Contaminated Media Management Plan

Oregon DEQ ECSI Site 2424
3720 NW Yeon Avenue
Portland, Oregon 97210

Prepared for:
Conax Properties, Inc.
c/o Matthew LeMaster
Davis Wright Tremaine, LLP
1201 Third Avenue
Seattle, Washington 98101

February 2025
PBS Project 20125.011

PBS
AN APEX COMPANY
4412 S CORBETT AVENUE
PORTLAND, OR 97239
503.248.1939 MAIN
866.727.0140 FAX
PBSUSA.COM

Table of Contents

Supporting Data

APPENDICES

Appendix A: Figures

Appendix B: Recent Soil and Groundwater Analytical Results

1 INTRODUCTION

1.1 Purpose of Plan

PBS Engineering and Environmental LLC (PBS) has completed this Contaminated Media Management Plan (CMMP or Plan) to facilitate proper management of potentially impacted media at Environmental Cleanup Site Inventory (ECSI) Site 2424 (Site, Figure 1). While there are no planned activities within documented areas of residual contamination present at the site, this plan is intended to provide sufficient guidance for management of contaminated media during any future disturbance in this area such as excavation, utility trenching, or other activities that may result in direct contact with contaminated media. This Plan is to be read and adhered to by personnel performing soil excavation or other development activities where soil or groundwater may be encountered. Figure 2 identifies the documented extent of contamination where contaminated soil management and contaminated groundwater management are likely to be required.

1.2 Site Location

The subject property's address is 3720 NW Yeon Avenue in Portland, Oregon, located within Multnomah County in the northeast quarter (NE ¼) of the northwest quarter (NW ¼) of Section 29 of Township 1 North, Range 1 East of the Willamette Meridian (Tax Lot 200). A site vicinity map is included as Figure 1.

1.3 Site History

The Site was first developed and occupied by Willard Storage Battery Company in 1946, which operated at the property until 1958 when Great Western Chemical occupied the Site (1958 to 1971). The Site was then occupied by various manufacturing and storage companies. The Site has been used for storage and distribution of roofing, siding, and fencing supplies since 2010.

PBS recommended in 2010 that the site be entered into the State of Oregon Department of Environmental Quality's (DEQ's) Voluntary Cleanup Program (VCP) to obtain guidance and oversight with regard to further work at the site (assessment, remediation, and monitoring).[1] The site was subsequently assigned ECSI file number 2424.

The site is additionally part of the Portland Harbor Superfund, which was designated as a superfund site by the Environmental Protection Agency (EPA) in 2000. Numerous historical investigations have been conducted at the site. These reports were previously submitted to DEQ and are not summarized here.

1.4 Site Geology and Hydrogeologic Conditions

The subject property is in the historical Guild's Lake area. This area was an intermittent lake and marsh until extensive filling and grading occurred in preparation for the 1905 Lewis and Clark Exposition, which was constructed on the lake and grounds south and southeast of the lake. Additional filling and grading occurred through the 1940s to create land for industrial use. Underlying the site is an undetermined amount of fill with possible subordinate amounts of gravel.

Underlying fill at a depth of 20 to 30 feet are fine-grained to sand-sized periglacial deposits from the glacial outburst floods of Glacial Lake Missoula. Beneath the flood deposits are poorly consolidated sands and gravelly sands of the Troutdale Formation. Underlying the Troutdale Formation are approximately 200 feet of siltstone, sandstone, and mudstone of the Sandy River Mudstone. Basalt lava flows of the Columbia River Basalt Group are at depth.

[1] PBS (PBS Engineering and Environmental Inc.). (2010). *Subsurface Remedial Investigation Report*

The shallowest occurrence of groundwater is expected to be at approximately 5 to 10 feet below ground surface (bgs). Groundwater flow direction at the site indicated a relatively consistent southeastern direction over the course of eight groundwater monitoring events (completed in 2014 and 2015). Of the eight monitoring events, five included off-site wells at the south-adjacent property. The limited monitoring data suggests flow to the south at a relatively flat hydraulic gradient (relative water level differences ranged from 0.08 to 0.40 feet higher on the subject property). Based on a review of DEQ cleanup files from adjoining and nearby properties, the direction of shallow unconfined groundwater flow in the Guild Lake formation is variable.

Topography suggests relatively flat gradients across this large level area of historical fill at the base of Willamette Heights, so shallow groundwater flow direction varies based on location. Deeper groundwater is expected to flow to the north/northeast toward the Willamette River.

1.5 Key Personnel

Key personnel for the project are identified in the following table.

Table 1. Key Personnel

Company	Name and Title	Contact Information
Property Owner Convoy Supply	Hussain Kheatani Operations Manager	Office: 503.881.4969 Cell: 604.512.7803
Construction Manager TBD	TBD	TBD
General Contractor (GC) TBD	TBD	TBD
DEQ Project Manager (DEQ PM)	Kevin Dana	Office: 503.229.5369 Kevin.Dana@deq.oregon.gov
Environmental Consultant (EC) PBS Engineering and Environmental LLC	Nick Thornton Senior Project Manager	Office: 503.417.7610 Cell: 610.731.3359

2 PREVIOUSLY IDENTIFIED ENVIRONMENTAL CONDITIONS

2.1 Residual Lead Contamination

In September 1997, soil assessment at the site completed by CH2M Hill identified elevated concentrations of lead in shallow soils located on the eastern side of the site resulting from historical battery manufacturing operations that were determined to potentially pose a risk to human health and the environment. Additional soil samples were collected in October 1997 along the path of a rail spur and from an unpaved portion of the southeast corner of the site to further evaluate lead concentrations in these areas. Soil samples were collected from depths of approximately 6 to 18 inches bgs from a railroad track spur in an unpaved area located near the site's eastern boundary and southeastern corner. The soil samples contained levels of lead at concentrations up to 94,000 mg/kg. Review of historical building permits, dating back to the battery manufacturing operations, indicate that the source of lead in soil was likely related to discharge from a neutralizer tank to a ditch bounding the west side of the rail spur. Sampling indicated that elevated lead in soil generally extended north along the eastern property boundary, approximately 150 feet north of the southeast corner of the warehouse building and in line with the historical neutralizer tank.

