FOCUSED PHASE II ENVIRONMENTAL SITE ASSESSMENT

INDUSTRIAL PROPERTY

5605-5621 NE 105th Avenue
Portland, Oregon

Prepared for:

Blackstone Consulting
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This

Focused Phase II Environmental Site Assessment

Report for:

Industrial Property

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Portland, Oregon

Has been prepared for the sole benefit and use of our Client:

Blackstone Consulting
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and its assignees

Issued May 19, 2023 *by:*

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List of Acronyms and Abbreviations

AST	above-ground storage tank
ACM	asbestos-containing materials
bgs	below ground surface
CFSLs	clean fill screening levels
Client	Blackstone Consulting
CMMP	Contaminated Media Management Plan
COCs	constituents of concern
COIs	constituents of interest
DPT	direct-push technology
DRO	diesel-range organics
ENW	EVREN Northwest, Inc.
EPA	US Environmental Protection Agency
ESA	Environmental Site Assessment
F&BI	Friedman and Bruya, Inc.
FSDS	Field Sampling Data Sheet
GPR	ground penetrating radar
GRO	gasoline-range organics
HCID	hydrocarbon identification
LUST	Leaking Underground Storage Tank
µg/L	micrograms per Liter
mg/Kg	milligrams per Kilogram
MRL	method reporting limit
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFA	No Further Action
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
OWRD	Oregon Water Resources Department
PAHs	polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PID	photoionization detector
Qalc	Quaternary flood plain deposits of the Willamette River and major tributaries
RBCs	risk-based concentrations
RBDM	ODEQ's *Risk-Based Decision Making for the Remediation of Contaminated Sites* guidance document
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
ROW	right-of-way
RRO	residual (oil)-range organics
SLRBCs	screening-level risk-based concentrations
SOW	scope of work
SVOC	semi-volatile organic constituent
SWI	soil/water interface
TPH	Total Petroleum Hydrocarbons
USCS	Unified Soil Classification System
USGS	U.S. Geological Survey
UST	underground storage tank
VOCs	volatile organic constituents

1.0 Introduction

At the request of Blackstone Consulting, LLC Blackstone - Client), EVREN Northwest, Inc. (ENW) prepared this report documenting a Focused Phase II Environmental Site Assessment (ESA) at the subject site (5605-5621 NE 105th Avenue, Portland, Oregon; see Figures 1 and 2). This focused Phase II ESA was conducted to further evaluate environmental concerns identified in a Phase I ESA prepared for the subject property by Blackstone.

Site work was conducted in March and April 2023 and was photographically documented (Appendix A). This report summarizes the background and purpose of the investigation, field methods and observations, and the findings of laboratory analyses.

2.0 Salient Background

2.1 Historical Land Use

According to historical information provided by Blackstone,[1] various business entities have occupied the subject property since the 1960s, including multiple automobile storage and/or salvage operations. The site is currently occupied by an auto salvage business and includes an office, warehouses, sheds, limited asphalt and concrete paved parking and entry drive, gravel and dirt open areas, and a retention/bio-swale area.

Surrounding properties include a business park to the north, several commercial/light industrial properties to the east, and industrial buildings to the south and west.

2.2 Phase I ESA Findings

Blackstone prepared a Draft Phase I ESA (Draft for Discussion Purposes Only) of the 4.2-acre subject property in January 2023. The stated purpose of Blackstone's Phase I ESA was to "investigate and identify *recognized environmental conditions* (RECs) in accordance with American Society for Testing and Materials (ASTM) Standard E1527-21. ENW understands the Phase I ESA was performed in anticipation of a potential property transaction.

A summary of the findings of the Phase I ESA are summarized below. Please reference Blackstone's report for a complete description of their findings.

- **Open Regulatory Case:** The subject property (205 Auto Salvage) is identified on several regulatory databases associated with an unresolved Environmental Cleanup Site Information (ECSI) case. The ECSI database information indicated that storm water at the site has been impacted by PCB-containing sediments and are suspected of being discharged from the site to nearby Johnson Lake. Among the concerns are multiple violations and non-compliance notices related to stormwater

[1] Blackstone Consulting, LLC 2022. *Phase I Environmental Site Assessment Report, 5.3-Acre Industrial Property, 5605-5621 Northeast 105th Avenue, Portland, Multnomah County, Oregon*: Prepared for Crest Partners, dated January 25, 2023.

runoff from 2017 through 2021. Blackstone reported that a subsurface investigation was conducted in 2020 at the site, which identified various metals above background and screening levels.

- **Long-Term Auto Salvage Use of Subject Property:** The subject property has been used as an auto storage and/or salvage yard since at least 1960 and 20 of those years of operation occurred prior to promulgation of current environmental regulations. Auto salvage operations have the potential to impact subsurface soil and ground water with petroleum, metals and other contaminants resulting from small-scale spills over time, and from larger releases. Blackstone reported general surface staining within the interior of the maintenance and warehouse buildings and exterior surface areas. During a limited subsurface investigation performed in 2020 that included the completion of a ground penetrating radar (GPR) and limited soil sampling on portions of the subject property, no evidence of USTs or other environmental concerns was reported; however, concentrations of arsenic, cadmium, chromium, and lead exceeding background levels and select screening levels were detected at the site. Based on the limited coverage of the investigation, Blackstone has concluded the results were not adequate to determine if impacts on the subject property are considered a threat to human health or the environment.
- **On-Site Underground Injection Control (UIC) Well:** According to regulatory database information reviewed, there are three UIC wells registered for industrial stormwater drainage on the subject property (UIC #11673). The UIC wells are reported beneath a concrete lid in the northeast portion of the subject property, immediately south of the easternmost warehouse. Based on the unknown configuration and condition of the UIC wells, and the potential for contaminants associated with surface runoff from the roadway and adjoining properties to have been released to the subsurface on the subject property, the on-site UIC wells are considered a REC.
- **Current/Prior Use of Adjoining Properties:** Recycling operations (including metal recycling) have been identified at the west-southwest adjoining property and the south adjoining property and regulatory listings suggest hazardous waste generation and management occurred before the establishment of modern regulations. ODEQ involvement has recommended further investigation of one or more of these properties. Because these properties are hydraulically upgradient of the subject property, the use of the south and west-southwest adjoining properties as recycling facilities are considered a REC.

In their Phase I ESA, Blackstone also mentioned the following as Business Environmental Risk Issues.

- Various violations related to the site's NPDES 1200-Z Industrial Stormwater General Permit.
- Hazardous Substances storage practices.
- Asbestos-Containing Materials (ACM).

In March 2023, Blackstone engaged ENW to conduct a Focused Phase II to further investigate possible environmental concerns associated with the historical uses of the subject property. ENW presented a scope of work and cost estimate to Blackstone to perform the Phase II ESA in a proposal dated March 3, 2023.

The proposed scope of work addresses all but the last three of the above-listed environmental concerns at the site. ENW understands an investigation and/or management of storm water compliance issues, hazardous substances, and ACMs, if elected to be performed, will be conducted under a separate scope of work.

3.0 Scope of Work

ENW completed the following Scope of Work (SOW) for this project:

- Called One Call Utility Notification Service to identify and locate all public utilities near each of the proposed sampling locations.
- Performed a geophysical survey at the site to screen for the presence of subsurface features of potential environmental concern (i.e., USTs, UICs, sumps, drains, etc.) and clear proposed boring locations.
- Advanced 8 temporary soil borings and collected soil and reconnaissance ground water samples from select soil borings for laboratory analysis.
- Submitted soil and reconnaissance ground water samples to an independent laboratory for appropriate analysis.
- Evaluated analytical results with respect to Oregon Department of Environmental Quality (ODEQ) cleanup standards and risk-based guidance documents.
- Prepared this report documenting the work conducted with findings.

4.0 Site Setting

Description and Location. The subject property is identified as Multnomah County property IDs: R235901 and R235902. The subject address is 5605-5621 NE 105th Avenue in northeast Portland, Oregon (Figures 1 and 2).

At the time of this focused Phase II assessment, the subject property was observed to contain a single-story office, a warehouse with shop, two additional warehouse buildings, a garage and two sheds. The buildings were surrounded open storage yard areas covered with bare exposed earthen materials and asphaltic concrete, and a retention pond/bioswale. A chain link and corrugated metal fence surrounded the site. Land use in the vicinity was a mix of industrial properties.

Geographic Setting and Topography. The subject site is generally level with elevations of around 20 feet above mean sea level (see Figure 1). The subject property and surrounding area lie south of the Columbia River and the Columbia Slough in Northeast Portland, Oregon. Prior to 1917, the Columbia Slough mainstem channel was seasonally connected to the Columbia River, and part of the active floodplain of the Columbia River, and is characterized by seasonal flooding episodes creating side channels, wetlands, sloughs, and shallow lakes. Between 1917 and 1919, several levees were constructed along the Columbia River to control seasonal flooding and promote agricultural development of the area.

Geologic Setting. The subject property is located within the Portland Basin, a down warped northwest trending basin with a bowl-like structure filled with up to 1,700 feet of sedimentary materials that are thickest near the Columbia and Willamette rivers. Columbia River Basalt forms the basement rock of the basin. Sedimentary deposits within the basin from oldest to youngest include: Sandy River Mudstone, Troutdale Formation, and Younger alluvial sediments. Near the Columbia River, flood deposits are coarse-grained, consisting of basaltic sand and gravel with cobbles and boulders and can range up to 200 feet thick.

According to the U.S. Geological Survey (USGS) *Water-Supply Paper 1793, titled Ground Water in the East Portland Area, Oregon*, the subject property and surrounding properties are underlain by Recent Younger Alluvium (Pal) composed of gravel, sand, silt, and clay, slightly stratified.

Hydrogeologic Setting. Current nearby surface water bodies include Johnson Lake and the Columbia Slough, located within approximately one-quarter (0.25) mile of the property. The Columbia River is located approximately 1 mile north of the subject property.

The regional ground water aquifer supplying most of the water wells in the area occur within the water-bearing gravels of the Troutdale Gravel Aquifer (TGA) beginning at depths of over 200 feet bgs. Shallow ground water also occurs as seasonal perched zones fed primarily by precipitation occupying the upper fine-grained sediments less than 15 feet bgs beneath the subject property. The predominant ground water flow direction is anticipated to follow regional surface topography and generally flow north to northwest.

5.0 Methods

5.1 Objectives

The assessment objectives were to:

- Assess whether any previously undiscovered features of concern remain at the site with focus on USTs, drywells or other storm water related infiltration features.
- Assess soil and ground water conditions in former operational areas of potential concern relative to the presence of petroleum products and hazardous substances.

Additional objectives for the work included:

- To perform the work efficiently and cost-effectively, minimizing interference with any site operations.
- To perform the work in a safe manner for technical personnel and site residents.
- To document information and data generated in a professional manner that is valid for the intended use.

5.2 Preparation Activities

ENW performed or coordinated the following activities before commencing all field activities.

Plan Preparation. In-house Sampling and Analysis were prepared for the project.

One Call Notification. Prior to any subsurface site work, a call was placed with One Call Utility Notification Service to identify and locate all public utilities near each of the proposed sampling locations.

5.3 Geophysical Survey

A geophysical survey was conducted at the subject property on March 17, 2023. Geophysical services were subcontracted to GeoPotential of Clackamas, Oregon to: 1) confirm the location of private utilities not covered by One Call; and, 2) scan the site for buried tanks or other environmental features of concern. Results were considered in placement of final boring locations, as necessary.

The survey utilized the following equipment:

Aqua-Tronics Electronic Tracer - electromagnetic sensing equipment designed to identify subsurface anomalies. In the inductive mode, the equipment is used to sense metallic objects in the subsurface. A conductive mode allows for tracing electrical conduit and metallic pipelines.

Magnetometer - used as a complement to the Aqua-Tronics instrument, the magnetometer senses horizontal variations in the local magnetic field caused by buried ferrous metal objects such as USTs, drums, pipes, and debris-filled trenches. (Magnetic surveys can only detect ferrous metal objects. Interference caused by observed surface metal objects limits the accuracy of the survey. The anomalies produced by fences, power lines, cars, and buildings can easily mask an anomaly caused by an underground target.)

Ground Penetrating Radar (GPR) - GPR uses short impulses of high-frequency radio waves directed into the ground to acquire information about the subsurface. GPR can be used to accurately locate both metallic and non-metallic objects (e.g., USTs, utilities, and drums) from a few inches below the surface to depths of up to 30 feet. GPR may also be effective at delineating trenches and excavations.

5.4 Surface Soil and Settling Pond Sediment Investigation

ENW staff collected two (2) incremental soil samples on March 30, 2023, using ISM developed by the ITRC.[2] Under this method, the area of interest is referred to as a decision unit (DU) and the compositing and subsequent laboratory processing provides a reliable estimate of the average contaminant concentration across the DU that can be used to make risk-based decisions. For the purpose of this investigation, ENW sampled two decision units defined as the present footprint of a storm water retention pond near the western site boundary (DU-2 2023), and exposed areas across the entire site (DU-3 2023) respectively, as illustrated on Figure 3.

The samples from each DU consisted of approximately 50 equal-volume incremental subsamples collected at a depth of approximately 0.5-feet below ground surface (bgs) at systematic random positions across each DU using a stainless-steel hand auger. Each incremental soil or sediment sub-sample consisted of an approximate 40-gram soil mass. Gravel (>1/8-inch diameter) and debris (roots, twigs, bark) were removed prior to collection.

[2] The ISM protocol is explained in detail in a February 2012 guidance document issued by the Interstate Technology Regulatory Council.

The approximately 50 sample increments from each DU were collected and placed into a laboratory-provided one-gallon glass sample jars (one for each DU), using clean nitrile gloves. Sample jars were sealed with a Teflon-lined lids, uniquely labelled, and preserved on ice pending transport to the laboratory under chain-of-custody procedures.

5.5 Conventional Composite Sampling

ENW collected composite samples from an apparent improvised storm water infiltration feature (sample "IP-COMP-230330") and from sediments inside a drywell located on the property (sample "UIC-COMP-230330"). Composite samples from these locations consisted of multiple discrete soil samples collected from several depth-discrete sample intervals, including the upper, middle, and lower portions of the soil or sediment column using a decontaminated stainless-steel hand auger. Discrete samples were combined in a new Ziploc® bag and thoroughly mixed together to form a homogenate. A representative portion of the mixed soil was then transferred into laboratory supplied glass sample container and preserved on ice in a cooler pending transport to the laboratory.

5.6 Soil Boring and Sampling

Using information in Blackstone's Phase I ESA and results from the geophysical survey, ENW advanced 8 hand auger and direct-push borings (EB01 through EB08) proximate to features of possible concern for the purposes of collecting soil and reconnaissance ground water samples for laboratory analysis. ENW advanced soil borings in exterior areas of the site using a percussive Direct Push Technology (DPT) drill rig operated by Cascade Drilling of Clackamas, Oregon. Two borings inside the onsite warehouse/shop building were advanced using a decontaminated stainless-steel hand auger. Soil borings were advanced between 2.5 and 15 feet bgs under the direction of an ENW geologist. The locations of borings EB01 through EB08 are illustrated on Figure 3.

Soil materials recovered from the hand auger bucket or DPT sleeves were inspected continuously for the presence of contamination by visual and olfactory inspection. In addition, semi-quantitative headspace screening was performed by placing selected soil samples in a plastic sealable bag, breaking the soil core to expose surface area inside the bag, and inserting a photoionization detector (PID) tip into the top of the bag. The cores were logged (Appendix B) with special attention to description of lithology, color, moisture, physical properties and odor.

Soil borings intended for collection of reconnaissance ground water samples were completed to approximately five (5) feet below the first observed ground water table (i.e., approximately 10 to 15 feet bgs). During each sampling interval, select portions of the soil core were retained for possible laboratory from zones where field screening identified evidence of possible impacts. If soil impacts were not indicated, at least one soil sample was collected from each boring from appropriate depths unique to the feature being explored.

Soil samples were placed directly into labeled laboratory-prepared glass sample jars using clean Nitrile-gloved hands and sealed with a Teflon-lined lid. Samples for analysis of volatile constituents were additionally collected using sampling procedures prescribed by the Environmental Protection Agency (EPA) Method 5035. All samples were preserved on ice in a cooler pending transport to the laboratory following chain-of-custody protocols.

5.6.1 Sampling for Asbestos Containing Materials

During investigation of a suspected infiltration feature, some buried debris was found to have the appearance of potential asbestos containing material (ACM). A sample of the suspected ACM was collected and submitted to an Asbestos Hazard Emergency Response Act (AHERA) accredited laboratory for analysis. The asbestos sampling was conducted at the approval of the client for limited site characterization and potential disposal purposes. The asbestos sampling was not intended to replace a full scale AHERA asbestos inspection and/or abatement action.

5.6.2 Reconnaissance Ground Water Sampling

Upon reaching total depth, the drill tooling was removed from select borings, and a temporary well point was installed in preparation for reconnaissance ground water sampling. Approximately one (1) to three (3) liters of ground water was pumped from each boring using a low-flow peristaltic pump and dedicated polyethylene tubing to "purge" the standing water from the borehole and to draw representative ground water into the temporary well point. Following purging, a reconnaissance ground water sample was collected from clean, dedicated polyethylene tubing connected to a peristaltic pump set at a low rate to minimize off gassing of volatile contaminants. The sample was transferred into laboratory-supplied containers with appropriate preservative, uniquely labelled, documented on a chain-of-custody record, and placed in a cooler on ice pending transport to the laboratory. Reconnaissance ground water field sampling data sheets (FSDS) are included in Appendix C.

Each boring was designated with an "EB" prefix and a number (e.g., EB01, EB02, etc.). Individual soil samples were designated with the sample's depth appended to the boring number, e.g., EB05-4 would indicate a sample collected at 4 feet bgs in boring EB05. Additional qualifiers such as a sample collected at the soil/water interface (SWI) were appended to the boring number as appropriate (e.g., EB05-SWI-9) indicates a soil water interface sample collected from 9 feet bgs in boring EB05). Reconnaissance ground water samples were labeled with the "GW" qualifier as in sample EB05-GW-15, signifying the bottom of the temporary well screen located at 15 feet bgs.

