a permit".

  Section 5.025(11): "Operating an automatic or electric piano, phonograph, radio, television, loudspeaker or any instrument for sound producing or sound amplifying so loudly that it disturbs persons in the vicinity or becomes a nuisance. Permits may be granted by the city manager to persons or organizations for the broadcast or amplification of programs of music, news, speeches or general entertainment as a part of a national, state of city event, public festival or outstanding events of a noncommercial nature. The broadcast or amplification shall not be audible for a distance of more than 300 feet from the instrument, speaker or amplifier; and a permit shall not be granted if traffic obstruction, vehicular or pedestrian, will result. *[Section 5.025(11) amended by Ordinance No. 04-05, passed August 2, 2004.]*"

If closing parking spaces in the Downtown Parking District,
please contact the Astoria Finance Department, 1095 Duane Street, Astoria OR,
(503) 325-5821, to obtain a Parking Permit:

The Parking Permit is to be be placed on the dashboard of a vehicle that is parked in a Downtown Parking District parking space during the time of the activity. If the parking space will not have a vehicle parked and is merely closed for safety reasons (i.e., tree trimming), dumpster or equipment placement, then the purchaser will need to have that pass available to produce upon request.

- These permits cost $5.00 **per space, per day**.
  Weekly and monthly sliding scale rates are also available.

Applications must be submitted a minimum of one (1) week prior to the event.

Return completed form to: ***Astoria Public Works Administration Office***
1095 Duane Street
Astoria, OR 97103
Or email to: engpermits@astoria.or.us

Appendix B

Boring Logs

ARCADIS

Soil Boring and Construction Log

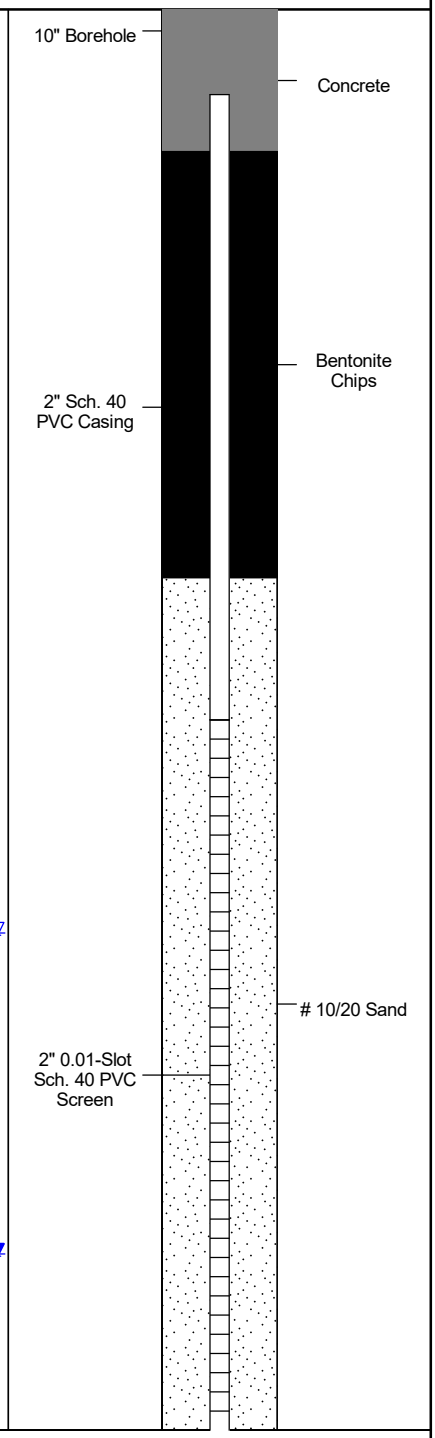
Boring No.: MW-26

Sheet: 1 of 2

Client Name: Chevron Environmental Management Company
Project Number: 30064294
Project Name: COP5 West 1001838 OR Astoria
Date Started: 11-04-2023
Date Completed: 11-04-2023
Total Depth: 20.3 ft bgs
Logger: Gantt Jeffers
Reviewer: Megan Schettler RG-OR, G2608