295 tons of lead contaminated soil was excavated from the former spur area and southeast corner of the site to depths ranging from 1 to 3 feet bgs. At the time, the remedial excavation was guided by the maximum allowable soil concentration value of 2,000 mg/kg lead from DEQ's soil cleanup table (OAR 340-122-045). At the conclusion of soil removal activities, 37 confirmation soil samples were collected indicating that remaining soils contained lead concentrations ranging from 54.6 mg/kg to 3,890 mg/kg. CH2M Hill indicated that the average lead concentration from soil cleanup confirmation samples was approximately 660 mg/kg. An upper 95th percentile upper confidence level (UCL) estimate of the mean concentration was approximately 910 mg/kg.

Although the soil excavation was sufficient to meet regulatory criteria in place at the time, several of the confirmation soil samples exceeded current DEQ risk-based criteria (RBC) for lead related to ingestion, inhalation, and dermal contact for occupational, construction worker, and excavation worker receptors.

PBS completed additional analysis for lead risk in their July 2016 Feasibility Study Report at the site using the 1997 data along with additional soil sample data collected in 2010. The data was evaluated using EPA's ProUCL software to calculate a 95th percentile UCL of the mean concentration of 629.3 mg/kg. This concentration is below RBC for direct contact for construction and excavation workers of 800 mg/kg.

2.2 Chlorinated Solvents

Prior to 2020, the most recent historical investigation activities were in 2016. Therefore, in August 2020, following comments by EPA indicating an effort to reduce contaminant mass was necessary, PBS conducted an investigation to evaluate current conditions and identify areas where targeted injections would be most beneficial. The investigation consisted of sampling four on-site monitoring wells (MW-1 through MW-4) and conducting a subsurface contaminant characterization using a Membrane Interface Probe equipped with a Hydraulic Profiling Tool (MiHPT). The investigation focused on the known source area in the southeastern portion of the property where a former tetrachloroethene (PCE) aboveground tank was present, as well as areas to the west and northwest where a secondary source was suspected. Results confirmed elevated solvent concentrations in the primary and secondary source area in saturated zones at varying depths below the water table. PBS installed five additional monitoring wells (MW-5 through MW-9) in 2021 that confirmed the presence of a deeper zone of contamination in the southwestern portion of the site.

During the installation of monitoring wells MW-5 through MW-9, soil samples were collected from each well location as well as additional borings (B-33 through B-35) at depths representative of the most impacted soil, which occurred at depths of 20 feet bgs or deeper. Halogenated volatile organic compounds (VOCs) including PCE and its breakdown products trichloroethene (TCE), cis-1,2 dichloroethene (cis-1,2-DCE), 1,1 dichloroethene (1,1-DCE), and vinyl chloride were detected in all soil samples except for the sample collected from boring B-33. Vinyl chloride detections in soil samples collected from boring B-35 and monitoring wells MW-5 through MW-7 exceeded the Ingestion, Dermal Contact & Inhalation Risk-Based Concentration (RBC) protective of occupational receptors.

In 2022, PBS completed 53 gridded injections into the subsurface of the site. The injections were composed of three remedial compounds designed to dechlorinate and degrade halogenated VOCs. Post-treatment performance groundwater monitoring results indicated that significant dechlorination of the primary halogenated solvents PCE and TCE has occurred. Cumulative PCE and TCE concentrations across the monitoring well network decreased 37.6% and 68.2%, respectively, based on a comparison of sampling data from the May 2022 pre-injection groundwater monitoring event and the final post-treatment (Quarter 4) monitoring event. Excluding monitoring well MW-8, PCE and TCE concentrations reduced 98.4% and 91.9%,

respectively. Reduction of halogenated solvents in MW-8 was expected to be slower due to the lower mobility of the remedial chemicals and MW-8's location outside of the gridded treatment area.

An increase of several compounds associated with the degradation of TCE and PCE occurred following the injections. Breakdown compounds commonly associated with TCE and PCE were detected, including cis-1,2-DCE and vinyl chloride with secondary breakdown compounds of 1,2-trans dichloroethene (trans-1,2-DCE) and 1,1-DCE. Monitoring wells MW-3, MW-5, MW-6, MW-7, and MW-9 indicated concentrations of one or more breakdown compound that exceeded DEQ risk screening criteria during the final monitoring event. The increased detections are indicative that dechlorination is occurring. Over time, the remedial compounds are anticipated to further degrade and reduce the concentrations of breakdown compounds into harmless by-products, resulting in a complete dechlorination process.

During the most recent groundwater monitoring event (May 2023), breakdown compounds in monitoring wells MW-3 and MW-5 through MW-9 exceeded the Vapor Intrusion into Buildings RBC protective of occupational receptors. Monitoring well MW-6 detected the highest concentrations of both vinyl chloride and cis-1,2-DCE.

To date, measurable dense non-aqueous phase liquid (DNAPL) or light non-aqueous phase liquid (LNAPL) has not been encountered in monitoring wells or borings onsite. Tables presenting results for all site samples (Table 1 through Table 3) are provided as attachments in Appendix C. Because significant chemical transformation from the 2022 remedial injections continues to occur, historical analytical data should not be utilized for waste profiling and instead new characterization soil and groundwater samples should be collected and relied upon for profiling.

2.3 Risk Summary

Maximum concentrations of COPCs are not outlined in this Plan. Those concentrations should not be considered representative of current Site conditions due to the significant groundwater remediation that has occurred. Recent groundwater and soil analytical data are summarized in Table 1 and Table 2 (Appendix B). The contaminants of potential concern (COPCs) in soil and shallow groundwater for the Site include all of those mentioned in the previous section but primarily focus on halogenated VOC compounds and lead.

3 HEALTH AND SAFETY INFORMATION

The party in charge of the Site activities shall prepare and implement a health and safety plan (HASP) in accordance with Occupational Safety and Health Act (OSHA) requirements (i.e. CFR 1910.120) and OARs. The HASP shall identify and address, but not be limited to, the physical and chemical hazards of the Site and the proposed activities. The HASP content shall, at a minimum, describe the following:

- Required personal protective equipment (PPE);
- Site safety supervisor;
- Action levels at which protection would be upgraded;
- Controls to be used to minimize worker exposure to hazardous substances;
- Exclusion, contamination reduction, and clean zones;
- Personnel decontamination procedures;
- Route to hospital; and
- Monitoring equipment to be employed.

Data tables from soil and groundwater investigations are included in Appendix B. The tables provide a guideline for the magnitudes of chemicals encountered in the management areas. If future remedial actions are completed within the LOF, these data will be obsolete, and subsequent sampling would need to be conducted to inform future health and safety assessments.