All non-disposable sampling equipment was decontaminated to minimize the potential for cross-contamination. Following sampling, all borings were properly abandoned in accordance with Oregon regulations and the pavement/asphalt surface restored, as applicable. Start cards and well reports will be submitted to the OWRD as required.

5.7 Waste Management and Disposal

Investigation-derived waste (soil and purge water) was contained inside labelled Department of Transportation (DOT)-certified 55-gallon drums and staged on-site pending appropriate disposal.

5.8 Laboratory Sub-sampling, Compositing, and Analytical Methods

Soil and sediment samples for this investigation were delivered to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington for analysis under formal chain-of-custody protocol. Prior to analysis, F&BI processed the ISM samples in accordance with ITRC protocols (air dried, sieved, subsampled, and composited). ENW submitted one sample of suspected ACM to EMSL Analytical, Inc. of Seattle, Washington for asbestos analysis.

Samples were analyzed for select constituents using the analytical methods presented in Table 5-1. Copies of the F&BI and EMSL laboratory analytical reports and chain-of-custody documentation are provided in Appendix B.

Table 5-1. Analytical Plan

Analytical Method	Constituents	Soil	Reconnaissance Ground Water
NWTPH-HCID	Total petroleum hydrocarbon identification (HCID)	All samples	--
NWTPH-Gx	Total Petroleum Hydrocarbons (TPH)–Gasoline-range quantification (GRO)	--	All samples
NWTPH-Dx	TPH as Diesel- and Residual-range organics (DRO and RRO, respectively)	--	All samples
Environmental Protection Agency (EPA) 8260B	Volatile organic compounds (VOCs) – Full List	--	All samples.
EPA 6020B	Resource Conservation and Recovery Act (RCRA) 8 Metals	All samples	All samples
EPA Method 8082E	Polychlorinated Biphenyls (PCBs)	ISM and composite samples	All samples
EPA Method 8070A	Polynuclear Aromatic Hydrocarbons (PAHs)	--	Samples where DRO and/or RRO were detected by NWTPH-Dx
EPA Method 600/R-93/116	Asbestos Analysis of Bulk Materials using Polarized Light Microscopy	Suspected asbestos containing material from boring B05	--

5.9 Cleanup Standards and Other Numeric Criteria

Oregon's environmental cleanup rules (Oregon Administrative Rules [OAR] 340-122) establish the standards and procedures for the protection of current and future public health, safety and welfare, and the environment in the event of a release or threat of a release of a hazardous substance. In the event of a release of a hazardous substance, remedial actions shall be implemented to achieve:

- Acceptable risk levels defined in OAR 340-122-0115, as demonstrated by a residual risk assessment; or
- Numeric cleanup standards developed as part of an approved generic remedy identified or developed by the Department under OAR 340-122-0047, if applicable; or
- For areas where hazardous substances occur naturally (e.g., metals, etc.), the background level of the hazardous substances, if higher than those levels specified above.

Acceptable risk levels may be evaluated through conducting a site-specific risk assessment that calculates exposure point concentrations for specific exposure pathway receptor-scenarios or use generic for hazardous substances under ODEQ's Risk-Based Decision Making (RBDM) guideline to streamline the risk assessment process (see below).

The assessment and remediation of hazardous substances in Oregon are conducted according to OAR 340, Division 122, *Hazardous Substance Remedial Action Rules*. The following cleanup standards and numeric criteria may be applied in evaluating site assessment results.

Soil Matrix. Under the Soil Matrix Cleanup Option Rules (OARs 340-122-0320 through 0360) cleanup standards are determined by assigning site-specific values to environmental parameters (e.g., soil type, depth to ground water, etc.). For purposes of risk-based evaluations of soil, Soil Matrix Cleanup Levels are often used for screening purposes, where potentially significant levels of petroleum contamination may be present if concentrations of total petroleum hydrocarbons in soil exceed their respective soil matrix cleanup level or soil matrix level I for conservative screening purposes and may require remedial action. Concentrations of total petroleum hydrocarbons lower than their corresponding Soil Matrix Cleanup Level or Soil Matrix Level I if a cleanup level has not been determined, usually do not require any additional cleanup or risk management.

ODEQ Risk-Based Concentrations. ODEQ has compiled default risk-based screening reference levels (RBDM guidance document) for common exposure-pathway receptor-scenarios that may be utilized in lieu of site-specific risk calculations (OAR 340-122-0115). In particular, the pre-calculated RBC represents the concentration of a constituent of interest (COI) in the impacted medium (e.g., soil, ground water, or air) that potentially represents an unacceptable risk level.

The published RBCs represent a conservative default concentration of a COI in an impacted medium (e.g., soil, ground water, soil gas, or air). When COI concentrations on a site exceed the RBC, unacceptable human health impacts are possible.

- For carcinogens, the regulatory standard is represented by an excess cancer risk of one in one million ($1x10^{-6}$), and
- For non-carcinogens, this is represented by a Hazard Index of 1.

RBC exceedances typically trigger further investigation and potentially a human health risk assessment. Therefore, RBCs can be applied at sites as generic, conservative cleanup standards and are routinely used by ODEQ to determine if a site requires additional action. Site-specific parameters used in the equations to develop the RBCs are often adjusted to match actual conditions in developing site-specific cleanup levels.

RBCs are generally used to evaluate sampling analytical results as follows:

- ODEQ's lowest RBC for all pathways for residential receptors is used as an initial 'conservative' screening of a constituent. If a constituent's concentration exceeds its screening level risk-based concentration (SLRBC), it requires further evaluation. Otherwise, the constituent is considered unlikely to pose unacceptable risk to any human receptor.
- Because ODEQ Generic RBCs are based on several conservative assumptions (e.g., duration and type of exposure), exceeding an SLRBC does not necessarily indicate that additional investigation or remediation is required. Rather, the exceedance of a SLRBC may indicate that additional investigation and evaluation, including consideration of site-specific information (e.g., current, and future land uses), may be necessary to determine if remediation or other actions are necessary. In many cases, it is not possible to determine whether unacceptable risks to human

health and the environment are present, and require further action, until a risk assessment, including evaluation of current and reasonably likely land and water uses, is complete.

- In general, ODEQ considers chemical concentrations less than SLRBCs to be protective of human health.

Other Numeric Criteria. In addition to the above risk-based cleanup standards, concentrations were also compared to the following numeric criteria to determine if possible enrichment was occurring, and/or determine if there may be offsite soil disposal restrictions.

- ***Background Metals.*** Analytical data were compared with background concentrations established by ODEQ.[1],[2] ODEQ does not require cleanup for metals concentrations below default background concentrations. Background concentrations are used for screening data for metals in soil as part of the risk assessment.
- **Clean Fill Screening Levels.** Analytical data for organics were compared to clean fill screening levels (CFSLs) for upland sites established by the ODEQ.[3] ODEQ does not require materials in which contaminant concentrations are less than or equal to CFSLs to be regulated as a solid waste. Rather, these materials may be placed at upland locations that are far enough away from a surface water body, or where there are sufficient controls to avoid erosion into surface water. CFSLs are used to determine if impacts to soil may require future management and are not used for risk screening.
- **Asbestos.** Results of asbestos sampling were screened against the National Emission Standards for Hazardous Air Pollutants (NESHAP) standard for ACMs, which include products that contain more than one percent (1%) asbestos by weight.

6.0 Findings

The findings of this Focused Phase II ESA are presented in this section. Please reference:

- Figure 2 for the site layout and locations of magnetic anomalies.
- Figure 3 for sampling locations.
- Appendix A for a photolog of site work.
- Appendix B for boring logs.
- Appendix C for reconnaissance ground water FSDS sheets.
- Tables 1, and 2 for a comprehensive summary of analytical results for soil and reconnaissance ground water, respectively.
- Appendix D for laboratory analytical reports.

[1] ODEQ, March 2013, Development of Oregon Background Metals Concentrations in Soil: Technical Report, Land Quality Division Cleanup Program.

[2] ODEQ, October 28, 2002, Default Background Concentrations for metals, Memo from Toxicology Workgroup to DEQ Cleanup, Table 1 – Oregon DEQ Suggested Default Background Concentrations for Inorganic Contaminants in Various Environmental Media.

[3] ODEQ. July 2014. Clean Fill Determinations: Internal Management Directive, last updated February 21, 2019, by Heather Kuoppamaki.

- Table 6-1 (below) for a list of sampling locations.

Table 6-1. Summary of Sampling Locations

Borehole / Location ID	Date Sampled	Depth Sampled (feet)	Sampled By	Location
Soil / Sediment				
DU-2 2023	3/30/2023	0.5	ENW	Ponded Area Along Western Property Margin
DU-3 2023	3/30/2023	0.5	ENW	Entire Site (accessible surface soils)
UIC-COMP	3/30/2023	3 to 6	ENW	Drywell sediment
IP-COMP	3/30/2023	0 to 2	ENW	Suspected Infiltration Pit
EB01-7.5	4/7/2023	7.5	ENW	NE Portion of Site (Suspected Septic Tank)
EB01-SWI-9	4/7/2023	9	ENW	
EB02-5	4/7/2023	5	ENW	NW Portion of Site (buried automotive debris)
EB03-SWI-7.5	4/7/2023	7.5	ENW	SW Portion of Site
EB04-SWI-7.5	4/7/2023	7.5	ENW	SE Portion of Site
EB05-4	4/7/2023	4	ENW	Central Portion of Site (Suspected Infiltration Feature)
EB05-SWI-9	4/7/2023	9	ENW	
EB06-SWI-9	4/7/2023	9	ENW	Down Gradient of Drywell
EB07-1.5	4/7/2023	1.5	ENW	Inside Building (by ASTs)
EB08-1.5	4/7/2023	1.5	ENW	Inside Building (North Shop Area)
Ground Water				
EB01	4/7/23	15	ENW	NE Portion of Site (Suspected Septic Tank)
EB02	4/7/23	15	ENW	NW Portion of Site (buried automotive debris)
EB03	4/7/23	12.5	ENW	SW Portion of Site
EB04	4/7/23	13	ENW	SE Portion of Site
EB05	4/7/23	11	ENW	Central Portion of Site (Suspected Infiltration Feature)
EB06	4/7/23	15	ENW	Down Gradient of Drywell

6.1 Geophysical Survey

On March 17, 2023, GeoPotential conducted the geophysical survey of accessible portions of the site using the electromagnetic scanner followed by the magnetometer and GPR to further investigate magnetic anomalies. Additionally, ENW used a RIGID SeeSnake® downhole camera system in conjunction with the geophysical survey equipment to assist in tracing underground utilities (storm and sewer pipes). Any magnetic anomalies interpreted as a potential environmental concern were explored to the extent practicable using shovels and other handheld tools to identify the nature of the buried objects.

The geophysical survey identified 25 magnetic anomalies at the site (MA01 through MA25) the locations of which are presented on the Site Plan on Figure 2. Twenty (20) of the 25 magnetic anomalies were found to be either buried metallic debris or utilities or were otherwise determined to be of unlikely environmental concern. The following five (5) magnetic anomalies were interpreted as potentially posing an environmental concern and were further investigated through physical investigation, advancement of soil borings, and collection of soil, sediment, and/or ground water samples for analysis.

- **MA01/MA03 – Catch basin and dry well.** Magnetic anomaly MA01 is a storm water catch basin located at the edge of concrete on the south side of the main warehouse building. Although the outlet could not be traced due to sediment buildup in the piping, the outlet appeared to point northwest. A dry well (UIC device) under a round concrete lid was identified approximately 100 feet west of magnetic anomaly MA01 with GPR reflections suggesting an inlet pipe coming in from the east side. The SeeSnake camera, deployed through an access port in the lid, revealed perforated concrete rings and depth to sediment of approximately 3 feet bgs. Standing water was measured inside the dry well feature at 2.5 feet below the rim of the UIC. Available ODEQ records indicate this UIC device is registered under UIC ID number 11673.

  ENW cleared one soil boring (EB06) adjacent to the dry well in the presumed downgradient direction. One soil sample was collected from the soil/water interface and one reconnaissance ground water sample was collected from EB06 to assess potential subsurface impacts near the dry well. Additionally, ENW collected a depth-integrated sample of sediment from inside the dry well (composite sample UIC-COMP).

- **MA02 – Suspected Septic Tank.** A magnetic anomaly on the north side of the main site building was initially detected by geophysical instruments and was later exposed using an excavator. A subsurface feature consisting of steel and concrete was revealed several feet below ground but its shape and construction were inconsistent with a buried fuel UST. Due to limited space between the building and property line, the buried feature could not be fully excavated for positive identification. However, its angular shape (roughly rectangular) and construction (steel and concrete) were consistent with a septic tank feature. The suspected septic feature was identified as a potential environmental concern due to the long history of industrial operations at the site raising the potential for inadvertent or illegal discharge of hazardous liquids to a septic system. To further characterize subsurface conditions, ENW advanced soil boring EB01 next to the suspected septic tank and collected one soil sample from 7.5 feet bgs (estimated bottom of septic tank) and one reconnaissance ground water sample.

- **MA16/MA25 –Apparent Improvised Infiltration Feature.** An open catch basin observed at the edge of the drive path south of the site buildings was traced using the GPR and found to run west, then southwest toward the center of the site and a small storage shed. Behind the storage shed was an 8-inch pipe buried approximately 25 feet west of the catch basin, terminating at a surface depression where the pipe was exposed at the surface and filled with water. Excavation of the surface depression revealed various debris including basalt blocks and pieces of asphalt, rubber, and other solid waste. Since there was a potential for contamination related to solid waste, ENW collected a composite sample of the soil and sediment with the depressed/disturbed area. ENW also advanced soil boring EB05 immediately down gradient of the feature and collected one soil

sample at 4 feet bgs and one reconnaissance ground water sample to document subsurface conditions. A fragment of debris within the soil boring core had a fibrous appearance that can be suggestive of ACM. A sample of this material was retained for asbestos analysis.

6.2 Soil and Ground Water Investigation

6.2.1 General Site Observations

Subsurface soil materials in borings generally consisted of silty sand with gravel (fill) at the surface, transitioning to medium dense, moist, brown silty fine sand or stiff fine sandy silt below 1 foot bgs. Soils exhibited rust-colored mottling at depths ranging from 4 to 11 feet bgs. In borings EB01, EB02, EB03, EB04, and EB06, fine-grained materials transitioned to dense silty sandy gravels with angular and fractured basalt fragments at between five and 13 feet bgs, which extended to the total depth of the borings.

Saturated conditions were encountered from 6 feet to approximately 9 feet bgs. The static water level stabilized at between 1.8 feet and 7.5 feet bgs during reconnaissance ground water sampling.

Aside from surface soil staining, no field evidence of impacts was observed in borings during drilling; semi-quantitative PID headspace readings were all less than 1.0 parts per million by volume (ppmv). As suggested in Section 6.1, various debris (wood, metal, rubber, and brick) were encountered in EB05 near the suspected infiltration pit (MA20).

6.2.2 Laboratory Results – Soil

The results of laboratory analysis of soil samples are summarized on Table 1, behind the Tables tab following text. The results on Table 1 are compared to ODEQs Soil Matrix cleanup levels, ODEQ SLRBCs, ODEQ clean fill screening levels, and Regional Background Concentrations of Metals in Soils in the Portland Basin Region.

Petroleum Hydrocarbons. Laboratory analysis by NWTPH-HCID did not detect the presence of petroleum hydrocarbons in any of the samples analyzed.

RCRA Metals. Laboratory analysis by EPA 6020 reported the following pertinent results of total RCRA 8 plus additional metals in soils:

- Arsenic was detected in all samples from 1.48 milligram per kilogram (mg/Kg) to 42.9 mg/Kg, which exceeds ODEQs SLRBC of 0.43 mg/Kg. While total arsenic exceeded ODEQ's SLRBC, its concentration in 13 of the samples were less than the regional default background concentration of 8.8 mg/Kg for the Portland Basin, suggesting arsenic is not enriched at these locations. The arsenic concentrations in samples DU-2 (storm water retention pond) and IP-COMP (suspected infiltration feature) exceeded ODEQ's SLRBC and background concentration, suggesting possible enrichment.
- Total lead was detected at concentrations ranging from 2.45 mg/Kg to 59.6 mg/Kg. The reported concentrations in DU-2 exceeded ODEQ's SLRBC of 30 mg/Kg and the ODEQs regional default background concentration of 28 mg/Kg, suggesting lead in soil/sediment may be enriched at this location.

- Barium, cadmium, chromium, mercury, selenium, and silver were either not detected or did not exceed their respective ODEQ's SLRBCs or regional default background concentrations.

Polychlorinated Biphenyls (PCBs). Laboratory analysis by EPA 8081 detected PCBs in two of four samples analyzed. The PCB concentration in the sample from DU-2 at 1.6 milligrams per kilogram (mg/Kg) exceeds the ODEQ SLRBC for total Aroclors of 0.23 mg/Kg and the ODEQ CFSL of 0.034 mg/Kg.

6.2.3 Laboratory Results – Reconnaissance Ground Water

The results of laboratory analysis of reconnaissance ground water samples are summarized on Table 2, behind the Tables tab following text. Results in Table 2 are compared to ODEQs SLRBCs and ODEQ suggested default background concentrations for inorganic contaminants in fresh water.[3]

Petroleum Hydrocarbons. DRO in all samples and RRO in EB05 exceeded ODEQ's respective SLRBCs; however, the laboratory noted that the pattern of peaks associated with the DRO and RRO detections is not indicative of the fuel standard used for quantitation, suggesting an overlap from the gasoline range, the presence of a weathered product, or a consequence of high levels of natural organic materials.