Depth (feet)	Sample ID	Rec. (ft)	PID (ppm)	Blow Counts	Graphic	Description	Drilling Fluid and Notes
						(0-0.3 ft) Asphalt.	(0-5 ft) Air knife for utility clearance
						(0.3-1 ft) No Recovery.	
1						(1-1.5 ft) Well Graded Gravel (GW), small to very large pebbles, angular; little granules, angular; little medium to very coarse sand, angular to subround; trace small cobbles, angular; trace silt; poorly sorted; moist to wet; 10YR 4/4 - dark yellowish brown; no odor; fill material.	
2			0			(1.5 ft) NOTE: Tarp material.	
	MW-26-2-3-11042023	5				(1.501-3 ft) Silt with Gravel (ML), medium plasticity, no dilatancy; little very fine to very coarse sand, subangular to subround; little small to very large pebbles, subangular to subround; trace small cobbles, subangular to subround; trace granules, subangular to subround; poorly sorted; moist to wet; soft; 2.5Y 5/2 - grayish brown; organic odor; fill material.	
3						(3-4 ft) No Recovery.	
4			93.5			(4-5.8 ft) Silty Sand (SM), very fine to medium, subangular to subround; some silt; trace small to very large pebbles, subangular to subround; trace granules, subangular to subround; poorly sorted; moist to wet; 5Y 5/1 - gray; strong odor; fill material. NOTE: Trace coarse to very coarse sand.	
	MW-26-4-5-11042023						
5		1.5		4-6-8			
6			119.5			(5.8-6.5 ft) Poorly Graded Sand (SP), very fine to medium, subangular to subround; well sorted; moist; 10Y 3/1 - very dark greenish gray; strong odor; fill material. NOTE: NS.	
7	MW-26-6.5-8-11042023	1.5	55.8	3-5-5		(6.5-7.1 ft) Silty Sand with Gravel (SM), very fine to very coarse, subangular to subround; some silt; little small to very large pebbles, subangular to subround; trace granules, subangular to subround; poorly sorted; moist to wet; 2.5Y 4/3 - olive brown; strong odor; fill material.	
						(7.1-8 ft) Poorly Graded Sand (SP), very fine to medium, subangular to subround; well sorted; moist; 10Y 3/1 - very dark greenish gray; strong odor; fill material.	
8			6.8			(8-9 ft) Silty Sand with Gravel (SM), very fine to very coarse, subangular to subround; some silt; little small to very large pebbles, subangular to subround; trace granules, subangular to subround; poorly sorted; moist to wet; 2.5Y 4/3 - olive brown; moderate odor; fill material.	
9		1.5		2-2-3			
						(9-10 ft) Poorly Graded Sand (SP), very fine to medium, subangular to subround; well sorted; wet; 10Y 3/1 - very dark greenish gray; mild odor; fill material. NOTE: Trace organics and wood fragments.	
10		1.5		3-4-3			

Construction Details



Drilling Co.: Cascade
Driller: Wesley Kennedy
Drilling Method: Hollow Stem Auger
Drill Rig: Hollow Stem Auger Rig
Remarks: Additional Field Personnel: Elijah Joves. bgs = below ground surface; ' / ft = feet; " / in. = inch; ppm = parts per million; NA = not applicable / available.

Sampling Method: Hand Auger/Split Spoon
Sampling Dimensions: Continuous
First Encountered Water (ft bgs): 6.5
Static Water Level (ft bgs): 8.76
Top of Casing Elev: 17.20
Surface Elev: 17.56
North Coor: 937763.20
East Coor: 7356749.06

SOIL BORING AND CONSTRUCTION LOG C:\USERS\PJEFFERS\DOWNLOADS\GINT PROJECT.GPJ GINT DATA TEMPLATE.GDT 12/6/23