4 AREAS REQUIRING MANAGEMENT

The locality of facility (LOF) is defined by DEQ as the area where human receptors (i.e., construction workers and site employees) are reasonably likely to come in contact with hazardous substances. For on-site residual chlorinated solvent impacts to soil and groundwater, the LOF has been defined as being bounded by monitoring well MW-2 to the north, MW-4 to the east, and the southern and western property boundaries. The LOF is illustrated in Figure 2. Any subsurface work or soil-intrusive activity that is planned within the LOF boundary shall be conducted in the manner outlined in this Plan. Any soil or groundwater encountered within the area of the LOF should be assumed to be contaminated in the absence of relevant analytical testing data.

Residual elevated concentrations of lead present along the eastern property boundary will additionally requirement management, should earthwork activities occur at this location.

5 SOIL MANAGEMENT

This CMMP addresses evaluating and handling contaminated soil that may be encountered during future site development activities in a manner that protects the environment and ensures proper off-site disposal of impacted media.

As discussed in Section 4, soil contamination may be encountered during soil-disturbing activities completed within the LOF. If suspect contaminated soil, groundwater, containers, or other unusual findings not previously characterized are encountered during earthwork, the EC shall be immediately notified to perform a field inspection, screening, and appropriate sampling to determine proper disposition of the materials. Based on the type and concentrations of contamination, contaminated soil removal may need to be handled in accordance with Oregon Administrative Rule (OAR) 340-093-0040, or as hazardous waste in accordance with the Resource Conservation and Recovery Act (RCRA). Contaminated soil must be transported to a DEQ landfill authorized to accept the material.

5.1 Field Screening for Contaminated Media

Petroleum-contaminated soil (PCS), if present, may exhibit gray or blue discoloration, a characteristic odor, and/or may have a petroleum sheen when moist. Solvent-contaminated soil may exhibit a sweet, ether-like odor. Soil solely contaminated with heavy metals may not exhibit signs of contamination but building materials such as brick or painted scrap metal are common indicators that elevated concentrations of metals may be present. Screening is the responsibility of all individuals completing work activities. Workers should be instructed to continuously screen during work activities.

The following continuous field screening methods will be used by the general contractor (GC) and its subcontractors to assess the potential for disturbed soils to be impacted:

- Visual observation for indications of stained soil, buried objects, or other human-made products
- Olfactory observation for unusual odors emanating from recently exposed soils

Additional field screening of soil following excavation can be conducted using the following methods:

- A PID to screen soils for VOCs
- A sheen test to evaluate soils for the presence of petroleum hydrocarbons

If field screening methods identify potentially contaminated soil, site activities around suspect soil should be halted to allow an environmental professional to determine the nature of contamination.

Buried objects such as drums, septic tanks, drywells, and underground storage tanks (USTs) may be encountered during construction activities. If an unexpected object is encountered, proper decommissioning and disposal required by DEQ must be followed. An environmental professional may be contacted to conduct the screening, if needed.

5.2 Soil Handling Procedures

Site monitoring is the responsibility of all workers participating in soil-intrusive activities. The following procedures are recommended for such activities. This section assumes that the material can be managed as nonhazardous waste. If this is not the case, this section must be revised to include additional soil handling protocols.

- The GC will determine appropriate disposal facilities for soil media known or assumed to be contaminated. Nonhazardous contaminated material shall be disposed at a licensed Subtitle D facility, such as Hillsboro Landfill.
- The area shall be secured for safety, to control sediment and surface water runoff, and to minimize entry or collection of water in excavations. Appropriate construction best management practices (BMPs) should be used including, but not limited to, the use of silt fences and appropriate site grading and sloping.
- Contaminated areas shall be excavated in a manner that prevents commingling of contaminated and uncontaminated soil. Soil excavated on site should be treated as contaminated until proven otherwise.
- Any stockpiled contaminated soil stored on site shall be placed on plastic sheeting, covered with plastic sheeting weighed down with sandbags, and encircled with straw wattles for stormwater protection.
- If contaminated soil is directly loaded into trucks and transported directly to a disposal site, the GC shall ensure that a valid permit has been obtained from that disposal facility prior to direct loading. The trucks will contain adequate tarping to prevent contaminated soil dispersion during transportation.
- Contaminated soil shall be loaded into trucks or approved containers in a manner that prevents spilling or tracking the soil into uncontaminated areas.
- The GC shall construct a temporary decontamination area, if necessary, for cleaning excavation equipment used to handle contaminated media.
- Loose material on trucks shall be swept off or otherwise removed before the trucks leave the loading area. Contaminated material collected in the loading areas shall be placed into the trucks or back into the excavation for future loading.
- Paved surfaces shall be swept at the conclusion of each day's loading activities. The sweepings shall be placed back in the impacted soil area for removal during the next round of truck loading.

Additionally, if unanticipated contaminated media is encountered, the EC should be contacted to assist in the screening, characterizing, handling, and disposing of the material.

5.3 Soil Sampling Procedures

Contaminated soil will require additional sampling and laboratory analysis prior to off-site disposal to a disposal facility. The GC will coordinate with the EC to ensure additional soil characterization is managed properly.

5.3.1 Sample Collection and Handling

Supplemental samples shall be collected in accordance with the following guidelines:

- The sampler shall wear a clean pair of disposable nitrile gloves each time a new sample is collected.
- Composite soil samples of contaminated soil (100 cubic yards or less) shall consist of four representative subsamples homogenized and then placed into clean containers provided by the laboratory.
- It is likely that hand tools (trowel, shovel) or a backhoe bucket shall be used to obtain representative soil sample material. Hand tools shall be decontaminated with a detergent and water rinse prior to each use between composite samples. Sampling from a backhoe bucket shall entail scraping a clean surface before collecting the sample using hand tools and collecting the sample away from the sides of the bucket.
- Custody procedures shall ensure that accurate and complete records of sample collection, transfer between personnel, shipment, and receiving by the laboratory are generated and retained.

5.3.2 Sample Identification

At the time of collection, a unique identification number shall be assigned to all composite samples and a complete label attached to each sample container. All sample identification numbers and depths shall be keyed to the sample location and type and recorded in a field notebook. Each sample for the life of the project must have a unique sample name.