To determine if the DRO and RRO detections may have been due to interference, all samples were re-analyzed after passing the extracts through a silica gel filter. Filtered results are presented in Table 2. The reported DRO concentration after filtration were below the laboratory MRL in all samples except EB05-11 and RRO was below the MRL in all samples. The concentration of DRO in EB05-11 slightly exceeded the ODEQ's SLRBC and is considered petroleum-contaminated soil. These results suggest that initial DRO and RRO detections in samples appear to be from biogenic interference rather than from a petroleum release.

Volatile Organic Constituents (VOCs). All six reconnaissance ground water samples were analyzed for VOCs and the following pertinent results were reported.

- Chloroform was detected in samples from B02, B03, and B06 at concentrations above the SLRBC of 0.22 micrograms per liter (µg/L).
- Dichloromethane and naphthalene were detected in EB05 at concentrations exceeding their respective ODEQ SLRBCs.
- All remaining VOC constituents were below their respective laboratory MRLs.

Semi-Volatile Organic Constituents (SVOCs). All samples were analyzed for PCBs and the sample from EB05 was analyzed for PAHs. The laboratory results for PCBs did not detect any of the Aroclors above the respective laboratory MRL.

Twelve PAH constituents were detected in the sample from EB05. All constituents were below their respective screening levels, except for the following:

- Benz[a]anthracene at 1.2 µg/L exceeded its SLRBC of 0.03 µg/L.
- Benzo[a]pyrene at 0.94 µg/L exceeded its SLRBC of 0.025 µg/L.

[3] For reference only. ODEQ prefers a site-specific determination of background concentrations; however, the default values may be used during the screening phase of a site investigation to make an initial assessment of whether metals concentrations at that site exceed regional background concentrations.

- Benz[b]fluoranthene at 1.1 µg/L exceeded its SLRBC of 0.25 µg/L; and,
- Dibenz[a,h]anthracene at 0.21 µg/L exceeded its SLRBC of 0.025 µg/L.

Dissolved Metals. Of the RCRA 8 metals analyzed, arsenic and barium were the only constituents detected in ground water. Arsenic in boring EB05 exceeded its ODEQ SLRBC of 0.052 µg/L and its background concentration of 2 ug/L. Barium was below both screening levels in all samples.

6.2.4 Laboratory Results – Suspected Asbestos Containing Materials (SACMs)

Asbestos was not detected in the sample of suspected ACM encountered in boring EB05, adjacent to the infiltration feature. (See Appendix D for laboratory report).

6.2.5 Data Validation

A review of the laboratory reports for soil, ground water and soil gas samples indicates samples were generally analyzed within appropriate quality assurance/quality control procedures and specified holding times (see Appendix D for laboratory data validation form completed for this project).

6.3 Preliminary Screening of Risk Drivers

A further evaluation of results against ODEQ's generic RBCs for individual exposure pathways was performed to better understand the results of this Phase II ESA relative to potential risk drivers under current and future land use conditions.

Risk Drivers in Soil. Table 1 reported arsenic, lead, and PCBs at concentrations above their respective screening levels, and therefore arsenic, lead, and PCBs represent contaminants of potential concern (COPC) in soil. An evaluation of risk drivers for soil (Table 3) showed that the residual soil impacts may pose a risk to human health through the following pathways:

- *Soil Ingestion, Dermal Contact, and Inhalation* exposure pathway for residential, urban residential, occupational, and construction worker receptors.
- *Leaching to Ground Water* exposure pathway for a future residential, urban residential, and occupational receptor.

Risk Drivers in Ground Water. Table 2 indicates DRO, chloroform, dichloromethane, naphthalene, arsenic, and PAHs exceeded their respective screening levels and, therefore chloroform, naphthalene, GRO, DRO and RRO are considered COPC in ground water. An evaluation of risk drivers for ground water (Table 4) showed that the residual soil impacts may pose a risk to human health through the following pathways:

- *Ingestion and Inhalation through Tapwater* exposure pathway for the residential, urban residential, and occupational workers.

Further Evaluation of Ground Water Pathways. The leaching to ground water and ground water ingestion pathways are considered by ODEQ to be complete only if a review of current and reasonable likely future uses of ground water in the vicinity of the site determines that the impacted ground water aquifer is

currently being used, or could be used in the future, for human consumption (i.e., domestic or occupational use of a water well containing contaminated ground water).

ENW understands there are no wells on the property, and that most wells, if present in the area, are likely to derive their water from deeper ground water resources (i.e., Troutdale Aquifer over 200 feet bgs). Given the absence of any wells on the property, and the relatively low magnitude and shallow nature of impacts, the risk of exposure by leaching or domestic use is likely to be low. A beneficial water use determination (beyond the scope of this investigation) would be required to further support an argument for exclusion of this pathway.

7.0 Conclusions and Recommendations

The information presented in this report has allowed ENW to draw the following conclusions regarding shallow surface and subsurface conditions at the subject property:

- The geophysical survey suggests an abandoned septic tank remains near the northern property margin in the northeast portion of the site. Data collected as part of this limited investigation suggests the suspected septic tank has not adversely impacted the subsurface.
- Sampling data for sediment within the onsite dry well indicate impacts to this sediment is below regulatory screening levels. Laboratory results of the reconnaissance ground water sample collected from boring EB06 sited in the assumed immediately down gradient direction relative to the dry well indicated low concentrations of chloroform at this location; however, it is unclear if the dry well is the source of chloroform given low-level detections of chloroform at similar concentrations in several of the reconnaissance ground-water samples collected from the subject property, and known impacts of chloroform in shallow water-bearing units related to release of chlorinated tap water from leaking water lines.
- During the geophysical survey, what appears to be a makeshift infiltration pit was observed in the central portion of the site. Fill soils within the pit contain total arsenic above SLRBCs and CFSLs. Reconnaissance ground water at down gradient boring EB05 contained VOCs, several PAHs, dissolved arsenic, and DRO at concentrations above SLRBCs.
- Sediments within the ponded storm-water area (DU-2) contain PCBs, total lead, and arsenic above their respective SLRBCs and/or CFSLs. Given impacts to these sediments, there is the potential for offsite migration of impacted sediment through storm-water transport.
- Reconnaissance ground water samples from EB02, EB03 and EB06, located in the SW corner, NW corner, and central portions of the site, respectively, contain chloroform above ODEQ SLRBCs. The source of chloroform in shallow ground water is currently unknown; however, as previously noted, given the consistent low-level detections of chloroform at several reconnaissance ground-water sample locations, the impacts of chloroform in the shallow water-bearing unit may be related to release of chlorinated tap water from leaking water lines.
- A preliminary evaluation of the soil and reconnaissance ground water data suggests impacts at the site could pose an unacceptable health risk to future occupational and construction workers.

However, this risk could be mitigated through further evaluation of the ground water pathways and implementation of a Contaminated Media Management Plan.

Based on the above findings, ENW recommends the following:

- Further evaluation of the existing storm water controls, including the dry well and ponded area, should be performed, primarily, to ensure impacted water or sediment is not discharged to receiving waters and, secondly, to determine the extent to which onsite storm water facilities may receive comingled storm water from offsite sources. Impacted sediment in the ponded storm-water area (DU-2) should be removed from the site to ensure no offsite migration of this sediment and reduce the potential for occupational exposure to this sediment.
- The dry well and septic tank should be properly decommissioned in accordance with applicable local, county and state regulations if these features are not intended for use in the future.
- The infiltration feature should be properly abandoned, including the removal of buried debris in this area to ensure no further enrichment of impacts to soil and ground water occurs in this area of the site.
- To ensure property handing and management of residual impacts to soil and ground water, a Contaminated Media Management Plan (CMMP) should be prepared to ensure appropriate future management and handling of impacted soil and shallow ground water media.

8.0 Limitations

The scope of this report is limited to observations made during on-site work; interviews with knowledgeable sources; and review of readily available published and unpublished reports and literature. As a result, these conclusions are based on information supplied by others as well as interpretations by qualified parties.

The focus of the work does not extend to the presence of the following conditions unless they were the express concerns of contacted personnel, report and literature authors or the work scope.

1. Naturally occurring toxic or hazardous substances in the subsurface soils, geology, and water,
2. Toxicity of substances common in current habitable environments, such as stored chemicals, products, building materials and consumables,
3. Contaminants or contaminant concentrations that are not a concern now but may be under future regulatory standards, and
4. Unpredictable events that may occur after ENW's site work, such as illegal dumping or accidental spillage.

There is no practice that is thorough enough to absolutely identify the presence of all hazardous substances that may be present at a given site. ENW's investigation has been focused only on the potential for contamination that was specifically identified in the Scope of Work. Therefore, if contamination other than that specifically mentioned is present and not identified as part of a limited Scope of Work, ENW's environmental investigation shall not be construed as a guaranteed absence of such materials. ENW have endeavored to collect representative analytical samples for the locations and

depths indicated in this report. However, no sampling program can thoroughly identify all variations in contaminant distribution.

We have performed our services for this project in accordance with our agreement and understanding with the client. This document and the information contained herein have been prepared solely for the use of the client.

ENW performed this study under a limited scope of services per our agreement. It is possible, despite the use of reasonable care and interpretation, that ENW may have failed to identify regulation violations related to the presence of hazardous substances other than those specifically mentioned at the closure site. ENW assumes no responsibility for conditions that we did not specifically evaluate or conditions that were not generally recognized as environmentally unacceptable at the time this report was prepared.

Tables

Table 1 - Summary of Analytical Data, Soil

Location ID		DU-2	DU-3	UIC-COMP	IP-COMP	EB01		EB02		EB03	EB04	EB05		EB06	EB07	EB08	Maximum Soil Concentration (remaining soil)	Soil Matrix Cleanup Level	ODEQs Screening-Level Risk-Based Concentrations SLRBCs[1] (Soil)	Background Concentrations (Regional Default)	Clean Fill Screening Levels or Background Concentrations (as applicable)	Exceeds ODEQs Screening-Level SLRBCs (Soil) and/or Soil Matrix Cleanup Level
Sample ID		DU-2 2023-230330-0.5-IS	DU-3 2023-230330-0.5-IS	UIC-COMP-230330	IP-COMP-230330	EB01-7.5	EB01-SWI-9	EB02-5	EB02-SWI-9.5	EB03-SWI-7.5	EB04-SWI-7.5	EB05-4	EB05-SWI-9	EB06-SWI-9	EB07-1.5	EB08-1.5						
Date Sampled		3/30/2023	3/30/2023	3/30/2023	3/30/2023	4/7/2023	4/7/2023	4/7/2023		4/7/2023	4/7/2023	4/7/2023	4/7/2023	4/7/2023	4/7/2023	4/7/2023						
Depth Sampled (feet)		0.5	0.5	3-?	0-3	7.5	9	5	9.5	7.5	7.5	4	9	9	1.5	1.5						
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW				Portland Basin		
Location		Ponded Area Along Western Property Margin	Entire Site (accessible surface soils)	Drywell Sediment	Suspected Infiltration Pit	NE Portion of Site (Suspected Septic Tank)		NW Portion of Site (buried automotive debris)		SW Portion of Site	SE Portion of Site	Central Portion of Site (Suspected Infiltration Feature)		Down Gradient of Drywell	Inside Building (by ASTs)	Inside Building (North Shop Area)						TRUE OR Y FALSE OR N
Constituent of Interest	Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)					
Volatile Organic Constituents																						
Metals																						
Arsenic	c, nv	**18.9**	4.46	3.46	**42.9**	2.48	6.34	2.97	5.16	1.51	3.62	3.81	4.71	4.82	2.49	1.48	42.9	NE	0.43	8.8	8.8	Y
Barium	nc, nv	97.7	82.6	131	132	121	84.3	123	113	62.1	67	115	155	125	96.3	109	155	NE	15000	790	790	N
Cadmium	nc, nv	1.14	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.14	NE	78	0.63	0.63	N
Chromium (III)	nc, nv	11.4	7.00	15.2	12.9	16.9	17.1	13.1	16.6	7.98	12.8	12.8	17.4	19.5	12.2	11	19.5	NE	120000	76	76	N
Copper	nc, nv	40.9	12.1	23.3	18.4	---	---	---	---	---	---	---	---	---	---	---	40.9	NE	3100	34	34	N
Lead	NA, nv	**59.6**	21.0	26.8	12.3	6.75	5.18	8.07	5.05	2.45	4.33	19.3	5.13	5.71	12.1	8.19	59.6	NE	30	28	28	Y
Mercury	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	NE	23	0.23	0.23	N
Nickel	c, nv	10.7	6.67	11.1	10.4	---	---	---	---	---	---	---	---	---	---	---	11.1	NE	1500	47	47	N
Silver	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	< 1 (ND)	NE	390	0.82	0.82	N
Semivolatile Organic Constituents																						
Polychlorinated biphenyls (Total PCBs)	c, v	**1.6**	0.21	<0.02 (ND)	<0.02 (ND)	---	---	---	---	---	---	---	---	---	---	---	**1.6**	NE	0.23	---	0.23	Y
Total Petroleum Hydrocarbons																						
Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	---	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	80	31	---	520	N
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	---	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	500	1100	---	90	N
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	---	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)		2800	---	140,000	N

Notes:
mg/Kg = milligram per kilogram or parts per million (ppm).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
NP = not present at or above the laboratory method reporting limit shown (HCID analysis).
--- = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.
DRO = diesel-range organics.
RRO = residual-range organics.
Shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

[1] Lowest Risk-Based Concentration for soil (screening level assumes residential use, from ODEQ RBCs dated May 2018).

(Y) indicates analyte not detected, but detection limit is above screening concentration.
BKG = constituent exceeded its SLRBC; however, was not detected above default backgound concentrations in soil

Table 2 - Summary of Analytical Data, Reconnaissance Ground Water

Location ID		EB01	EB02	EB03	EB04	EB05	EB06	Maximum Ground Water Concentration	ODEQs Screening-level Risk-Based Concentrations (SLRBCs) [1]	Background Concentrations (metals)	Exceeds Background Concentrations (metals)?	COPC?
Sample ID		EB01-GW-15	EB02-GW-15	EB03-GW-12.5	EB04-GW-13	EB05-GW-11	EB06-GW-15					
Date Sampled		4/7/23	4/7/23	4/7/23	4/7/23	4/7/23	4/7/23					
Depth Sampled (feet)		15	15	12.5	13	11	15					
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW					
Location		NE Portion of Site (Suspected Septic Tank)	NW Portion of Site (buried automotive debris)	SW Portion of Site	SE Portion of Site	Central Portion of Site (Suspected Infiltration Feature)	Down Gradient of Drywell				TRUE OR Y FALSE OR N	TRUE OR Y FALSE OR N
Constituent of Interest	Note	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)				
Volatile Organic Constituents												
Benzene	c, v	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	0.46	NE	N	N
Bromodichloromethane	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.13	NE	N	(Y)
Bromoform	c, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	3.3	NE	N	(Y)
Bromomethane	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	7.5	NE	N	N
Carbon tetrachloride	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.46	NE	N	(Y)
Chlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	77	NE	N	N
Chlorodibromomethane (dibromochloromethane)	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.17	NE	N	(Y)
Chloroethane (ethyl chloride)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	21000	NE	N	N
Chloroform	c, v	<1 (ND)	**1.2**	**1.2**	<1 (ND)	<1 (ND)	**1.2**	**1.2**	0.22	NE	N	Y
Chloromethane	nc, v	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	190	NE	N	N
1,2-Dichlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	300	NE	N	N
1,4-Dichlorobenzene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	0.48	NE	N	(Y)
1,1-Dichloroethane	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	2.8	NE	N	N
1,1-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	280	NE	N	N
cis-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	36	NE	N	N
trans-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	360	NE	N	N
Dichloromethane	c, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	**12**	<5 (ND)	**12**	11	NE	N	Y
EDB (1,2-dibromoethane)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	0.0075	NE	N	(Y)
EDC (1,2-dichloroethane)	c, v	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	0.17	NE	N	(Y)
Ethylbenzene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.5	NE	N	N
MTBE (methyl t-butyl ether)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	14	NE	N	N
Naphthalene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	**2.1**	<1 (ND)	**2.1**	0.17	NE	N	Y
iso-Propylbenzene (cumene)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	440	NE	N	N
Tetrachloroethene (PCE)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	12	NE	N	N
Toluene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1100	NE	N	N
1,1,1-Trichloroethane	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	8000	NE	N	N
1,1,2-Trichloroethane	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.28	NE	N	(Y)
Trichloroethene	NA, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.49	NE	N	(Y)
Trichlorofluoromethane (Freon 11)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1100	NE	N	N
1,2,4-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	54	NE	N	N
1,3,5-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	59	NE	N	N
Vinyl chloride	c, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	0.027	NE	N	N
Xylenes	nc, v	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	190	NE	N	N
Metals (dissolved)												
Arsenic	c, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	**9.58**	< 1 (ND)	**9.58**	0.052	2	Y	Y
Barium	nc, nv	15.7	11.6	9.99	13.5	166	27.8	166	4000	NE	N	N
Cadmium	nc, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	<1 (ND)	20	1	N	N
Chromium (III)	nc, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	1.53	1.53	30000	1	Y	N
Lead	NA, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	<1 (ND)	15	13.3	N	N
Mercury	nc, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	<1 (ND)	6	0.1	(Y)	N
Nickel	c, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	<1 (ND)	400	5.5	N	N
Silver	nc, nv	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	< 1 (ND)	<1 (ND)	100	1	N	N