Sample labels shall be completed and attached to the jars in the field to prevent misidentification. All sample labels shall include the following information:

- Project name or number
- Sample identification
- Sample collection date and time

The sample identification is unique to a particular sample and the format must be consistently used for all samples collected at the site. The sample identification typically includes the sample location and the collection depth. The sample location is the soil boring or stockpile number or otherwise designated sample location. Standard abbreviations for sample location types are:

- Date (YEARMMDD)-LOCATION (Contaminated Stockpile [CSP])-Number)
- Example: 20230925-CSP-1

5.3.3 Laboratory Analysis

Based on historic site operations and soil COPCs, the following laboratory analyses may be performed for disposal characterization if unanticipated contaminated soil is encountered:

- Gasoline-range hydrocarbons by Northwest Method Total Petroleum Hydrocarbons, gasoline extended (NWTPH-Gx)
- Diesel- and oil-range hydrocarbons by Northwest Method Total Petroleum Hydrocarbons diesel extended (NWTPH-Dx)
- VOCs by EPA Method 8260
- Total lead by EPA Method 6020

The following additional analyses typically requested by disposal facilities may additionally be required:

- RCRA 8 Metals by EPA Series 6000 and 7000
- Toxic Characteristic Leaching Procedure Metals by EPA 6020B (ICPMS)

Analytical results shall be provided to the receiving facility for acceptance of the material.

The receiving facility may require additional analysis prior to accepting soil for disposal. The GC is responsible for coordinating with EC and the disposal facility regarding additional analytical requirements.

5.3.4 Sample Delivery and Schedule

Supplemental samples shall be stored on ice in a cooler. EC shall coordinate with an Oregon-certified laboratory to minimize sample transport and holding time to ensure that all shipments are received by laboratory personnel within an appropriate timeframe suitable for the analysis requested.

5.3.5 Sample Custody

The chain-of-custody (COC) protocol establishes that each sample or group of samples, the possessor of the samples, and the date and time of possession be documented, beginning with sample collection and ending with sample disposal. Under no circumstance is there to be a break in this COC. A COC form shall be completed for each sample or sample group submitted to the laboratory and shall remain with samples until receipt by the laboratory.

5.3.6 Sample Containers and Coolers

The laboratory shall provide containers for sampling. Individuals responsible for sampling shall inspect all containers and coolers prior to use. Sample containers shall be kept away from fuels and solvents. Container type and volume, preservation, and holding time requirements for each sample analysis shall be in accordance with analytical method requirements.

5.4 Transportation and Disposal of Contaminated Soil

Contaminated soil that cannot be reused on site must be tested to meet requirements for disposal at a Subtitle D landfill. If testing confirms that soil is an RCRA (hazardous) waste requiring disposal at a Subtitle C landfill, this section must be revised. Existing data from historic site sampling activities may be sufficient for initial permitting of contaminated soil, with the suitability of this data determined by the receiving facility. The results of the additional testing shall need to be reviewed by the receiving facility to determine if the waste can be accepted.

The GC and its subcontractors shall comply with all applicable federal, state, and local laws, codes, and ordinances that govern or regulate contaminated soil transportation. Prior to transportation, the GC will ensure that all required permits are obtained. Drivers hauling contaminated soil should have in their possession all applicable state and local vehicle insurance requirements, valid driver's license, copies of waste disposal permit(s), and vehicle registration. Drivers of haul vehicles shall be informed of the following:

- The nature of the material being hauled
- The required route to and from disposal site(s)
- The applicable city street regulations and requirements and Oregon Department of Transportation codes, regulations, and requirements
- The legal maximum load limits per vehicle

Trucks shall not be allowed off site if free liquids (including water) are draining from the load. It may be necessary to line trucks or require dewatering of soil before transporting off site. Trucks used for the transportation of contaminated soil must be substance compatible, licensed, insured against spill accidents, and permitted pursuant to federal, state, and local statutes, rules, regulations, and ordinances. Weigh tickets from any local scale and disposal facility should be retained by the GC and provided to the EC and the owner for future reporting.

All trucks transporting impacted soil for off-site disposal at approved facilities will be directly loaded to reduce additional handling of contaminated soil. All trucks transporting impacted soil are recommended to have a dump truck tarp to reduce the potential for contaminated soil from escaping the truck during transportation.

6 MANAGEMENT OF SHALLOW GROUNDWATER AND STORMWATER

Due to the shallow depth of groundwater and relatively large lateral extent of known dissolved impacts, it is reasonably likely that workers may come in contact with and have to manage impacted groundwater during excavation work. If excavation dewatering is required, characterization of the dewatering fluid prior to discharge is required. Dewatering fluid is anticipated to be containerized, sampled for waste classification, and disposed of off-site at an approved facility. Discharge of dewatering fluid to a municipal sanitary system is currently not proposed. However, if discharge of dewatering fluid to a municipal sanitary sewer is required in the future, the governing municipality or disposal agent will require permitting, treatment, and characterization of the water prior to discharge. The analyses required shall be determined by the governing municipal agency or disposal agent during the permitting process.

If shallow groundwater or stormwater are encountered within an excavation and dewatering activities are required, the following shall be conducted:

- *Contain and Analyze*. Water shall be pumped into an appropriate container (temporary tank) and samples collected following de-sedimentation treatment. The samples shall be analyzed to confirm that the water meets applicable construction National Pollutant Discharge Elimination System (NPDES) permit requirements. The sediments resulting from the de-sedimentation treatment may be contaminated and may require proper disposal at an approved off-site facility.
- *Halt Work*. If significant contaminant indicators are observed in water in an area where contaminants were not previously found and characterized, Site work shall be halted while analytical testing is conducted to determine options for treatment, disposal, and health and safety requirements. Such indicators could include the presence of free phase liquids, odors, or extreme discoloration of groundwater not associated with naturally occurring organics.
- *Disposal*. Water confirmed as contaminated through sampling and analysis must be disposed of in accordance with applicable regulations. Options for disposal include contacting a vendor to collect the water and transport it to a licensed disposal or recycling facility; obtaining a NPDES permit from DEQ to allow discharge to the storm sewer; or obtaining a permit from the local municipality to allow discharge to the municipal sanitary sewer. If collected water does not contain contaminants at

concentrations above applicable construction NPDES permit values, allowable discharge to the municipal storm drainage ditch or other appropriate disposal procedure should be pursued, which may require pretreatment prior to disposal.

If construction activities disturb 1 or more acres, and discharge to surface waters or conveyance systems leading to surface waters of the state occur, the legally authorized representative for construction activities must register for coverage under an NPDES 1200-C General Stormwater Discharge Permit (1200-C Permit). Construction activities include grading, excavation, materials or equipment staging, and stockpiling. Applicants must submit complete applications to DEQ at least 30 calendar days before commencing any land disturbance activities, unless otherwise approved by DEQ. It is the GC's responsibility to ensure that proper permitting occurs.

In some jurisdictions, construction activities that disturb less than 1 acre are automatically covered under the 1200-CN Permit. It is the GC's responsibility to ensure that proper permitting occurs. While an application to DEQ and permit fees are not required to obtain coverage under the 1200-CN Permit, owners and operators of automatically covered construction activities must comply with performance requirements and other terms of the 1200-CN Permit.

Runoff from construction activities must be controlled. Construction-related runoff may include sediment, suspended solids, colloidal suspensions, and site contaminants in soil or water. Sediment and suspended solids can readily be controlled and minimized using standard BMPs. If maintenance of the BMPs is lacking, or if care is not used when removing these BMPs after the site is finished with construction, then any retained pollutants may still be released into the environment. It will be up to the professional judgment of the GC to choose and implement effective BMPs for the Site to control runoff.

7 EQUIPMENT DECONTAMINATION

A temporary decontamination pad will be established for decontamination of site equipment that comes into direct contact with contaminated soil.

- At a minimum, the decontamination pad should have the ability to collect decontamination liquids such as a visqueen barrier with bermed edges to allow collection of liquid and solids.
- This equipment shall be power washed on the temporary decontamination pad prior to demobilization.
- Trucks used to haul contaminated soil for off-site disposal will be kept on clean rock or other uncontaminated surfaces. The decontamination of this equipment shall consist of sweeping away loose soil and removal of significant quantities of adhered soil with hand tools. Trucks shall be broom-cleaned before leaving the loading area. Trucks transporting contaminated soil should be lined with visqueen or sufficiently decontaminated following use at the site prior to transporting clean soil or work at a different site.

8 FUGITIVE DUST AND DUST CONTROL

With the Site situated in a densely populated industrial neighborhood, dust control measures should be prepared and implemented. Proper dust control measures, such as watering access roads during truck movement and loading, (particularly on hot, dry, and windy days), should be protective of workers and adjoining properties. If additional screening or analytical testing indicates elevated metals, the EC may recommend perimeter dust monitoring as a precautionary measure.

9 UST MANAGEMENT

If activities confirm the presence of a previously unidentified UST, a licensed tank decommissioning contractor must be engaged to ensure proper decommissioning of the UST(s). Characterization and disposal of any contaminated media encountered around the UST(s) during decommissioning shall be managed by the tank decommissioning contractor.

10 PROJECT PROTOCOLS

10.1 Compliance with Applicable Environmental Laws and Regulations

The GC and its subcontractors shall comply with all applicable state and federal environmental laws. In addition, the Site owner shall ensure that on-site workers have been trained on the contents of this Plan. Management and handling of contaminated media shall be conducted in accordance with Oregon Revised Statutes (ORS), Chapter 459, Solid Waste Management (ORS 459.005 through 459.997).

10.2 Recordkeeping

Disposal tickets for impacted soil must be maintained by the disposal contractor and provided to the owner promptly upon receipt from the receiving facility.

10.3 Unforeseen Conditions

If USTs, buried drums, or other unforeseen conditions that could pose an environmental concern are encountered at the Site, the GC should immediately notify the owner and the EC for further direction.

10.4 Contractor's Use of Hazardous Materials

The GC and its subcontractors shall properly handle, store, use, and dispose of hazardous materials brought onto the Site in accordance with all applicable environmental laws. In the event of a spill or release of hazardous material brought onto the Site, the procedures as set forth in its corporate safety program or other management plan concerning hazardous materials encountered during construction shall be followed.

11 ASSUMPTIONS AND LIMITATIONS

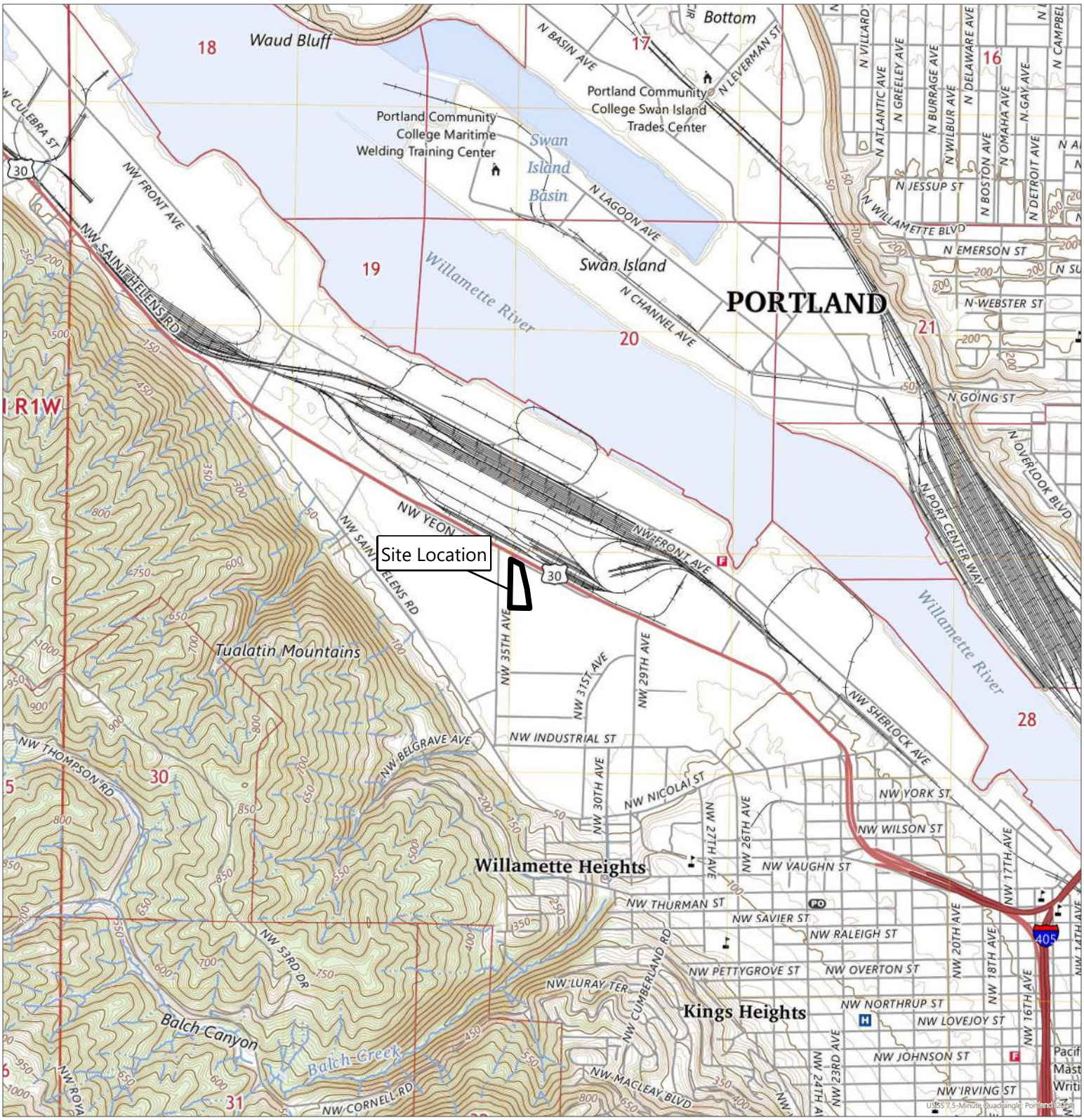
PBS has prepared this Plan for use by Conax Properties, Inc. and its contractors during soil-intrusive activities at the Site relying on information known and available at the time the Plan was developed. If new information is determined prior to or during the construction period, the Plan should be updated to reflect that information.