Table 2 - Summary of Analytical Data, Reconnaissance Ground Water

Location ID		EB01	EB02	EB03	EB04	EB05	EB06	Maximum Ground Water Concentration	ODEQs Screening-level Risk-Based Concentrations (SLRBCs) [1]	Background Concentrations (metals)	Exceeds Background Concentrations (metals)?	COPC?
Sample ID		EB01-GW-15	EB02-GW-15	EB03-GW-12.5	EB04-GW-13	EB05-GW-11	EB06-GW-15					
Date Sampled		4/7/23	4/7/23	4/7/23	4/7/23	4/7/23	4/7/23					
Depth Sampled (feet)		15	15	12.5	13	11	15					
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW					
Location		NE Portion of Site (Suspected Septic Tank)	NW Portion of Site (buried automotive debris)	SW Portion of Site	SE Portion of Site	Central Portion of Site (Suspected Infiltration Feature)	Down Gradient of Drywell				TRUE OR Y FALSE OR N	TRUE OR Y FALSE OR N
Constituent of Interest	Note	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)				
Semivolatile Organic Constituents												
Polychlorinated biphenyls (Total PCBs)	c, v	< 0.1 (ND)	< 0.1 (ND)	< 0.1 (ND)	< 0.1 (ND)	< 0.1 (ND)	< 0.1 (ND)	<0.1 (ND)	0.006	NE	N	(Y)
Polycyclic Aromatic Hydrocarbons												
Acenaphthene	nc, v	---	---	---	---	3.3	---	3.3	510	NE	N	N
Anthracene	nc, v	---	---	---	---	0.59	---	0.59	>S	NE	N	N
Benz[a]anthracene	c, v	---	---	---	---	**1.2**	---	**1.2**	0.03	NE	N	Y
Benzo[a]pyrene (BaP equivalents)	c, nv	---	---	---	---	**0.94**	---	**0.94**	0.025	NE	N	Y
Benzo[b]fluoranthene	c, nv	---	---	---	---	**1.1**	---	**1.1**	0.25	NE	N	Y
Benzo[k]fluoranthene	c, nv	---	---	---	---	0.45	---	0.45	2.5	NE	N	N
Chrysene	c, nv	---	---	---	---	1.2	---	1.2	>S	NE	N	N
Dibenz[a,h]anthracene	c, nv	---	---	---	---	**0.21**	---	**0.21**	0.025	NE	N	Y
Fluoranthene	nc, nv	---	---	---	---	2.1	---	2.1	>S	NE	N	N
Fluorene	nc, v	---	---	---	---	0.91	---	0.91	280	NE	N	N
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	---	0.62	---	0.62	>S	NE	N	N
Pyrene	nc, v	---	---	---	---	1.9	---	1.9	>S	NE	N	N
Total Petroleum Hydrocarbons												
Generic Gasoline (GRO)	nc, v	< 100 (ND)	< 100 (ND)	< 100 (ND)	< 100 (ND)	< 100 (ND)	< 100 (ND)	<100 (ND)	110	NE	N	N
Generic Diesel / Heating Oil (DRO)	nc, v	< 50 (ND)*	< 50 (ND)*	< 50 (ND)*	< 50 (ND)*	**110 x**	< 50 (ND)*	**110 x**	100	NE	N	Y
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND)*	<250 (ND)*	<250 (ND)*	<250 (ND)*	<250 (ND)*	<250 (ND)*	250 x	300	NE	N	N

Notes:

ug/L = micrograms per Liter or parts per billion (ppb).

<# (ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.

NP = not present at or above the laboratory method reporting limit shown (HCID analysis).

[1] Lowest Risk-Based Concentration for ground water (screening level assumes residential use, from ODEQ RBCs dated May 2018).

— = not analyzed or not applicable.

c = carcinogenic

nc = noncarcinogenic

v = volatile

nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

BKG = constituent exceeded its SLRBC; however, was not detected above default backgound concentrations in soil

Bolded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

[1] Lowest Risk-Based Concentration for ground water (screening level).

(Y) indicates analyte not detected, but detection limit is above screening concentration.

x = the pattern of peaks is not indicative of the fuel standard used for quantitation.

* = sample passed through silica gel filter prior to analysis

Table 3. Further Evaluation of COPCs in Soil (Risk Drivers)

Contaminated Medium		SOIL mg/Kg (ppm)																										Maximum Detected Concentration
Exposure Pathway		Soil Ingestion, Dermal Contact, and Inhalation RBC_{ss}										Volatilization to Outdoor Air RBC_{so}						Vapor Intrusion into Buildings RBC_{si}						Leaching to Groundwater RBC_{sw}						
Receptor Scenario		Residential		Urban Residential		Occupational		Construction Worker		Excavation Worker		Residential		Urban Residential		Occupational		Residential		Urban Residential		Occupational		Residential		Urban Residential		Occupational		
Direct or Indirect Pathway (see notes)		DC		DC		DC		DC		DC		IVS		IVS		IVS		IVS		IVS		IVS		IS		IS		IS		
Contaminant of Concern	Note		Note		Note		Note		Note		Note		Note		Note		Note		Note		Note		Note		Note		Note		Note	mg/Kg (ppm)
Arsenic	c, nv	**0.43**		**1**		**1.9**		**15**		420		-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	*		*		*		42.9
Lead	NA, nv	400	L	400	L	800	L	800	L	800	L	-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	**30**	L	**30**	L	**30**	L	59.6
Semivolatile Organic Constituents																														
Polychlorinated biphenyls (Total PCBs)	c, v	**0.23**		**0.33**		**0.59**		4.9	>Csat	140	>Csat	130	>Csat	300	>Csat	1600	>Csat	130	>Csat	300	>Csat	1600	>Csat	0.24		1.1		1.1		1.6

Notes:

— = not analyzed or not applicable.

< = not detected above method reporting limit shown.

mg/Kg = milligrams per Kilogram or parts per million (ppm)

c = carcinogenic

v = volatile

nv = nonvolatile

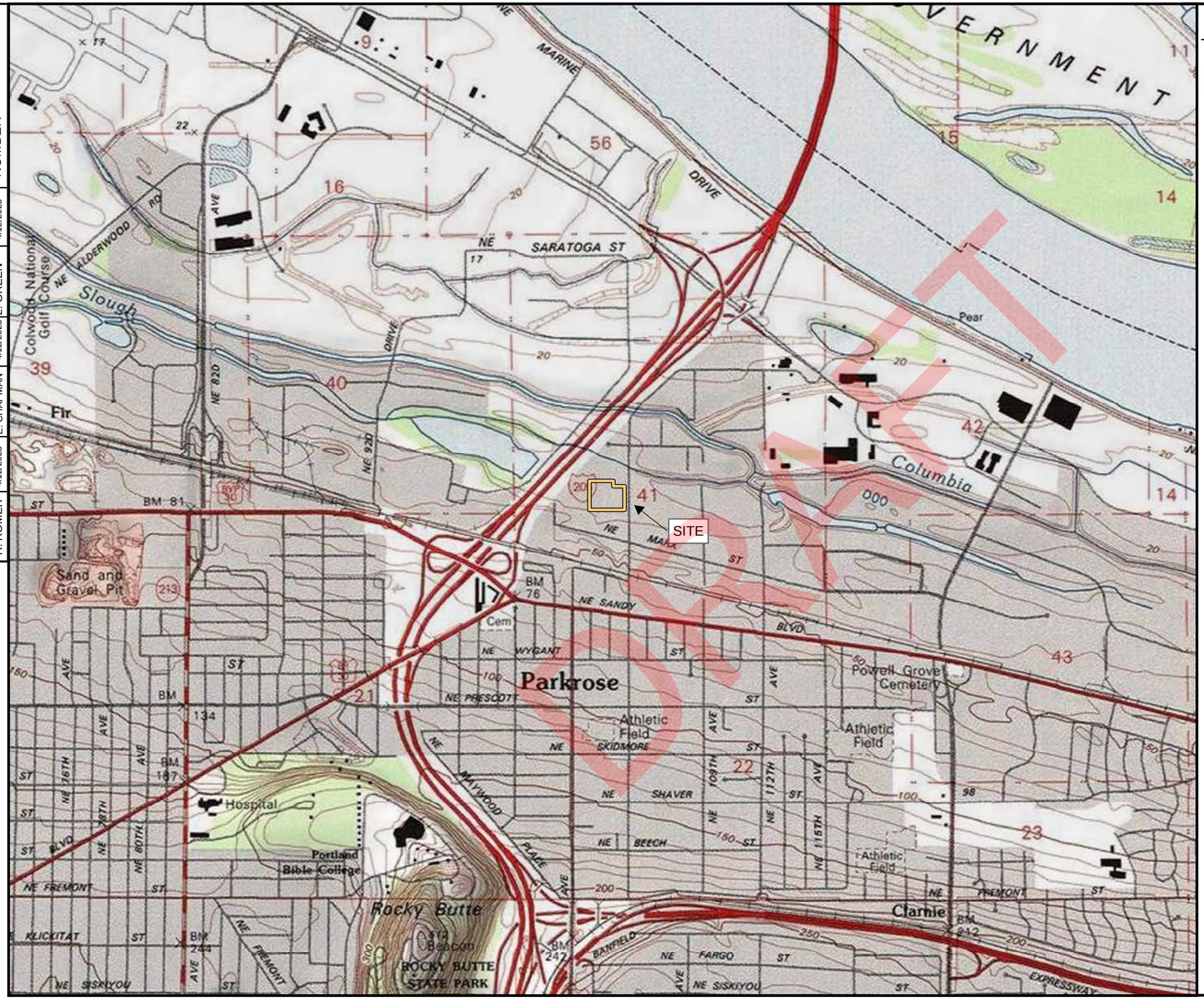
<Csat = This soil RBC exceeds the limit of three-phase equilibrium partitioning.

<Max = The constituent RBC for this pathway is greater than 100,000 mg/kg. The Department believes it is highly unlikely that such concentrations will ever be encountered.

Contaminated Medium		GROUND WATER µg/L (ppb)																				Maximum Detected Concentration
Exposure Pathway		Ingestion & Inhalation from Tapwater						Volatilization to Outdoor Air						Vapor Intrusion into Buildings						GW in Excavation		
		RBC_{tw}						RBC_{wo}						RBC_{wi}						RBC_{we}		
Receptor Scenario		Residential		Urban Residential		Occupational		Residential		Urban Residential		Occupational		Residential		Urban Residential		Occupational		Construction & Excavation Worker		
Direct or Indirect Pathway (see notes)		DS		DS		DS		IVW		IVW		IVW		IVW		IVW		IVW		DS		
Contaminant of Concern	Note		Note		Note		Note		Note		Note		Note		Note		Note		Note		Note	µg/L (ppb)
Chloroform	c, v	**0.22**		**1**		**0.98**		1400		3400		6300		120		290		1600		720		1.2
Dichloromethane	c, v	**11**		37		200		1000000		1900000		12581128		90000		160000		3300000		79000		12
Naphthalene	c, v	**0.17**		**0.78**		**0.72**		3600		8500		16000		840		2000		11000		500		2.1
Metals																						
Arsenic	c, nv	**0.052**		**0.21**		**0.31**		-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	6300		9.58
Semivolatile Organic Constituents																						
Polycyclic Aromatic Hydrocarbons																						
Benz[a]anthracene	c, v	**0.03**		**0.11**		**0.38**		-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	280		1.2
Benzo[a]pyrene (BaP equivalents)	c, nv	**0.025**		**0.08**		**0.47**		-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	-	>S	0.94
Benzo[b]fluoranthene	c, nv	**0.25**		**0.8**		4.7		-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	-	>S	1.1
Dibenz[a,h]anthracene	c, nv	**0.025**		**0.08**		0.47		-	NV	-	NV	-	NV	-	NV	-	NV	-	NV	-	>S	0.21
Total Petroleum Hydrocarbons																						
Generic Diesel / Heating Oil (DRO)	nc, v	**100**		**100**		430		-	>S	-	>S	-	>S	-	>S	-	>S	-	>S	-	>S	110

Notes:
ND = not detected at or above laboratory method reporting limits
— = not analyzed or not applicable.
ug/L = micrograms per Liter or parts per billion (ppb).
nc = noncarcinogenic
nv = nonvolatile
DRO = diesel-range organics.
<S = This groundwater RBC exceeds the solubility limit.

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
H. ROMER 4/12/2023	E. CHAPMAN 4/12/2023	L. GREEN 4/12/2023	1460-23002(V01)



LEGEND:

SUBJECT PROPERTY BOUNDARY

NOTES:

1. BASE MAP DEVELOPED BY THE USGS (MT TABOR, 1:24000, 2013)

0 1,350 2,700 5,400

Feet

N

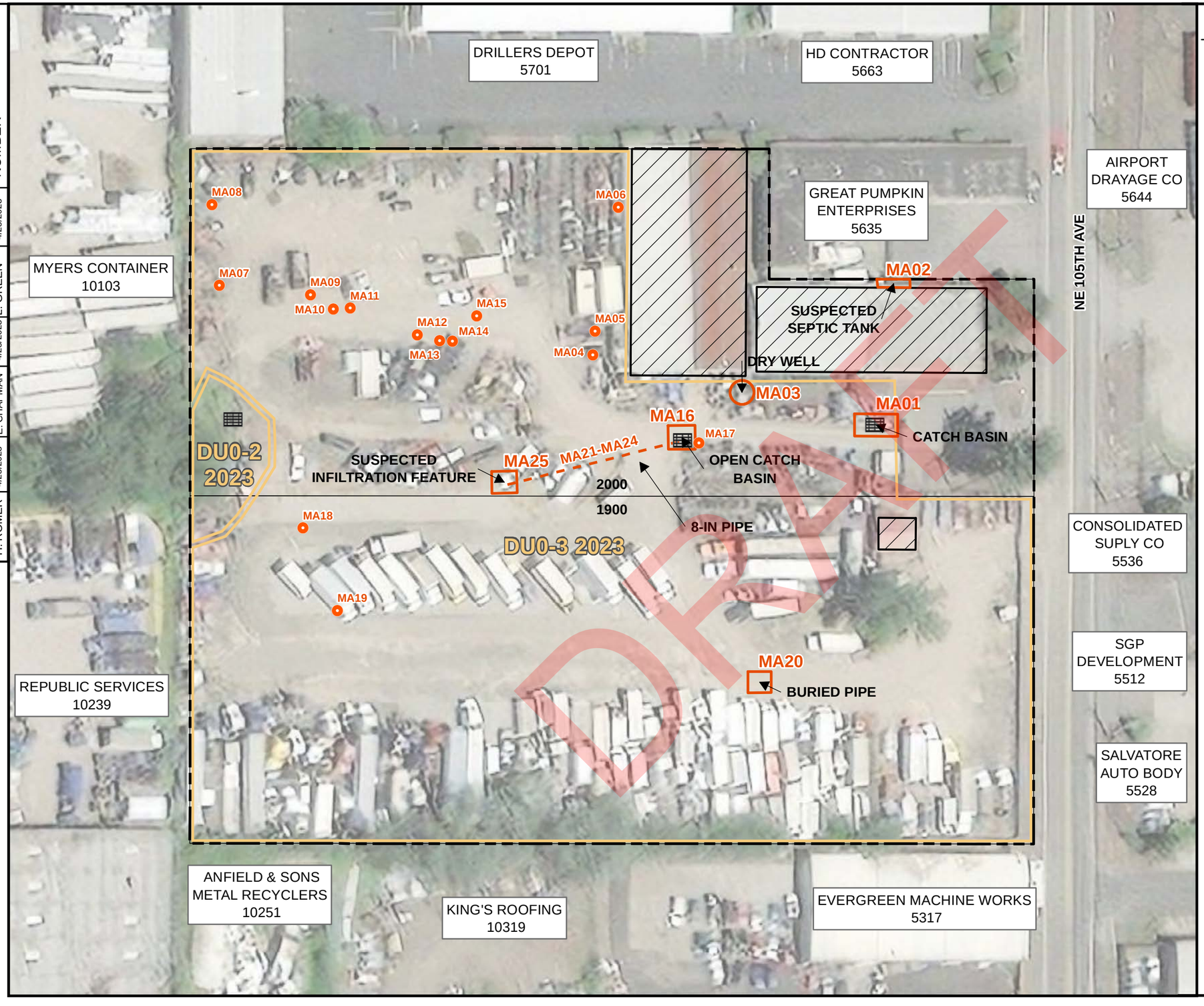
EVREN NORTHWEST INC.
environmental natural resource consultants

FIGURE 1

SITE VICINITY MAP

4.212-ACRE INDUSTRIAL PROPERTY
5605-5621 NE 105TH AVE
PORTLAND, OREGON

DRAWING NUMBER	1460-23002(V01)
APPROVED BY	4/25/2023
L. GREEN	
CHECKED BY	4/25/2023
E. CHAPMAN	
DRAWN BY	4/25/2023
H. ROMER	



LEGEND:

- SUBJECT PROPERTY BOUNDARY
- TAX LOT
- SUBJECT BUILDING
- DECISION UNIT
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY (PIPE)
- MAGNETIC ANOMALY (METAL DEBRIS)
- CATCH BASIN

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2021 AND ENW FIELD NOTES.

2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.

3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

0 55 110 220

Feet

N

EVREN NORTHWEST INC.
environmental natural resource consultants

FIGURE 2

SITE PLAN WITH GEOPHYSICAL FINDINGS

4.212-ACRE INDUSTRIAL PROPERTY
5605-5621 NE 105TH AVE
PORTLAND, OREGON

DRAWING NUMBER	1460-23002(V01)
APPROVED BY	L. GREEN 4/25/2023
CHECKED BY	E. CHAPMAN 4/25/2023
DRAWN BY	H. ROMER 4/25/2023

DRILLERS DEPOT
5701

HD CONTRACTOR
5663

AIRPORT
DRAYAGE CO
5644

GREAT PUMPKIN
ENTERPRISES
5635

NE 105TH AVE

MYERS CONTAINER
10103

EB02

EB08

EB01

EB07

DU0-3 2023

UIC-COMP-230330

DRY
WELL

EB06

DU0-2
2023

IP-COMP-230330

2000

1900

EB05

SUSPECTED
INFITRATION
FEATURE

CONSOLIDATED
SUPLY CO
5536

SGP
DEVELOPMENT
5512

REPUBLIC SERVICES
10239

EB03

EB04

SALVATORE
AUTO BODY
5528

ANFIELD & SONS
METAL RECYCLERS
10251

KING'S ROOFING
10319

EVERGREEN MACHINE WORKS
5317

LEGEND:

- SUBJECT PROPERTY BOUNDARY
- TAX LOT
- SUBJECT BUILDING
- DECISION UNIT
- BORING
- GRAB SAMPLE

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2021 AND ENW FIELD NOTES.

2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.

3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

0 55 110 220

Feet

N

EVREN NORTHWEST INC.
environmental natural resource consultants

FIGURE 3

SAMPLE LOCATION DIAGRAM

4.212-ACRE INDUSTRIAL PROPERTY
5605-5621 NE 105TH AVE
PORTLAND, OREGON

Appendix A

Site Photographs

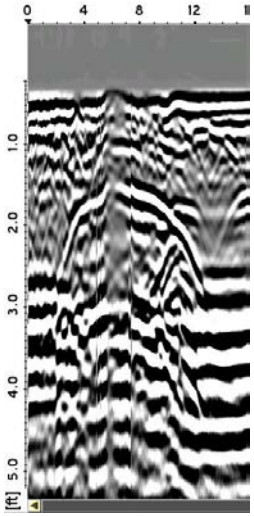
A geophysical survey was conducted to outline magnetic anomalies (MA02 on the north side of the building near the property margin).

Boring locations were cleared at the east and west ends of MA02 (view east).

The catch basin on the south side of the building (MA01) was investigated using a SeeSnake downhole camera to confirm point of discharge.

View of circular concrete cover capping a drywell (UIC) on the south side of the main warehouse building (MA03), view south. The shelving was subsequently moved to provide access for drilling.

EVREN NORTHWEST INC. environmental / natural resource consultants	Industrial Property 5605-5621 NE 105th Ave Portland, Oregon 97220	**Site Photographs**	Project No. 1460-23002-01 Appendix **A**



The ground penetrating radar (GPR) profile above suggests a pipe entering the UIC from the east side.

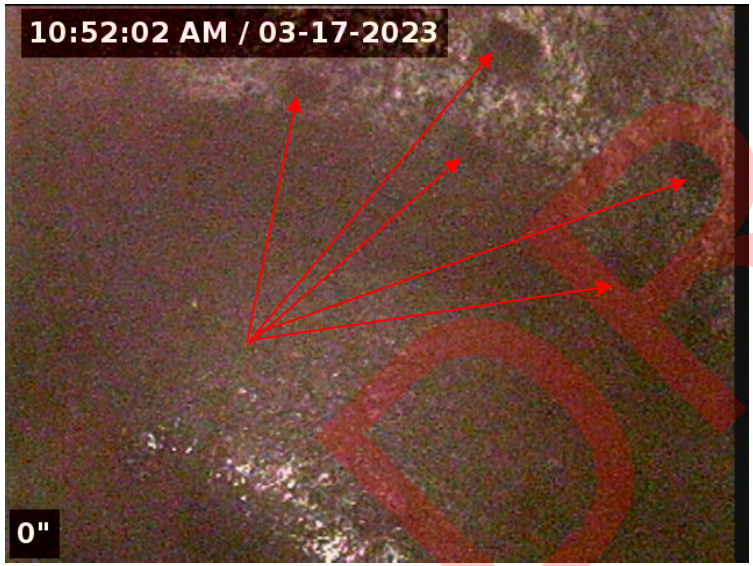
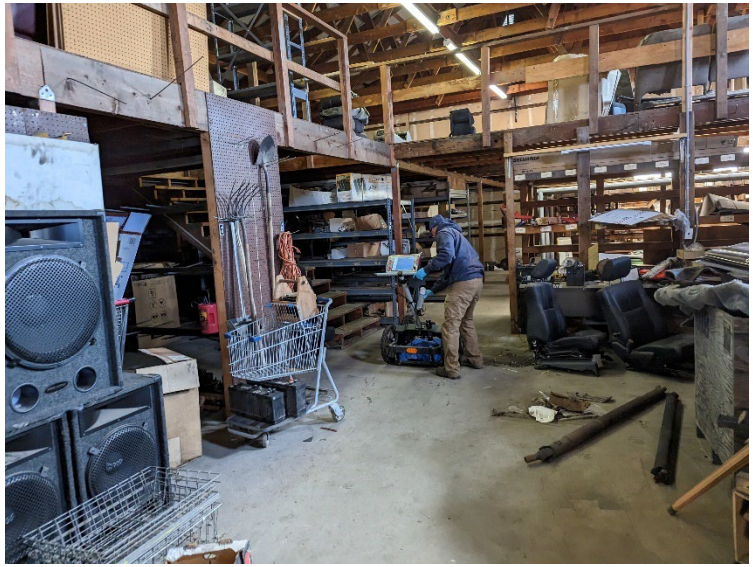


Photo of the perforated walls inside the drywell - view from opening in the top of the concrete cap using the SeeSnake camera.

ASTs for storing used oil were observed inside the northeast quarter of the shop building. A boring location was cleared near these ASTs.

The hose drain for the shop sink was observed that protruded through the wall of the shop building.

EVREN NORTHWEST INC environmental / natural resource consultants	Industrial Property 5605-5621 NE 105th Ave Portland, Oregon 97220	**Site Photographs**	Project No. 1460-23002-01 Appendix **A**



Accessible areas inside the shop and storage building were included in the geophysical survey.

The locations of magnetic anomalies were recorded using a tripod-mounted GPS receiver.

Ponded area and grated drain at the west side of the property.

Magnetic anomaly MA20 was excavated to reveal an 11-foot-long, open ended, section of a steel pipe buried horizontally.

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Excavation of MA02 near the NE property margin. Observations were suggestive of an old septic tank.

An 8-in ABS pipe was exposed on the east side of the suspected infiltration pit. Water was present in the pipe and pit.

Metal, plastic, and rubber debris was encountered in the upper two feet of the test pit exploring a suspected infiltration pit (MA25).

Using a stainless-steel hand auger to sample sediment within the UIC at the site.

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Pond (DU-2) sediments were sampled using a decontaminated stainless-steel hand auger.

Cascade Drilling's direct-push drill rig advancing boring EB01 at the west end of the suspected septic tank near the NE property margin.

Soil core from each boring was field screened, sampled, and logged. Split PVC core sleeves from EB01 are shown here.

A photoionization detector (PID) was used to conduct field headspace screening for volatile organic constituents (VOCs).

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Reconnaissance ground water sampling using a peristaltic pump at EB01.

Direct-push drill rig set up at EB02 in the NW quadrant of the site. Soil core is visible on table in foreground.

Reconnaissance ground water sampling from EB02. GPS receiver is set up on a tripod above the boring to map its location.

Drill rig set up at EB06 adjacent to the UIC at the site. Soil and reconnaissance ground water samples were collected from this boring.

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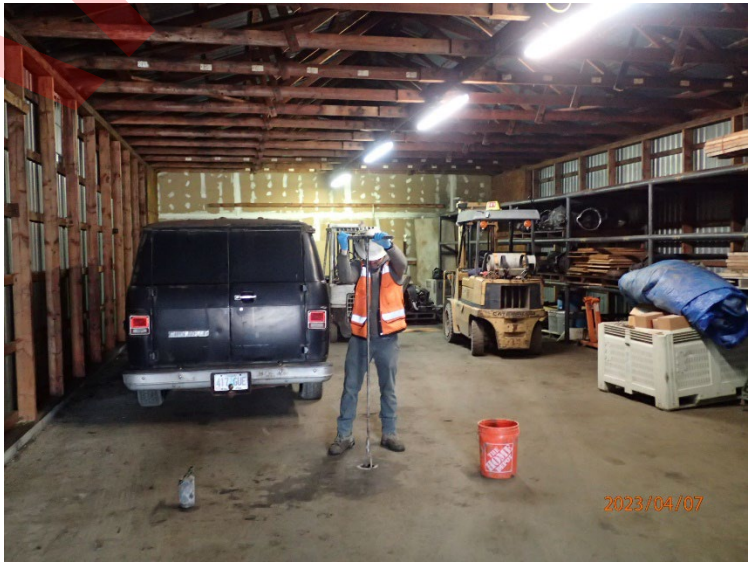
Coring through the concrete slab at EB07 next to the used oil ASTs in the southeast part of the shop building.

Soil samples were collected from EB07 using a decontaminated stainless-steel hand auger.

After sampling, the core hole was patched with concrete.



Soil samples were collected from EB08 at the north end of the shop building beneath an area of concrete-stained floor.

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Appendix B

Soil Boring Logs

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB01**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION
			2.1	9	

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade Drilling				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	15

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Silty SAND w/ GRAVEL (Fill); moist, medium brown; loose.P						
2.5						60			
			SILT (ML); medium stiff; light brown; w/ trace fine sand						
5			Stiff; no sand (6" layer)					0.2	
			Grades to light gray; some fine sand					0.0	
			rust mottling						
7.5				EB01-7.5	grab	80			
			Silty fine SAND (SM); dense; gray/tan with rusty mottling; wet at 9';						
				EB01-SWI-9	grab				EB01-GW-15
10			rades to just tank with rusty mottling					0.1	
			Fine to course SAND (SW); trace silt; medium dense; wet; medium brown						
12.5			Fine Sandy SILT (SM); medium dense to soft; med to light brown;			90			
			Silty sandy GRAVEL (GM); wet; med brown; subrounded to angular gravel						
15			End of Boring						
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB02**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION
			1.8	9.5	

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade Drilling				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	15

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Gravel (fill)						
			Silty Fine SAND (SM); dense; slightly moist; gray; micaceous						
2.5						70			
			Fine Sandy SILT (ML); stiff; slightly moist to moist; light gray; micaceous	EB02-5	grab soil			0.0	
5									
			very stiff						
7.5						70			
			Silty Fine SAND (SM); wet; dense; gray; with rusty mottling	EB02-SWI-9.5	grab soil			0.0	EB02-GW-15
10									
12.5			Silty Sandy GRAVEL (GW); very dense (hard drilling); brown and gray; wet; subrounded to angular/broken gravels			90			
15			End of Boring						
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB03**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION
		4/7/23	4.9	7.5	

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade Drilling				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	12.5

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Gravel/rock (fill)						
			Fine Sandy SILT (ML); stiff to very stiff; slightly moist; dark brown					0.1	
2.5			Silty fine SAND (SM); medium dense; moist; light to medium brown; micaceous with some rusty mottling			90		0.1	
5			Silty sandy GRAVEL (GM); dense to very dense; moist; brown with rusty mottling; subrounded to angular and broken gravels					0.1	
7.5			hard drilling Wet; hard to tell depth due to poor recovery	EB03-SWI7.5	grab soil	40			EB03-GW-15[P]
10			rock					0.1	
12.5			End of boring *refusal*					0.1	
15									
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB04**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION
		4/7/23	5.5	7.5	

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade Drilling				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	13

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Gravel fill						
			Fine Sandy SILT (ML); stiff; dark brown; slightly moist						
2.5			Sand increases			90			
			Silty fine SAND (SM); dense; moist; medium brown; rusty mottling; micaceous						
5								0.0	
7.5			grey; wet	B04-SWI-7.5	grab soil	80			EB04-GW-15
			brown; rusty mottling					0.1	
10			Silty Sandy GRAVEL (GM); dense to very dense; wet; medium brown; subrounded to angular or broken gravels					0.0	
12.5						90			
			End of boring *refusal*						
15									
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB05**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION
		4/7/23	6	9	

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade Drilling				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	11

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Gravel fill						
			Silty fine SAND (SM); dense; light brown; slightly moist						
			Grey find sand with silt; lots of debris (wood, brick); moist; dense						
2.5			concrete slab (4-6")			60			
			Silty fine SAND (SM); dense; gray; moist; debris (brick, wood, fibrous black material)	EB05-4	grab soil			0.0	
5			Fine sandy SILT (MO); gray; stiff; moist; orgniac odor; small roots					0.0	
			wet lense (4"); grades to light grey					0.0	
7.5						70		0.0	
			Silty Fine SAND (SM); medium dense to dense; wet; medium brown; rusty mottling	EB05-SWI-9	grab soil				EB05-GW-15
10						100		0.0	
			End of boring *refusal*					0.0	
12.5									
15									
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB06**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION
		4/7/23	3.2	9	

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade Drilling				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	15

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Gravel fill						
			Silty Sandy GRAVEL (GM); dense; brown; subangular; slightly moist to moist						
2.5			Silty fine SAND (SM); grey; moist; dense; roots; wood			70			
			Fine sandy SILT (ML); very stiff; gray; slightly moist					0.0	
5									
			increased fine sand						
7.5						70			
			Silty fine SAND (SM); medium brown; rusty & light gray mottling; cense; moist						
			wet	EB06-SWI-9	grab soil			0.0	EB06-GW-15
10			Silty sandy GRAVEL (GM); dense; wet; brown; subrounded to angular gravels					0.0	
12.5									
15			End of boring					0.0	
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB07**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade/ENW				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	2.5

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Concrete slab and pea gravel					0.0	
			SILT with fine SAND (SM); dense; slightly moist; dark brown	EB07-1.5	grab soil	100		0.0	
			grades to fine sand/silt					0.0	
2.5			End of boring					0.0	
5									
7.5									
10									
12.5									
15									
17.5									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Phase II Environmental Site Assessment	1460-23002-01	**EB08**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
5621 NE 105th Avenue, Portland, Oregon	4/7/23	4/7/23	2	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Cascade/ENW				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	E. Bruggeman	3

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Concrete (7") and gravel						
			SILT/SAND mix (SM/ML); medium stiff; dense; slightly moist; dark brown to gray					0.0	
				EB08-1.5	grab soil			0.4	
2.5								0.0	
			End of boring	EB08-3	grab soil			0.0	
5									
7.5									
10									
12.5									
15									
17.5									

Appendix C

Field Sampling Data Sheets

EVREN Northwest

GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME: NF 105th

PROJECT NUMBER: 1460_23002-01

Event: GW assessment

Date: 4/07/23

Field Personnel: Dan Sayles

Monitoring Well ID: EB01

Weather Conditions: Cloudy (light rain) 50° F

Start Time: 9:54

DTW (prior to purging): 2.1' bgs

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (mL/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
9:56		150	Dark Brown	very turbid					10
10:14			remains brown and turbid						
10:16			Begin sample (ambers 1st)						3.0

Total Purged: 3.0

Tubing: 3/8" LDPE

Purge Pumping Rate (approx mL/m): 150 ml/min

Decontamination method:

Well casing (in. diam): 1" PVC

Approx. Pump/Intake Depth: 12' bgs

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes: Screened from 5'-15'

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☒ None ☐ Dual

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
Gx VOCs	FTB	HCL	40ml	4		
PAHs		none	1 Liter	1	EB01-GW-15	1030
Dx		none	500ml	1		
F.F. metals		HNO3	250ml	1		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event: HNO3 poly is field filtered

Signature of Field Personnel:

EVREN Northwest

GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME:

PROJECT NUMBER: 1460-23002-01

Event: GW assessment

Date: 4/07/23

Field Personnel: Dan Sayles

Monitoring Well ID: EB02

Weather Conditions: Cloudy 50°F

Start Time: 10:46

DTW (prior to purging): 1.8 bgs

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate mL/min	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
10:47		150	GW discharging		Brown	very turbid			1.20
1055		"	Brown turbid						
11:05		"	WQ not significantly (Ambers (st)			buffer, Oxygen sample			2.70

Total Purged: 2.70

Tubing: 3/8" LDPE

Purge Pumping Rate (approx. L/m): 150 ml/min

Decontamination method:

Well casing (in. diam): 1" PVC

Approx. Pump/Intake Depth: 12'

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes: Screened from 5'-15'

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☒ None ☐ Dual Valve

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
GX, VOCs	Eurofins	HCl	40ml	4	EB02-GW-15	11:22
PAHs		None	1 L	1		
DX		None	500ml	1		
dissolved metals		HNO3 (FF)	250ml	1		

Method of Transportation of samples: FedEx (Courier)

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event: EB02 located in NW corner of salvage yard

Signature of Field Personnel:

EVREN Northwest

GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME: NE Lost

PROJECT NUMBER: 1460-23002-01

Event:

Date: 04/07/23

Field Personnel: D. Saylor

Monitoring Well ID: EB03

Weather Conditions: Cloudy 52° F

Start Time: 11:41

DTW (prior to purging): 4.90' Bgs

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (~~mL~~/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
11:42		150	light brown		sl. turbid				0.50
11:45			cloudy		clearing up significantly				1.5
11:52			clear		begin sample				

Total Purged: 1.5

Tubing: 3/8" CDPE

Purge Pumping Rate (approx. L/m): 150 ml/min

Well casing (in. diam): 1" PVC

Decontamination method:

Approx. Pump/Intake Depth: ~ 10'

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes: Screened Rem

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☒ None ☐ Dual

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
GX, VOCs	Frn3	HCl	40 ml		EB03-GW-12.5	12:05
PAHs		none	1 L			
DO		none	500 ml			
dissolved metals		HNO3 (FF)	250 ml			

Method of Transportation of samples: FedEx (Courier)

All samples were immediately placed into a cooler and packed with ice or "blue ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Signature of Field Personnel:

EVREN Northwest

GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME: NE 105th

PROJECT NUMBER: 141

Event: GW assessment

Date: 04/07/23

Field Personnel: D. Sajko

Monitoring Well ID: EB04

Weather Conditions: light rain, 54°F

Start Time: 12:28

DTW (prior to purging): ~5.5' bgs

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (~~mL~~/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
12:29		150	GW discharging						0
12:31			brown slightly turbid						.03
12:37			tan remain turbid						1.20
12:29			Began Sample (amber 1st)						1.50