This CMMP provides the project team with guidance for the appropriate handling and management of potentially contaminated media and is intended to be used as a general overview document for contractors and the project team during the earthwork portions of the project. Contractors are required to comply with applicable rules and regulations when handling contaminated media regardless of whether it is addressed in this CMMP.

The general contractor is responsible for notifying subcontractors of pertinent environmental conditions. Each contractor and subcontractor is responsible for the safety of their employees, including compliance with applicable OSHA regulations and compliance with all specifications in the technical specifications manual for the project.

Appendix A

Figures



Site Vicinity

3720 NW Yeon Avenue, Portland, Oregon

Date: February 2025 | Project: 20125.011

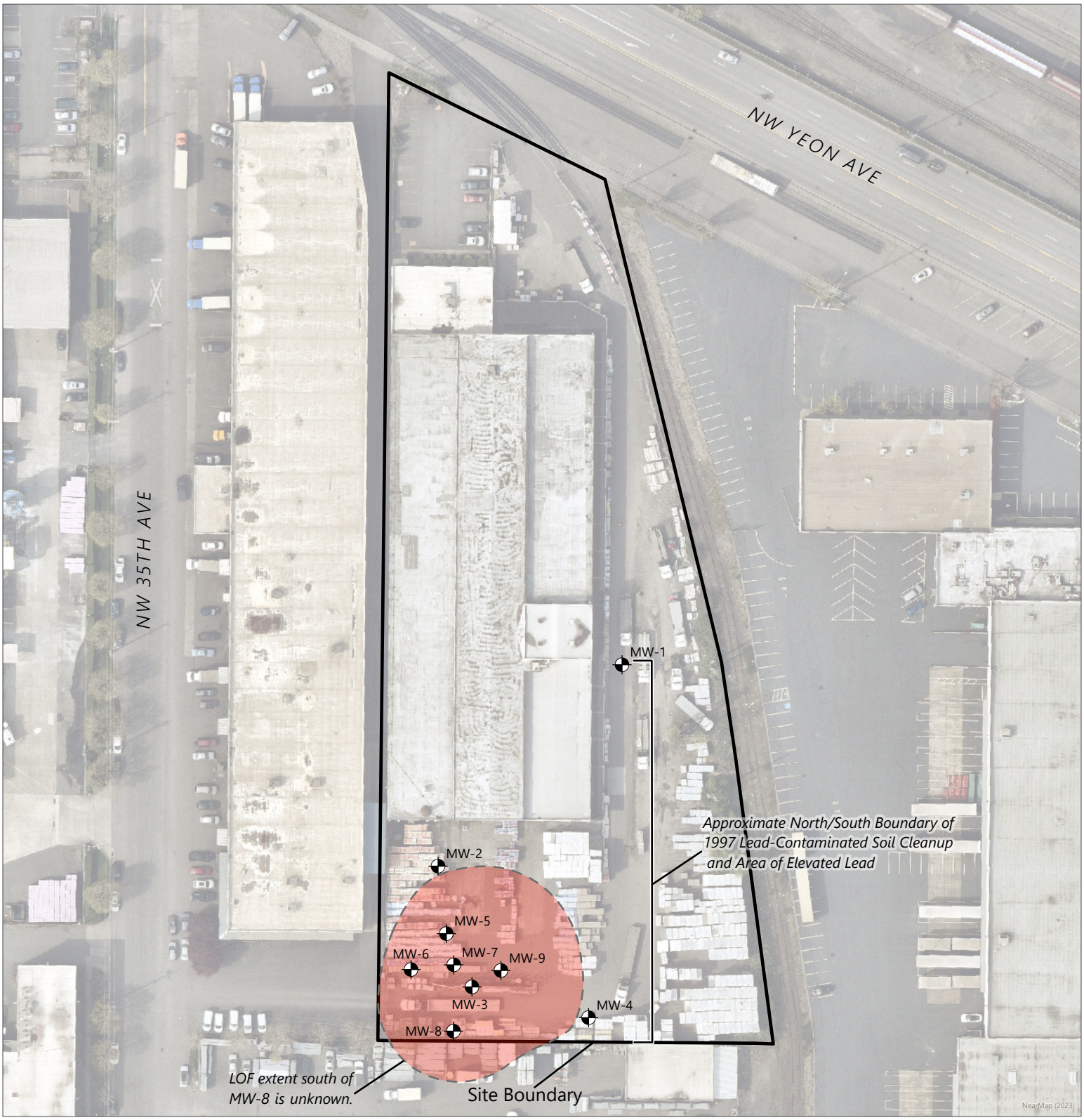
Figure: 1

Site Boundary

1 INCH = 2,000 FEET

0 2,000 Feet

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Site Plan

3720 NW Yeon Avenue, Portland, Oregon

Date: February 2025 | Project: 20125.011

Figure: 2

Monitoring Well

Location of Facility (LOF)

Extent of Locality of Facility (LOF)

Site Boundary

N

1 INCH = 100 FEET

0 100 Feet

PBS

NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl | L:\Projects\20000\20100-20199\20125 NWYeon\20125.011 Remedial Injection and Monitoring\GIS\June 2023\20125.011_NW_Yeon\20125.011_NW_Yeon.aprx | 2/11/2025 4:29 PM