Total Purged: 1.50

Tubing: 3/8" LDPE

Well casing (in. diam): 1" PVC

Purge Pumping Rate (approx. L/m): 150 ml/min

Approx. Pump/Intake Depth: ~10'

Decontamination method:

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes: Screened from 3' – 13' (refusal)

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☒ None ☐ Dual Valve

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
GX VOCs	Test	HCl	40ml	4		
TPHs	↓	none	1 L	1	EB04-GW-13	12:54
Dx		none	500ml	1		
dissolved metals		HNO3(FF)	250 ml	1		

Method of Transportation of samples: FedEx ~~Courier~~

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Signature of Field Personnel:

EVREN Northwest

GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME: NE 105th

PROJECT NUMBER: 1460-230020-01

Event: GW assessment

Date: 4/07/23

Field Personnel: D. Sayko

Monitoring Well ID: EB05

Weather Conditions: Light rain 54° F

Start Time: 13:02

DTW (prior to purging): ~75' bgs

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (mL/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
13:04		15	Dark		see	turbid			Ø
			C Dark						
13:06			B	gray		turbid			0.30
13:09			Light gray	slight		turbidity			0.80
13:11			Began to clear	slightly					1.35
			(clear by 1045)						

Total Purged: 1.35

Tubing: 3/8" LDPE

Purge Pumping Rate (approx. L/m): 150 ml/min

Well casing (in. diam): 1" PVC

Decontamination method:

Approx. Pump/Intake Depth:

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes: Screened 6-11'

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☒ None ☐ Dual Valve

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
GX, SOC PAHs	Ø	ice	40ml	4		
DV		None	1 Liter	1	EB05-GW-11	13:35
Field Filtered		None	500ml	1		
		Nitric	250ml	1		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Signature of Field Personnel:

EVREN Northwest

GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME: NE 105th

PROJECT NUMBER: 1460-23002

Event: GW assessment

Date: 4/07/23

Field Personnel: D. Saylo

Monitoring Well ID: EB06

Weather Conditions: 3.2' Light rain 52°F

Start Time: 13:34

DTW (prior to purging):

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (L/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
1335		150		Brown	Turbid				1.10
1342				light	brown	and	turbid		1.65
13:45				Begin	Sample	(Ambers	1st)		
								Total Purged:	

Tubing: 3/8" LDPE

Purge Pumping Rate (approx. L/m): 150 ml/min

Decontamination method:

Well casing (in. diam): 1" PVC

Approx. Pump/Intake Depth: ~ 12'

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes: Screened from 5'-10'

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☐ None

Sampling Method: ☐ Grundfos Pump ☐ Peristaltic Pump ☐ Bladder Pump ☐ Dual Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
8x VOCs	T	HCl	40ml	4	EB06-GW-15	1406
PAHs	↓	none	1 Liter	1		
(TF dissolved metals)		none	500ml			
		HNO3	250ml	1		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Signature of Field Personnel:

Appendix D

Laboratory Analytical Report

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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April 18, 2023

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on April 12, 2023 from the 1460-23002-01, F&BI 304164 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Neil Woller, Paul Trone, Evan Bruggeman
ENW0418R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 12, 2023 by Friedman & Bruya, Inc. from the Evren Northwest 1460-23002-01, F&BI 304164 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
304164 -01	EB05-debris

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB05-debris	Client:	Evren Northwest
Date Received:	04/12/23	Project:	1460-23002-01, F&BI 304164
Date Extracted:	04/12/23	Lab ID:	304164-01
Date Analyzed:	04/13/23	Data File:	304164-01.122
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/kg (ppm)	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	43.1
Cadmium	<1
Chromium	2.65
Lead	4.52
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	1460-23002-01, F&BI 304164
Date Extracted:	04/12/23	Lab ID:	I3-286 mb
Date Analyzed:	04/13/23	Data File:	I3-286 mb.116
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/kg (ppm)	Operator:	SP

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

Date of Report: 04/18/23
Date Received: 04/12/23
Project: 1460-23002-01, F&BI 304164

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	90	95	80-120	5
Barium	mg/kg (ppm)	50	89	96	80-120	8
Cadmium	mg/kg (ppm)	10	89	97	80-120	9
Chromium	mg/kg (ppm)	50	95	104	80-120	9
Lead	mg/kg (ppm)	50	88	97	80-120	10
Mercury	mg/kg (ppm)	5	94	104	80-120	10
Selenium	mg/kg (ppm)	5	87	90	80-120	3
Silver	mg/kg (ppm)	10	89	96	80-120	8

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

304164

SAMPLE CHAIN OF CUSTODY

04/12/23

M1

Report To Lynn Green

Company Evren Northwest

Address PO Box 14488

City, State, ZIP Portland OR 97

Phone _____ Email _____

SAMPLERS (*signature*)	
PROJECT NAME: 1460-23002-01	PO #
REMARKS Project specific RLs? - Yes / No	INVOICE TO

Page # 1 of 1

TURNAROUND TIME

- [x] Standard turnaround
- [ ] RUSH _____

Rush charges authorized by: _____

SAMPLE DISPOSAL

- [ ] Archive samples
- [ ] Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Total Rcra 8 Metals				Notes
EB05-debris	01	4/07/23	12:46	Solid	1								X				

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Dan Saito	ENW	04/11/23	1800
Received by:	ANH PHAN	FBB	04/12/23	11:39
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Summary: DATA VALID? ☒YES

Analytical Laboratory Data Validation Check Sheet

Project Name: 5605-5621 NE 105th Ave - Portland Project Number: 1460-23002-01

Date of Review: 4/20/2023 Lab. Name: F&BI Lab Batch ID #: 304164

Chain of Custody

1.) Are all requested analyses reported?	☒yes	☐no	
2.) Were the requested methods used?	☒yes	☐no	
3.) Trip blank submitted?	☐yes	☒no	
4.) Field blank submitted?	☐yes	☒no	

Timing

5.) Samples extracted within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
6.) Analysis performed within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Quality Assurance/Quality Control

7.) Are the required reporting limits reported? (MRLs vs MDLs/PQLs)	☒yes	☐no	
8.) Are all reported values above either MRL or MDL?	☒yes	☐no	
9.) Are all values between the MDL & PQL tagged as trace?	☐yes	☐no	☒NA
10a.) Are reporting limits raised for other reasons besides high analyte conc.?	☐yes	☒no	
10b.) If so, are they footnoted?	☐yes	☐no	☒NA
11.) Lab method blank completed?	☒yes	☐no	
12.) Lab, Field, or Trip Blank(s) report detections?	☐yes	☒no	

If yes, indicate blank type, chemical(s) and concentration(s): _____

13.) For inorganics and metals, is there one method blank for each analyte?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
14.) For VOCs, is there one method blank for each day of analysis?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	
15.) For SVOC's, is there one method blank for each extraction batch?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	

Accuracy

16.) Is there a surrogate spike recovery for all VOC & SVOC samples?	☐yes	☐no	☒NA
Do all surrogate spike recoveries meet accepted criteria?	☐yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
17.) Is there a spike recovery for all Laboratory Control Samples?	☒yes	☐no	☐NA
Do all LCS/LCSD spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
18.) Are all LCS/LCSD RPDs within acceptable limits?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Precision

19.) Are all matrix spike/matrix spike duplicate recoveries within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
20.) Are all matrix spike/matrix spike duplicate RPDs within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
21.) Do all RPD calculations for Field Duplicates meet accepted criteria?	☐yes	☐no	☒NA

Comments:

Initial Review By: LMP **Final** Review By: EB

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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www.friedmanandbruya.com

April 20, 2023

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on April 8, 2023 from the 1460-23002-01, F&BI 304123 project. There are 60 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Neil Woller, Paul Trone, Evan Bruggeman
ENW0420R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 8, 2023 by Friedman & Bruya, Inc. from the Evren Northwest 1460-23002-01, F&BI 304123 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
304123 -01	EB01-GW-15
304123 -02	EB02-GW-15
304123 -03	EB03-GW-12.5
304123 -04	EB04-GW-13
304123 -05	EB05-GW-11
304123 -06	EB06-GW-15
304123 -07	EB08-1.5
304123 -08	EB08-3
304123 -09	EB01-7.5
304123 -10	EB01-SWI-9
304123 -11	EB02-5
304123 -12	EB02-SWI-9.5
304123 -13	EB03-SWI-7.5
304123 -14	EB04-SWI-7.5
304123 -15	EB05-4
304123 -16	EB05-SWI-9
304123 -17	EB06-SWI-9
304123 -18	EB07-1.5

The 8260D soil matrix spike and matrix spike duplicate failed the relative percent difference for several compounds. The analytes were not detected therefore the data were acceptable.

The 8260D water laboratory control sample and laboratory control sample duplicate failed the relative percent difference for 2-butanone. The analyte was not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123
Date Extracted: 04/10/23
Date Analyzed: 04/10/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
EB08-1.5 304123-07	ND	ND	ND	105
EB01-7.5 304123-09	ND	ND	ND	106
EB01-SWI-9 304123-10	ND	ND	ND	105
EB02-5 304123-11	ND	ND	ND	105
EB02-SWI-9.5 304123-12	ND	ND	ND	105
EB03-SWI-7.5 304123-13	ND	ND	ND	105
EB04-SWI-7.5 304123-14	ND	ND	ND	105
EB05-4 304123-15	ND	ND	ND	105
EB05-SWI-9 304123-16	ND	ND	ND	105
EB06-SWI-9 304123-17	ND	ND	ND	105
EB07-1.5 304123-18	ND	ND	ND	105
Method Blank 03-888 MB	ND	ND	ND	104

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123
Date Extracted: 04/11/23
Date Analyzed: 04/11/23

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
EB01-GW-15 304123-01	<100	120
EB02-GW-15 304123-02	<100	120
EB03-GW-12.5 304123-03	<100	96
EB04-GW-13 304123-04	<100	118
EB05-GW-11 304123-05	<100	120
EB06-GW-15 304123-06	<100	114
Method Blank 03-769 MB	<100	105

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123
Date Extracted: 04/10/23
Date Analyzed: 04/12/23

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Residual Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
EB01-GW-15 304123-01	<50	<250	75
EB02-GW-15 304123-02	<50	<250	110
EB03-GW-12.5 304123-03	<50	<250	110
EB04-GW-13 304123-04	<50	<250	95
EB05-GW-11 304123-05	110 x	<250	110
EB06-GW-15 304123-06	<50	<250	82
Method Blank 03-891 MB	<50	<250	121

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123
Date Extracted: 04/10/23
Date Analyzed: 04/10/23

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Residual Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
EB01-GW-15 304123-01 1/1.3	510 x	<250	ip
EB02-GW-15 304123-02	850 x	<250	ip
EB03-GW-12.5 304123-03	1,100 x	<250	ip
EB04-GW-13 304123-04	590 x	<250	ip
EB05-GW-11 304123-05	860 x	310 x	ip
EB06-GW-15 304123-06	670 x	<250	ip
Method Blank 03-891 MB	<50	<250	125

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB01-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-01
Date Analyzed:	04/10/23	Data File:	304123-01.130
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	15.7
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB02-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-02
Date Analyzed:	04/10/23	Data File:	304123-02.131
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	11.6
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB03-GW-12.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-03
Date Analyzed:	04/10/23	Data File:	304123-03.132
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	9.99
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB04-GW-13	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-04
Date Analyzed:	04/10/23	Data File:	304123-04.133
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	13.5
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB05-GW-11	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-05
Date Analyzed:	04/10/23	Data File:	304123-05.140
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.58
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	1.14
Silver	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB05-GW-11	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-05 x10
Date Analyzed:	04/11/23	Data File:	304123-05 x10.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Barium	166

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	EB06-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-06
Date Analyzed:	04/10/23	Data File:	304123-06.141
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	27.8
Cadmium	<1
Chromium	1.53
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	NA	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	I3-277 mb
Date Analyzed:	04/10/23	Data File:	I3-277 mb.114
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB08-1.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-07
Date Analyzed:	04/10/23	Data File:	304123-07.122
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.48
Barium	109
Cadmium	<1
Chromium	11.0
Lead	8.19
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB01-7.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-09
Date Analyzed:	04/10/23	Data File:	304123-09.123
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.48
Barium	121
Cadmium	<1
Chromium	16.9
Lead	6.75
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB01-SWI-9	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-10
Date Analyzed:	04/10/23	Data File:	304123-10.136
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.34
Barium	84.3
Cadmium	<1
Lead	5.18
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB01-SWI-9	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-10 x5
Date Analyzed:	04/11/23	Data File:	304123-10 x5.053
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	17.1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB02-5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-11
Date Analyzed:	04/10/23	Data File:	304123-11.137
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.97
Barium	123
Cadmium	<1
Chromium	13.1
Lead	8.07
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB02-SWI-9.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-12
Date Analyzed:	04/10/23	Data File:	304123-12.150
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.16
Barium	113
Cadmium	<1
Lead	5.05
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB02-SWI-9.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-12 x5
Date Analyzed:	04/11/23	Data File:	304123-12 x5.054
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	16.6

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB03-SWI-7.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-13
Date Analyzed:	04/10/23	Data File:	304123-13.151
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.51
Barium	62.1
Cadmium	<1
Chromium	7.98
Lead	2.45
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB04-SWI-7.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-14
Date Analyzed:	04/10/23	Data File:	304123-14.164
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.62
Barium	67.0
Cadmium	<1
Chromium	12.8
Lead	4.33
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB05-4	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-15
Date Analyzed:	04/10/23	Data File:	304123-15.165
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.81
Barium	115
Cadmium	<1
Chromium	12.8
Lead	19.3
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB05-SWI-9	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-16
Date Analyzed:	04/10/23	Data File:	304123-16.178
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.71
Barium	155
Cadmium	<1
Lead	5.13
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB05-SWI-9	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-16 x5
Date Analyzed:	04/11/23	Data File:	304123-16 x5.055
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	17.4

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB06-SWI-9	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-17
Date Analyzed:	04/10/23	Data File:	304123-17.179
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.82
Barium	125
Cadmium	<1
Lead	5.71
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB06-SWI-9	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-17 x5
Date Analyzed:	04/11/23	Data File:	304123-17 x5.056
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	19.5

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB07-1.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-18
Date Analyzed:	04/10/23	Data File:	304123-18.183
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.49
Barium	96.3
Cadmium	<1
Chromium	12.2
Lead	12.1
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	NA	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	I3-273 mb
Date Analyzed:	04/10/23	Data File:	I3-273 mb.035
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

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

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB08-1.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/11/23	Lab ID:	304123-07
Date Analyzed:	04/11/23	Data File:	041133.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	79	128
Toluene-d8	103	84	121
4-Bromofluorobenzene	88	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB07-1.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/11/23	Lab ID:	304123-18
Date Analyzed:	04/11/23	Data File:	041134.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	79	128
Toluene-d8	102	84	121
4-Bromofluorobenzene	87	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/11/23	Lab ID:	03-0722 mb
Date Analyzed:	04/11/23	Data File:	041126.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	79	128
Toluene-d8	104	84	121
4-Bromofluorobenzene	89	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB01-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	304123-01
Date Analyzed:	04/13/23	Data File:	041305.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	89	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB02-GW-15 hs	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	304123-02
Date Analyzed:	04/13/23	Data File:	041306.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	90	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	1.2	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB03-GW-12.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	304123-03
Date Analyzed:	04/13/23	Data File:	041314.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	71	132
Toluene-d8	104	68	139
4-Bromofluorobenzene	111	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	1.2	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB04-GW-13	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	304123-04
Date Analyzed:	04/13/23	Data File:	041307.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	78	126
Toluene-d8	103	84	115
4-Bromofluorobenzene	94	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB05-GW-11	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	304123-05
Date Analyzed:	04/13/23	Data File:	041308.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	92	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	2.1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	EB06-GW-15 hs	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	304123-06
Date Analyzed:	04/13/23	Data File:	041309.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	87	78	126
Toluene-d8	101	84	115
4-Bromofluorobenzene	90	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	12	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	1.2	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/13/23	Lab ID:	03-0731 mb
Date Analyzed:	04/13/23	Data File:	041307.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	105	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	EB05-GW-11	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/17/23	Lab ID:	304123-05 1/3
Date Analyzed:	04/17/23	Data File:	041712.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	83	15	144
2-Fluorobiphenyl	89	25	128
2,4,6-Tribromophenol	76	10	142
Terphenyl-d14	107	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.63
2-Methylnaphthalene	<0.6
1-Methylnaphthalene	<0.6
Acenaphthylene	0.13
Acenaphthene	3.3
Fluorene	0.91
Phenanthrene	2.6
Anthracene	0.59
Fluoranthene	2.1
Pyrene	1.9
Benz(a)anthracene	1.2
Chrysene	1.2
Benzo(a)pyrene	0.94
Benzo(b)fluoranthene	1.1
Benzo(k)fluoranthene	0.45
Indeno(1,2,3-cd)pyrene	0.62
Dibenz(a,h)anthracene	0.21
Benzo(g,h,i)perylene	0.48

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/17/23	Lab ID:	03-915 mb
Date Analyzed:	04/17/23	Data File:	041710.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	83	15	144
2-Fluorobiphenyl	91	25	128
2,4,6-Tribromophenol	76	10	142
Terphenyl-d14	111	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EB01-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-01
Date Analyzed:	04/11/23	Data File:	041109.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	49	24	127
Decachlorobiphenyl	31	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EB02-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-02
Date Analyzed:	04/11/23	Data File:	041110.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	48	24	127
Decachlorobiphenyl	33	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EB03-GW-12.5	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-03
Date Analyzed:	04/11/23	Data File:	041111.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	58	24	127
Decachlorobiphenyl	38	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EB04-GW-13	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-04
Date Analyzed:	04/11/23	Data File:	041112.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	44	24	127
Decachlorobiphenyl	19	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EB05-GW-11	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-05
Date Analyzed:	04/11/23	Data File:	041113.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	34	24	127
Decachlorobiphenyl	16	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EB06-GW-15	Client:	Evren Northwest
Date Received:	04/08/23	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	304123-06
Date Analyzed:	04/11/23	Data File:	041114.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	55	24	127
Decachlorobiphenyl	39	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	1460-23002-01, F&BI 304123
Date Extracted:	04/10/23	Lab ID:	03-890 mb2
Date Analyzed:	04/11/23	Data File:	041107.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	51	24	127
Decachlorobiphenyl	48	10	89

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 304129-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	110	70-130

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	108	108	70-130	0

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	120	116	70-130	3

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 304114-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.25	90	92	75-125	2
Barium	ug/L (ppb)	50	24.7	93 b	97 b	75-125	4 b
Cadmium	ug/L (ppb)	5	<1	94	96	75-125	2
Chromium	ug/L (ppb)	20	3.32	101	105	75-125	4
Lead	ug/L (ppb)	10	<1	85	88	75-125	3
Mercury	ug/L (ppb)	5	<1	86	88	75-125	2
Selenium	ug/L (ppb)	5	3.42	94 b	96 b	75-125	2 b
Silver	ug/L (ppb)	5	<1	87	91	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	96	80-120
Barium	ug/L (ppb)	50	94	80-120
Cadmium	ug/L (ppb)	5	96	80-120
Chromium	ug/L (ppb)	20	98	80-120
Lead	ug/L (ppb)	10	100	80-120
Mercury	ug/L (ppb)	5	95	80-120
Selenium	ug/L (ppb)	5	95	80-120
Silver	ug/L (ppb)	5	100	80-120

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

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

Laboratory Code: 304106-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<5	98	106	75-125	8
Barium	mg/kg (ppm)	50	30.2	101 b	104 b	75-125	3 b
Cadmium	mg/kg (ppm)	10	<5	100	103	75-125	3
Chromium	mg/kg (ppm)	50	10.7	102 b	104 b	75-125	2 b
Lead	mg/kg (ppm)	50	17.5	100 b	88 b	75-125	13 b
Mercury	mg/kg (ppm	5	<5	100	99	75-125	1
Selenium	mg/kg (ppm)	5	<5	97	101	75-125	4
Silver	mg/kg (ppm)	10	<5	100	101	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	91	80-120
Barium	mg/kg (ppm)	50	93	80-120
Cadmium	mg/kg (ppm)	10	97	80-120
Chromium	mg/kg (ppm)	50	106	80-120
Lead	mg/kg (ppm)	50	96	80-120
Mercury	mg/kg (ppm)	5	99	80-120
Selenium	mg/kg (ppm)	5	94	80-120
Silver	mg/kg (ppm)	10	94	80-120

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

Laboratory Code: 304123-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	3 vo	5 vo	50-150	50 vo
Chloromethane	mg/kg (ppm)	2	<0.5	26 vo	30 vo	50-150	14
Vinyl chloride	mg/kg (ppm)	2	<0.05	27 vo	30 vo	50-150	11
Bromomethane	mg/kg (ppm)	2	<0.5	50	52	50-150	4
Chloroethane	mg/kg (ppm)	2	<0.5	45 vo	49 vo	50-150	9
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	29 vo	34 vo	50-150	16
Acetone	mg/kg (ppm)	10	<5	47 vo	78	50-150	50 vo
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	48 vo	52	50-150	8
Hexane	mg/kg (ppm)	2	<0.25	13 vo	16 vo	50-150	21 vo
Methylene chloride	mg/kg (ppm)	2	<0.5	64	68	50-150	6
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	82	86	50-150	5
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	64	68	50-150	6
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	70	75	50-150	7
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	74	80	50-150	8
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	83	87	50-150	5
Chloroform	mg/kg (ppm)	2	<0.05	76	84	50-150	10
2-Butanone (MEK)	mg/kg (ppm)	10	<1	51	78	50-150	42 vo
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	84	89	50-150	6
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	70	77	50-150	10
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	65	72	50-150	10
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	65	72	50-150	10
Benzene	mg/kg (ppm)	2	<0.03	74	80	50-150	8
Trichloroethene	mg/kg (ppm)	2	<0.02	72	78	50-150	8
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	68	73	50-150	7
Bromodichloromethane	mg/kg (ppm)	2	<0.05	81	87	50-150	7
Dibromomethane	mg/kg (ppm)	2	<0.05	72	79	50-150	9
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	72	80	50-150	11
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	75	83	50-150	10
Toluene	mg/kg (ppm)	2	<0.05	82	90	50-150	9
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	75	85	50-150	12
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	83	92	50-150	10
2-Hexanone	mg/kg (ppm)	10	<0.5	62	77	50-150	22 vo
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	75	83	50-150	10
Tetrachloroethene	mg/kg (ppm)	2	<0.025	85	94	50-150	10
Dibromochloromethane	mg/kg (ppm)	2	<0.05	82	93	50-150	13
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	86	95	50-150	10
Chlorobenzene	mg/kg (ppm)	2	<0.05	82	89	50-150	8
Ethylbenzene	mg/kg (ppm)	2	<0.05	89	97	50-150	9
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	85	91	50-150	7
m,p-Xylene	mg/kg (ppm)	4	<0.1	84	91	50-150	8
o-Xylene	mg/kg (ppm)	2	<0.05	83	89	50-150	7
Styrene	mg/kg (ppm)	2	<0.05	82	90	50-150	9
Isopropylbenzene	mg/kg (ppm)	2	<0.05	84	90	50-150	7
Bromoform	mg/kg (ppm)	2	<0.05	88	95	50-150	8
n-Propylbenzene	mg/kg (ppm)	2	<0.05	79	88	50-150	11
Bromobenzene	mg/kg (ppm)	2	<0.05	85	95	50-150	11
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	79	86	50-150	8
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	86	95	50-150	10
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	73	87	50-150	17
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	78	87	50-150	11
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	77	86	50-150	11
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	82	92	50-150	11
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	79	87	50-150	10
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	85	94	50-150	10
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	85	95	50-150	11
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	88	99	50-150	12
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	84	97	50-150	14
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	86	93	50-150	8
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	76	81	50-150	6
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	90	99	50-150	10
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	96	103	50-150	7
Naphthalene	mg/kg (ppm)	2	<0.05	76	83	50-150	9
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	89	97	50-150	9

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	50	10-150
Chloromethane	mg/kg (ppm)	2	61	21-140
Vinyl chloride	mg/kg (ppm)	2	81	35-135
Bromomethane	mg/kg (ppm)	2	128	20-151
Chloroethane	mg/kg (ppm)	2	101	21-147
Trichlorofluoromethane	mg/kg (ppm)	2	99	47-143
Acetone	mg/kg (ppm)	10	55	13-169
1,1-Dichloroethene	mg/kg (ppm)	2	95	49-138
Hexane	mg/kg (ppm)	2	88	61-141
Methylene chloride	mg/kg (ppm)	2	88	25-146
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	98	65-129
trans-1,2-Dichloroethene	mg/kg (ppm)	2	98	62-126
1,1-Dichloroethane	mg/kg (ppm)	2	96	64-131
2,2-Dichloropropane	mg/kg (ppm)	2	109	76-150
cis-1,2-Dichloroethene	mg/kg (ppm)	2	106	62-127
Chloroform	mg/kg (ppm)	2	99	67-129
2-Butanone (MEK)	mg/kg (ppm)	10	74	19-171
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	107	73-123
1,1,1-Trichloroethane	mg/kg (ppm)	2	103	66-125
1,1-Dichloropropene	mg/kg (ppm)	2	96	70-131
Carbon tetrachloride	mg/kg (ppm)	2	97	53-135
Benzene	mg/kg (ppm)	2	100	70-130
Trichloroethene	mg/kg (ppm)	2	97	62-116
1,2-Dichloropropane	mg/kg (ppm)	2	88	70-130
Bromodichloromethane	mg/kg (ppm)	2	102	70-130
Dibromomethane	mg/kg (ppm)	2	95	70-130
4-Methyl-2-pentanone	mg/kg (ppm)	10	94	64-137
cis-1,3-Dichloropropene	mg/kg (ppm)	2	99	68-137
Toluene	mg/kg (ppm)	2	105	70-130
trans-1,3-Dichloropropene	mg/kg (ppm)	2	96	70-130
1,1,2-Trichloroethane	mg/kg (ppm)	2	104	70-130
2-Hexanone	mg/kg (ppm)	10	77	55-145
1,3-Dichloropropane	mg/kg (ppm)	2	99	70-130
Tetrachloroethene	mg/kg (ppm)	2	116	69-131
Dibromochloromethane	mg/kg (ppm)	2	102	61-137
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	109	70-130
Chlorobenzene	mg/kg (ppm)	2	102	70-130
Ethylbenzene	mg/kg (ppm)	2	111	70-130
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	102	56-134
m,p-Xylene	mg/kg (ppm)	4	105	70-130
o-Xylene	mg/kg (ppm)	2	101	70-130
Styrene	mg/kg (ppm)	2	100	70-130
Isopropylbenzene	mg/kg (ppm)	2	101	67-131
Bromoform	mg/kg (ppm)	2	108	70-130
n-Propylbenzene	mg/kg (ppm)	2	97	70-130
Bromobenzene	mg/kg (ppm)	2	105	70-130
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	94	70-130
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	103	70-130
1,2,3-Trichloropropane	mg/kg (ppm)	2	91	70-130
2-Chlorotoluene	mg/kg (ppm)	2	96	70-130
4-Chlorotoluene	mg/kg (ppm)	2	92	70-130
tert-Butylbenzene	mg/kg (ppm)	2	95	70-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	96	70-130
sec-Butylbenzene	mg/kg (ppm)	2	101	68-131
p-Isopropyltoluene	mg/kg (ppm)	2	100	70-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	106	70-130
1,4-Dichlorobenzene	mg/kg (ppm)	2	101	70-130
1,2-Dichlorobenzene	mg/kg (ppm)	2	101	70-130
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	84	70-130
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	106	66-140
Hexachlorobutadiene	mg/kg (ppm)	2	109	67-141
Naphthalene	mg/kg (ppm)	2	93	69-119
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	106	66-138

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

Laboratory Code: 304123-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	98	50-150
Chloromethane	ug/L (ppb)	10	<10	92	50-150
Vinyl chloride	ug/L (ppb)	10	<0.02	103	16-176
Bromomethane	ug/L (ppb)	10	<5	141	10-193
Chloroethane	ug/L (ppb)	10	<1	144	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	110	50-150
Acetone	ug/L (ppb)	50	<50	71	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	106	50-150
Hexane	ug/L (ppb)	10	<5	109	49-161
Methylene chloride	ug/L (ppb)	10	<5	106	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	109	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	110	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	105	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	116	10-335
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	109	50-150
Chloroform	ug/L (ppb)	10	1.2	108	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	86	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	111	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	104	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	111	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	109	50-150
Benzene	ug/L (ppb)	10	<0.35	103	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	103	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	103	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	109	50-150
Dibromomethane	ug/L (ppb)	10	<1	104	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	108	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	105	48-145
Toluene	ug/L (ppb)	10	<1	102	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	97	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	101	50-150
2-Hexanone	ug/L (ppb)	50	<10	88	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	100	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	93	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	101	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	92	50-150
Chlorobenzene	ug/L (ppb)	10	<1	104	50-150
Ethylbenzene	ug/L (ppb)	10	<1	106	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	105	50-150
m,p-Xylene	ug/L (ppb)	20	<2	108	50-150
o-Xylene	ug/L (ppb)	10	<1	113	50-150
Styrene	ug/L (ppb)	10	<1	106	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	109	50-150
Bromoform	ug/L (ppb)	10	<5	109	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	110	50-150
Bromobenzene	ug/L (ppb)	10	<1	107	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	107	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	116	10-235
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	105	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	111	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	109	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	107	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	110	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	108	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	108	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	104	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	101	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	94	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	97	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	96	42-150
Naphthalene	ug/L (ppb)	10	<1	100	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	99	44-155

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	95	100	70-130	5
Chloromethane	ug/L (ppb)	10	85	89	70-130	5
Vinyl chloride	ug/L (ppb)	10	90	101	70-130	12
Bromomethane	ug/L (ppb)	10	107	121	28-182	12
Chloroethane	ug/L (ppb)	10	98	109	70-130	11
Trichlorofluoromethane	ug/L (ppb)	10	103	114	70-130	10
Acetone	ug/L (ppb)	50	62	69	42-155	11
1,1-Dichloroethene	ug/L (ppb)	10	94	107	70-130	13
Hexane	ug/L (ppb)	10	95	107	50-161	12
Methylene chloride	ug/L (ppb)	10	93	102	29-192	9
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	96	109	70-130	13
trans-1,2-Dichloroethene	ug/L (ppb)	10	97	111	70-130	13
1,1-Dichloroethane	ug/L (ppb)	10	94	107	70-130	13
2,2-Dichloropropane	ug/L (ppb)	10	109	121	70-130	10
cis-1,2-Dichloroethene	ug/L (ppb)	10	97	111	70-130	13
Chloroform	ug/L (ppb)	10	98	109	70-130	11
2-Butanone (MEK)	ug/L (ppb)	50	73	94	50-157	25 vo
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	101	116	70-130	14
1,1,1-Trichloroethane	ug/L (ppb)	10	96	109	70-130	13
1,1-Dichloropropene	ug/L (ppb)	10	94	108	70-130	14
Carbon tetrachloride	ug/L (ppb)	10	100	117	70-130	16
Benzene	ug/L (ppb)	10	91	104	70-130	13
Trichloroethene	ug/L (ppb)	10	94	104	70-130	10
1,2-Dichloropropane	ug/L (ppb)	10	92	105	70-130	13
Bromodichloromethane	ug/L (ppb)	10	98	112	70-130	13
Dibromomethane	ug/L (ppb)	10	93	107	70-130	14
4-Methyl-2-pentanone	ug/L (ppb)	50	97	108	70-130	11
cis-1,3-Dichloropropene	ug/L (ppb)	10	96	109	70-130	13
Toluene	ug/L (ppb)	10	102	103	70-130	1
trans-1,3-Dichloropropene	ug/L (ppb)	10	99	100	70-130	1
1,1,2-Trichloroethane	ug/L (ppb)	10	102	103	70-130	1
2-Hexanone	ug/L (ppb)	50	88	86	69-130	2
1,3-Dichloropropane	ug/L (ppb)	10	103	104	70-130	1
Tetrachloroethene	ug/L (ppb)	10	97	98	70-130	1
Dibromochloromethane	ug/L (ppb)	10	108	107	63-142	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	94	95	70-130	1
Chlorobenzene	ug/L (ppb)	10	103	106	70-130	3
Ethylbenzene	ug/L (ppb)	10	106	108	70-130	2
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	108	110	70-130	2
m,p-Xylene	ug/L (ppb)	20	110	111	70-130	1
o-Xylene	ug/L (ppb)	10	114	115	70-130	1
Styrene	ug/L (ppb)	10	107	106	70-130	1
Isopropylbenzene	ug/L (ppb)	10	110	101	70-130	9
Bromoform	ug/L (ppb)	10	110	110	50-157	0
n-Propylbenzene	ug/L (ppb)	10	93	102	70-130	9
Bromobenzene	ug/L (ppb)	10	98	111	70-130	12
1,3,5-Trimethylbenzene	ug/L (ppb)	10	96	109	52-150	13
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	99	105	70-130	6
1,2,3-Trichloropropane	ug/L (ppb)	10	108	97	70-130	11
2-Chlorotoluene	ug/L (ppb)	10	92	106	70-130	14
4-Chlorotoluene	ug/L (ppb)	10	95	105	70-130	10
tert-Butylbenzene	ug/L (ppb)	10	95	106	70-130	11
1,2,4-Trimethylbenzene	ug/L (ppb)	10	95	104	70-130	9
sec-Butylbenzene	ug/L (ppb)	10	94	102	70-130	8
p-Isopropyltoluene	ug/L (ppb)	10	106	105	70-130	1
1,3-Dichlorobenzene	ug/L (ppb)	10	96	105	70-130	9
1,4-Dichlorobenzene	ug/L (ppb)	10	102	103	70-130	1
1,2-Dichlorobenzene	ug/L (ppb)	10	103	105	70-130	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	104	112	70-130	7
1,2,4-Trichlorobenzene	ug/L (ppb)	10	99	109	70-130	10
Hexachlorobutadiene	ug/L (ppb)	10	100	110	70-130	10
Naphthalene	ug/L (ppb)	10	96	107	70-130	11
1,2,3-Trichlorobenzene	ug/L (ppb)	10	100	108	69-143	8

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	77	82	50-104	6
2-Methylnaphthalene	ug/L (ppb)	5	90	94	54-109	4
1-Methylnaphthalene	ug/L (ppb)	5	97	98	55-108	1
Acenaphthylene	ug/L (ppb)	5	89	96	60-114	8
Acenaphthene	ug/L (ppb)	5	88	94	57-110	7
Fluorene	ug/L (ppb)	5	94	100	61-115	6
Phenanthrene	ug/L (ppb)	5	93	97	63-113	4
Anthracene	ug/L (ppb)	5	91	100	65-117	9
Fluoranthene	ug/L (ppb)	5	93	102	68-121	9
Pyrene	ug/L (ppb)	5	95	102	66-125	7
Benz(a)anthracene	ug/L (ppb)	5	94	102	70-130	8
Chrysene	ug/L (ppb)	5	98	106	67-119	8
Benzo(a)pyrene	ug/L (ppb)	5	91	99	68-126	8
Benzo(b)fluoranthene	ug/L (ppb)	5	84	93	62-130	10
Benzo(k)fluoranthene	ug/L (ppb)	5	90	100	67-125	11
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	93	99	63-131	6
Dibenz(a,h)anthracene	ug/L (ppb)	5	94	100	62-133	6
Benzo(g,h,i)perylene	ug/L (ppb)	5	94	100	57-133	6

Date of Report: 04/20/23
Date Received: 04/08/23
Project: 1460-23002-01, F&BI 304123