Appendix B

Recent Soil and Groundwater Data Tables

Table 1. Soil Analytical Results

3720 NW Yeon Avenue
Portland, Oregon

			Volatile Organic Compounds (detections only)										Total Petroleum Hydrocarbons		
Sample ID	**Sample Date**	**Sample Depth**	Benzene	Carbon Disulfide	Carbon Tetrachloride	1,1-Dichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Tetrachloroethene	Toluene	Trichloroethene	Vinyl Chloride	Diesel	Heavy Oil	Gasoline
		feet bgs	**mg/kg**												
MW8-20	06/23/2021	20.0	<0.0704	<0.0704	<0.0704	<0.0704	<0.0704	<0.0704	<0.0704	0.734	<0.0704	**0.0721**	88.9	166	<7.04
B35-21	06/23/2021	21.0	<0.00131	<0.00131	<0.00131	0.00665	**6.25**	0.0346	0.342	<0.00655	**1.21**	**4.53**	<5.24	<13.1	7.61
MW7-21	06/23/2021	21.0	0.00443	0.0026	<0.00159	0.0155	**312**	0.188	**17.7**	0.032	**15.2**	**23.2**	41.0	66.6	195
MW5-21	06/23/2021	21.0	0.00217	0.00215	<0.00146	0.0275	**139**	0.219	**20.3**	0.00755	**8.39**	**8.77**	36.0	57.6	94.1
MW6-21	06/24/2021	21.0	0.00318	0.00152	<0.00109	0.00294	**57.6**	0.112	0.00632	0.00714	0.00207	**25.7**	25.3	38.8	9.95
B33-21	06/24/2021	21.0	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00677	<0.00135	<0.00135	8.90	15.7	0.177
B34-23	06/24/2021	23.0	<3.49	<3.49	<3.49	<3.49	**13.3**	<3.49	**237**	<17.4	**19.9**	<3.49	<5.36	<13.4	114
B34-29	06/24/2021	29.0	<0.00147	<0.00147	<0.00147	<0.00147	0.11	<0.00147	**4.54**	<0.00737	**0.124**	**0.0571**	<5.90	<14.7	0.748
Oregon DEQ RBC[1] - Ingestion, Dermal Contact, & Inhalation			37	NS	34	29,000	2,300	23,000	1,000	88,000	51	**4.4**	14,000	>Max	>Max
Oregon DEQ RBC[1] - Volatilization to Outdoor Air			50	NS	65	>Csat	>Max	>Max	>Csat	>Csat	96	89	>Max	>Max	>Max
Oregon DEQ RBC[1] - Vapor Intrusion into Buildings			2.1	NS	1.6	680	>Max	>Max	**36**	>Csat	**2.3**	**2.2**	>Max	>Max	>Max
Oregon DEQ RBC[1] - Leaching to Groundwater			0.10	NS	0.058	32	**4.5**	51	**1.9**	490	**0.087**	**0.010**	>Max	>Max	>Max

Only detected compounds reported, see laboratory report for

[1]Oregon Risk-Based Decision-Making for the Remediation of Petroleum-Contaminated Sites, Oregon DEQ Sept. 2003, Revised RBCs May 2018.
Risk-Based Concentrations (RBCs) June 7, 2012.

Bold text indicates an exceedance of one or more of the cleanup levels (cleanup levels exceeded are bolded as well)

bgs: below ground surface

mg/kg: milligrams per kilogram

NS: No standard set for this compound

>Csat: Soil RBC exceeds the limit of three phase equilibrium partitioning.

>Max: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.