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	0.25	83	74	25-111	11
Aroclor 1260	ug/L (ppb)	0.25	93	86	23-123	8

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

304123

SAMPLE CHAIN OF CUSTODY

04/08/23 VW3/VS~~2~~ J2 Page # 1 of 2 N3

Report To Lynn Green
Company Evren Northwest
Address Po Box 14488
City, State, ZIP Portland OR 97293
Phone 503 452-5561 Email lynng@evren-nw.com

SAMPLERS (*signature*)

PROJECT NAME: 1460-23002-01

PO #

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [X] Standard turnaround C3
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 metals dissolved	TOTAL PCBs	Dx w/SG		Notes
EB01-GW-15	01A-G	4/07/23	10:30	GW	7	X	X			X		X	X		X		X per EB
EB02-GW-15	02A-	4/07/23	11:22	GW	7	X	X			X		X	X		X		4/8/23 ME
EB03-GW-12.5	03A-	4/07/23	12:05	GW	7	X	X			X		X	X		X		● per EB
EB04-GW-13	04A-	4/07/23	12:54	GW	7	X	X			X		X	X		X		4/17/23 ME
EB05-GW-11	05A-	4/07/23	13:25	GW	7	X	X			X	●	X	X		X		
EB06-GW-15	06A-	4/07/23	14:06	GW	7	X	X			X		X	X		X		
EB08-1.5	07A-E	4-7-23	15:00	SOIL	5				X	X				X			
EB08-3	08 ~~A-E~~	4-7-23	15:05	SOIL	1												Hold

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Evan Bergeman	ENW	4-7-23	17:00
Received by:	James Bruya	F&B	4/8	1600
Relinquished by:				
Received by:		Samples received at 6 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

(NP)

304123

SAMPLE CHAIN OF CUSTODY

04/08/23 VW3/ J2/ N3/ Page # 2 of 2/C3

Report To LYNN GREEN

Company EVREN-NW

Address 40 SE 24TH AVE

City, State, ZIP PORTLAND, OR 97214

Phone 503-452-5516 Email lynn@evren-nw.com

SAMPLERS (*signature*)

PROJECT NAME: 1460-23002-01

PO #

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8				Notes
EB01-7.5	09	4-7-23	9:50	Soil	1				X				X				Hold
EB01-SW1-9	10A-E		9:40		5				X				X				
EB02-5	11		10:30		1				X				X				
EB02-SW1-9.5	12A-E		10:24		5				X				X				
EB03-SW1-7.5	13		11:05		1				X				X				
EB04-SW1-7.5	14A-E		11:55		5				X				X				
EB05-4	15		12:45		5				X				X				
EB05-SW1-9	16		12:35		5				X				X				
EB06-SW1-9	17		13:12		5				X				X				
EB07-1.5	18	↓	14:35	↓	5				X	X			X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	EVAN BRADLEMAN	EVREN	4-7-23	17:00
Received by:	JAMES BRUYA	F&B	4/8	1600
Relinquished by:				
Received by:		Samples received at 6 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Summary: DATA VALID? ☒YES

Analytical Laboratory Data Validation Check Sheet

Project Name: 5605-5621 NE 105th Ave - Portland Project Number: 1460-23002-01

Date of Review: 4/20/2023 Lab. Name: F&BI Lab Batch ID #: 304123

Chain of Custody

1.) Are all requested analyses reported?	☒yes	☐no	
2.) Were the requested methods used?	☒yes	☐no	
3.) Trip blank submitted?	☐yes	☒no	
4.) Field blank submitted?	☐yes	☒no	

Timing

5.) Samples extracted within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
6.) Analysis performed within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Quality Assurance/Quality Control

7.) Are the required reporting limits reported? (MRLs vs MDLs/PQLs)	☒yes	☐no	
8.) Are all reported values above either MRL or MDL?	☒yes	☐no	
9.) Are all values between the MDL & PQL tagged as trace?	☐yes	☐no	☒NA
10a.) Are reporting limits raised for other reasons besides high analyte conc.?	☐yes	☒no	
10b.) If so, are they footnoted?	☐yes	☐no	☒NA
11.) Lab method blank completed?	☒yes	☐no	
12.) Lab, Field, or Trip Blank(s) report detections?	☐yes	☒no	

If yes, indicate blank type, chemical(s) and concentration(s): _____

13.) For inorganics and metals, is there one method blank for each analyte?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
14.) For VOCs, is there one method blank for each day of analysis?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
15.) For SVOC's, is there one method blank for each extraction batch?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	

Accuracy

16.) Is there a surrogate spike recovery for all VOC & SVOC samples?	☒yes	☐no	☐NA
Do all surrogate spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
17.) Is there a spike recovery for all Laboratory Control Samples?	☒yes	☐no	☐NA
Do all LCS/LCSD spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
18.) Are all LCS/LCSD RPDs within acceptable limits?	☐yes	☒no	☐NA
If not, are all discrepancies footnoted?	☒yes	☐no	☐NA

The 8260D water laboratory control sample and laboratory control sample duplicate failed the relative percent difference for 2-butanone. The analyte was not detected therefore, the data were acceptable. (vo)

Precision

19.) Are all matrix spike/matrix spike duplicate recoveries within acceptable limits?	☐yes	☒no	☐NA
If not, are all discrepancies footnoted?	☒yes	☐no	☐NA

The 8260D soil matrix spike and matrix spike duplicate failed the relative percent difference for several compounds. The analytes were not detected therefore the data were acceptable. (vo)

20.) Are all matrix spike/matrix spike duplicate RPDs within acceptable limits?	☐yes	☒no	☐NA

If not, are all discrepancies footnoted? ☒yes ☐no ☐NA

Method 8260D several analytes (vo)

21.) Do all RPD calculations for Field Duplicates meet accepted criteria? ☐yes ☐no ☒NA

Comments:

Several analytes were spiked at levels that were less than five times that present in sample; Therefore, matrix spike recoveries may not be meaningful. (b)

Headspace was present in the containers used for analysis of samples EB02-GW-15 and EB06-GW-15 using method 8260D. (hs)

Gasoline was not detected in one or more of duplicate analyses for method NWTPH-Gx; Therefore, calculation of the RPD is not applicable. (nm)

The chromatographic pattern of sample EB05-GW-11 does not resemble the diesel fuel standard used for quantitation. (x)

Initial Review By: LMP **Final** Review By: EB

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

April 12, 2023

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on March 31, 2023 from the 1460-23002-01, F&BI 303524 project. There are 17 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Neil Woller, Paul Trone, Evan Bruggeman
ENW0412R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 31, 2023 by Friedman & Bruya, Inc. from the Evren Northwest 1460-23002-01, F&BI 303524 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
303524 -01	DU-2 2023-230330-0.5-IS
303524 -02	DU-3 2023-230330-0.5-IS
303524 -03	UIC-COMP-230330
303524 -04	IP-COMP-230330

The 8082A Aroclor 1016 matrix spike duplicate exceeded the acceptance criteria. The laboratory control sample passed the acceptance criteria, therefore the results were due to matrix effect.

All other quality control requirements were acceptable.

Date of Report: 04/12/23
Date Received: 03/31/23
Project: 1460-23002-01, F&BI 303524
Date Extracted: 04/03/23 and 04/05/23
Date Analyzed: 04/03/23 and 04/05/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
DU-2 2023-230330-0.5-IS 303524-01	ND	ND	ND	89
DU-3 2023-230330-0.5-IS 303524-02	ND	ND	ND	87
UIC-COMP-230330 303524-03	ND	ND	ND	100
IP-COMP-230330 303524-04	ND	ND	ND	104
Method Blank 03-842 MB	ND	ND	ND	107
Method Blank 03-868 MB	ND	ND	ND	88

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Analysis For Total Metals By EPA Method 6020B

Client ID:	DU-2 2023-230330-0.5-IS	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	303524-01
Date Analyzed:	04/05/23	Data File:	303524-01.102
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	18.9
Barium	97.7
Cadmium	1.14
Chromium	11.4
Copper	40.9
Lead	59.6
Mercury	<1
Nickel	10.7
Selenium	<1
Silver	<1
Zinc	147

Analysis For Total Metals By EPA Method 6020B

Client ID:	DU-3 2023-230330-0.5-IS	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	303524-02
Date Analyzed:	04/05/23	Data File:	303524-02.103
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.46
Barium	82.6
Cadmium	<1
Chromium	7.00
Copper	12.1
Lead	21.0
Mercury	<1
Nickel	6.67
Selenium	<1
Silver	<1
Zinc	55.3

Analysis For Total Metals By EPA Method 6020B

Client ID:	UIC-COMP-230330	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	03/31/23	Lab ID:	303524-03
Date Analyzed:	03/31/23	Data File:	303524-03.158
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.46
Barium	131
Cadmium	<1
Chromium	15.2
Copper	23.3
Lead	26.8
Mercury	<1
Nickel	11.1
Selenium	<1
Silver	<1
Zinc	554

Analysis For Total Metals By EPA Method 6020B

Client ID:	IP-COMP-230330	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	03/31/23	Lab ID:	303524-04
Date Analyzed:	03/31/23	Data File:	303524-04.159
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	42.9
Barium	132
Cadmium	<1
Chromium	12.9
Copper	18.4
Lead	12.3
Mercury	<1
Nickel	10.4
Selenium	<1
Silver	<1
Zinc	49.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	NA	Project:	1460-23002-01, F&BI 303524
Date Extracted:	03/31/23	Lab ID:	I3-250 mb
Date Analyzed:	03/31/23	Data File:	I3-250 mb.125
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

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

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	NA	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	I3-261 mb
Date Analyzed:	04/05/23	Data File:	I3-261 mb.038
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

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

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	DU-2 2023-230330-0.5-IS	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	303524-01 1/30 and 303524-01 1/600
Date Analyzed:	04/05/23 and 04/06/23	Data File:	040516.D and 040620.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	120	11	184
Decachlorobiphenyl	97	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	1.6
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	DU-3 2023-230330-0.5-IS	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	303524-02 1/30
Date Analyzed:	04/06/23	Data File:	040619.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	127	23	120
Decachlorobiphenyl	113	47	114

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.021
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UIC-COMP-230330	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	303524-03 1/30
Date Analyzed:	04/05/23	Data File:	040518.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	106	11	184
Decachlorobiphenyl	98	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	IP-COMP-230330	Client:	Evren Northwest
Date Received:	03/31/23	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	303524-04 1/30
Date Analyzed:	04/05/23	Data File:	040519.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	97	11	184
Decachlorobiphenyl	92	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	1460-23002-01, F&BI 303524
Date Extracted:	04/05/23	Lab ID:	03-865 mb 1/30
Date Analyzed:	04/05/23	Data File:	040504.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	108	11	184
Decachlorobiphenyl	116	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 04/12/23
Date Received: 03/31/23
Project: 1460-23002-01, F&BI 303524

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

Laboratory Code: 303528-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	2.31	105 b	110 b	75-125	5 b
Barium	mg/kg (ppm)	50	48.1	113 b	114 b	75-125	1 b
Cadmium	mg/kg (ppm)	10	<1	103	107	75-125	4
Chromium	mg/kg (ppm)	50	18.7	95 b	104 b	75-125	9 b
Copper	mg/kg (ppm)	50	13.9	86 b	91 b	75-125	6 b
Lead	mg/kg (ppm)	50	2.49	95	99	75-125	4
Mercury	mg/kg (ppm	5	<1	104	107	75-125	3
Nickel	mg/kg (ppm)	25	26.3	91 b	99 b	75-125	8 b
Selenium	mg/kg (ppm)	5	<1	89	95	75-125	7
Silver	mg/kg (ppm)	10	<1	96	100	75-125	4
Zinc	mg/kg (ppm)	50	25.2	94 b	97 b	75-125	3 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	108	80-120
Barium	mg/kg (ppm)	50	103	80-120
Cadmium	mg/kg (ppm)	10	102	80-120
Chromium	mg/kg (ppm)	50	107	80-120
Copper	mg/kg (ppm)	50	104	80-120
Lead	mg/kg (ppm)	50	104	80-120
Mercury	mg/kg (ppm)	5	110	80-120
Nickel	mg/kg (ppm)	25	105	80-120
Selenium	mg/kg (ppm)	5	96	80-120
Silver	mg/kg (ppm)	10	106	80-120
Zinc	mg/kg (ppm)	50	105	80-120

Date of Report: 04/12/23
Date Received: 03/31/23
Project: 1460-23002-01, F&BI 303524

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

Laboratory Code: 304035-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	1.20	93	91	75-125	2
Barium	mg/kg (ppm)	50	54.4	118 b	104 b	75-125	13 b
Cadmium	mg/kg (ppm)	10	<1	99	97	75-125	2
Chromium	mg/kg (ppm)	50	20.5	95 b	95 b	75-125	0 b
Copper	mg/kg (ppm)	50	14.2	90 b	89 b	75-125	1 b
Lead	mg/kg (ppm)	50	2.29	85	84	75-125	1
Mercury	mg/kg (ppm	5	<1	92	92	75-125	0
Nickel	mg/kg (ppm)	25	25.4	91 b	86 b	75-125	6 b
Selenium	mg/kg (ppm)	5	<1	85	87	75-125	2
Silver	mg/kg (ppm)	10	<1	87	88	75-125	1
Zinc	mg/kg (ppm)	50	27.0	90 b	90 b	75-125	0 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	97	80-120
Barium	mg/kg (ppm)	50	95	80-120
Cadmium	mg/kg (ppm)	10	99	80-120
Chromium	mg/kg (ppm)	50	105	80-120
Copper	mg/kg (ppm)	50	101	80-120
Lead	mg/kg (ppm)	50	98	80-120
Mercury	mg/kg (ppm)	5	101	80-120
Nickel	mg/kg (ppm)	25	102	80-120
Selenium	mg/kg (ppm)	5	94	80-120
Silver	mg/kg (ppm)	10	95	80-120
Zinc	mg/kg (ppm)	50	102	80-120

Date of Report: 04/12/23
Date Received: 03/31/23
Project: 1460-23002-01, F&BI 303524

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 303521-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	106	109 vo	44-107	3
Aroclor 1260	mg/kg (ppm)	0.25	<0.02	114	118	38-124	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	121	47-158
Aroclor 1260	mg/kg (ppm)	0.25	133	69-147

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

03/31/23 NI/ISM

303524

Page # 1 of 1

Report To Lynn Green

Company Evren Northwest

Address P.O. Box 14488

City, State, ZIP Portland OR 97293

Phone (503) 452-5561 Email lynng@evren-nw.com

SAMPLERS (signature) Jordan Morris	
PROJECT NAME 1460-23002-01	PO #
REMARKS Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 (Total)	Cu, Ni, Zn			Notes
DU-2 2023-230330-0.5-IS	01	03-30-23	13:45	Soil	1				X			X	X	X			
DU-3 2023-230330-0.5-IS	02	03-30-23	12:00	Soil	1				X			X	X	X			
UIC-Comp-230330	03 A-E	03-30-23	12:45	Soil	5				X			X	X	X			
IP-Comp-230330	04 ↓	03-30-23	13:05	Soil	5				X			X	X	X			
									Samples received at 2 °C								

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jordan Morris	Jordan Morris	Evren Northwest	03-30-23	18:00
Received by:	ANH PHAN	FSB	03/31/23	10:00
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Summary: DATA VALID? ☒YES

Analytical Laboratory Data Validation Check Sheet

Project Name: 5605-5621 NE 105th Ave - Portland Project Number: 1460-23002-01

Date of Review: 4/27/2023 Lab. Name: F&BI Lab Batch ID #: 303524

Chain of Custody

1.) Are all requested analyses reported?	☒yes	☐no	
2.) Were the requested methods used?	☒yes	☐no	
3.) Trip blank submitted?	☐yes	☒no	
4.) Field blank submitted?	☐yes	☒no	

Timing

5.) Samples extracted within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
6.) Analysis performed within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Quality Assurance/Quality Control

7.) Are the required reporting limits reported? (MRLs vs MDLs/PQLs)	☒yes	☐no	
8.) Are all reported values above either MRL or MDL?	☒yes	☐no	
9.) Are all values between the MDL & PQL tagged as trace?	☐yes	☐no	☒NA
10a.) Are reporting limits raised for other reason besides high analyte conc.?	☐yes	☒no	
10b.) If so, are they footnoted?	☐yes	☐no	☒NA
11.) Lab method blank completed?	☒yes	☐no	
12.) Lab, Field, or Trip Blank(s) report detections?	☐yes	☒no	

If yes, indicate blank type, chemical(s) and concentration(s): _____

13.) For inorganics and metals, is there one method blank for each analyte?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
14.) For VOCs, is there one method blank for each day of analysis?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
15.) For SVOC's, is there one method blank for each extraction batch?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	

Accuracy

16.) Is there a surrogate spike recovery for all VOC & SVOC samples?	☒yes	☐no	☐NA
Do all surrogate spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
17.) Is there a spike recovery for all Laboratory Control Samples?	☒yes	☐no	☐NA
Do all LCS/LCSD spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
18.) Are all LCS/LCSD RPDs within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Precision

19.) Are all matrix spike/matrix spike duplicate recoveries within acceptable limits?	☐yes	☒no	☐NA
If not, are all discrepancies footnoted?	☒yes	☐no	☐NA

The 8082A Aroclor 1016 matrix spike duplicate exceeded the acceptance criteria. The laboratory control sample passed the acceptance criteria; therefore, the results were due to matrix effect. (vo)

20.) Are all matrix spike/matrix spike duplicate RPDs within acceptable limits?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
21.) Do all RPD calculations for Field Duplicates meet accepted criteria?	☐yes	☐no	☒NA

Comments:

Several 6020B analytes were spiked at levels that were less than five times that present in the sample. All results were within range, but matrix spike recoveries may not be meaningful. (b)

Initial Review By: LMP **Final** Review By: EB