Table 2. Groundwater Analytical Results
3720 NW Yeon Avenue
Portland, Oregon

			Volatile Organic Compounds																		Total Petroleum Hydrocarbons		
Sample ID	Sample Date	Well Screen Interval (feet bgs)	Benzene	SEC-Butylbenzene	Chloroethane	Ethylbenzene	Isopropylbenzene	1,1-Dichloroethene	cis-1,2 Dichloroethene	2-Hexanone (MBK)	n-Propylbenzene	trans-1,2 Dichloroethene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	1,2,4-Trimethylbenzene	1,2,3-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes	1,4-Dioxane	Gasoline	Diesel	Heavy Oil
			ug/L																					
MW-1	10/07/11	5-15	<0.250	<1.00	*	<0.500	<1.00	<0.500	1.32	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/13/11		<0.250	<1.00	*	<0.500	<1.00	<0.500	0.750	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	03/07/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	0.840	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	06/25/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	0.680	*	*	<0.500	0.65	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	10/03/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	2.56	*	*	<0.500	<0.5	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/28/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	0.930	*	*	<0.500	0.68	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	09/30/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	09/30/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	4.00	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	1.040	<0.500	--	--	--	--
	12/19/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	1.83	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.510	<0.500	--	--	--	--
	03/26/15		<0.250	<1.00	*	<0.500	<1.00	<0.500	1.15	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	07/07/20		<0.20	<1.00	*	<0.500	<1.00	<0.500	2.14	*	*	<0.40	<0.40	<1.00	<0.40	<1.00	--	<1.00	2.39	<1.00	--	--	--	--
	07/01/21		<1.00	<1.00	*	<1.00	<1.00	<1.00	<1.00	*	*	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.79	<1.00	--	--	--	--
	10/18/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	0.787	*	*	<0.500	<0.400	<0.750	<0.500	<0.500	--	<0.250	4.04	<0.500	--	--	--	--
	01/16/23		<0.440	<0.500	*	<0.400	<0.500	<0.500	<0.500	*	*	<0.350	<0.350	<1.00	<0.400	<0.500	--	<0.500	2.63	<0.500	--	--	--	--
	05/04/23		<0.440	<0.500	<1.00	<0.400	<0.500	<0.500	0.532	<1.25	<0.500	<0.350	<0.350	<1.00	<0.400	<0.500	--	<0.500	1.33	<0.500	--	--	--	--
MW-2	10/07/11	5-15	<0.250	<1.00	*	<0.5	<1.00	<0.500	<1.00	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/13/11		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	03/07/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	06/25/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	0.890	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	0.800	<0.500	--	--	--	--
	10/03/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.800[T]	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/28/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	09/30/14		<2.50	<10.0	*	<5.00	<10.0	<5.00	1,240	*	*	8.00	2,940	<10.0	935	<10.0	--	<10.0	16.0	<5.00	--	--	--	--
	09/30/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/19/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	03/26/15		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	07/07/20		<0.20	<1.00	*	<0.500	<1.00	<0.500	<0.40	*	*	<0.400	<0.400	<1.00	<0.400	<1.00	--	<1.00	<0.400	<1.00	--	--	--	--
	07/01/21		<1.00	<1.00	*	<1.00	<1.00	<1.00	<1.00	*	*	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.00	<0.400	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	<0.500	*	*	<0.500	<0.400	<0.750	<0.500	<0.500	--	<0.250	<0.200	<0.500	--	--	--	--
	07/06/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	<0.500	*	*	<0.500	<0.400	<0.750	<0.500	<0.500	--	<0.250	<0.200	<0.500	--	--	--	--
	10/17/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	<0.500	*	*	<0.500	<0.400	<0.750	<0.500	<0.750	--	<0.250	0.400	<0.500	--	--	--	--
	01/16/23		<0.440	<0.500	*	<0.400	<0.500	<0.500	<0.500	*	*	<0.350	<0.350	<1.00	<0.400	<0.500	--	<0.500	<0.200	<0.500	--	--	--	--
	05/03/23		<0.440	<0.500	<1.00	<0.400	<0.500	<0.500	<0.500	<1.25	<0.500	<0.350	<0.350	<1.00	<0.400	<0.500	--	<0.500	<0.200	<0.500	--	--	--	--
MW-3	10/07/11	5-15	<2.5	<10.0	*	<5.00	<10.0	<5.00	45.3	*	*	<5.00	2,730	<10.0	287	<10.0	--	<10.0	34.4	<5.00	--	--	--	--
	12/13/11		<5.00	<20.0	*	<10.0	<20.0	<10.0	21.2	*	*	<10.0	2,290	<20.0	172	<20.0	--	<20.0	21.0	<10.0	--	--	--	--
	03/07/12		<5.00	<20.0	*	<10.0	<20.0	<10.0	21.4	*	*	<10.0	1,330	<20.0	81.6	<20.0	--	<20.0	<10.0	<10.0	--	--	--	--
	06/25/12		<5.00	<20.0	*	<10.0	<20.0	<10.0	24.8	*	*	<10.0	2,090	<20.0	296	<20.0	--	<20.0	16.4	<10.0	--	--	--	--
	10/03/12		<5.00	<20.0	*	<10.0	<20.0	<10.0	68.0	*	*	<10.0	2,050	<20.0	**456**	<20.0	--	<20.0	29.8	<10.0	--	--	--	--
	12/28/12		13.2	<20.0	*	<10.0	<20.0	<10.0	29.4	*	*	<10.0	1,710	<20.0	99.2	<20.0	--	<20.0	41.4	<10.0	--	--	--	--
	09/30/14		<5.00	<20.0	*	<10.0	<20.0	<10.0	111	*	*	<10.0	3,060	<20.0	367.0	<20.0	--	<20.0	69.2	<10.0	--	--	--	--
	12/19/14		<5.00	<20.0	*	<10.0	<20.0	<10.0	55.4	*	*	<10.0	1,060	<20.0	166	<20.0	--	<20.0	84.2	<10.0				
	03/26/15		<0.500	<2.00	*	<1.00	<2.00	<1.00	76.6	*	*	<1.00	1,190	<2.00	365	<2.00	--	<2.00	70.3	<1.00	--	--	--	--
	07/07/20		<2.00	<10.0	*	<5.00	<20.0	<10.0	35.8	*	*	<4.0	3,530	<10.0	262	<10.0	--	<20.0	15.8	<10.0	--	--	--	--
	07/01/21		<1.00	<1.00	*	<1.00	<1.00	<1.00	90.5	*	*	<1.00	3,150	<1.00	333	<1.00	<1.00	<1.00	59.3	<3.00	<0.412	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	13.0	*	*	<0.500	1,160	<0.750	121	<0.500	--	<0.250	23.5	<0.500	--	--	--	--
	07/06/22		<0.440	<0.500	*	<0.400	<0.500	8.64	4,890	*	*	20.4	1,870	<0.750	288	1.55	--	0.960	464	<0.500	--	--	--	--
	10/18/22		<88.0	<100	*	<80.0	<100	<100	5,770	*	*	<100	2,210	<150	322	<100	--	<50.0	**2,920**	<100	--	--	--	--
	01/16/23		<0.440	<0.500	*	<0.400	<0.500	8.50	4,590	*	*	30.3	317	<1.00	200	1.77	--	0.967	**7,690**	<0.500	--	--	--	--
	1/16/2023***		<0.440	<0.500	*	<0.400	<0.500	8.69	4,580	*	*	30.7	303	<1.00	194	1.78	--	0.964	**7,770**	<0.500	--	--	--	--
	05/03/23		<0.440	<0.500	1.09	<0.400	<0.500	9.15	5,120	<1.25	<0.500	32.0	29.1	1.10	79.7	2.01	--	1.05	**5,960**	<0.500	--	--	--	--

Table 2. Groundwater Analytical Results
3720 NW Yeon Avenue
Portland, Oregon

			Volatile Organic Compounds																		Total Petroleum Hydrocarbons		
Sample ID	Sample Date	Well Screen Interval (feet bgs)	Benzene	SEC-Butylbenzene	Chloroethane	Ethylbenzene	Isopropylbenzene	1,1-Dichloroethene	cis-1,2 Dichloroethene	2-Hexanone (MBK)	n-Propylbenzene	trans-1,2 Dichloroethene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	1,2,4-Trimethylbenzene	1,2,3-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes	1,4-Dioxane	Gasoline	Diesel	Heavy Oil
			ug/L																				
MW-4	10/07/11	5-15	<2.50	<10.0	*	<5.00	<10.0	<5.00	1,980	*	*	33.7	**11,700**	<10.0	**3,940**	<10.0	--	<10.0	143	<5.00	--	--	--	--
	12/13/11		<25.0	<100	*	<50.0	<100	<50.0	1,730	*	*	<50	**14,100**	<100	**4,160**	<100	--	<100	117	<50.0	--	--	--	--
	03/07/12		<25.0	<100	*	<50.0	<100	<50.0	2,380	*	*	<50	**16,000**	<100	**5,040**	<100	--	<100	67.0	<50.0	--	--	--	--
	06/25/12		<25.0	<100	*	<50.0	<100	<50.0	1,760	*	*	<50	**19,600**	<100	**4,270**	<100	--	<100	<50.0	<50.0	--	--	--	--
	10/03/12		<25.0	<100	*	<50.0	<100	<50.0	2,770	*	*	<50	**16,000**	<100	**5,900**	<100	--	<100	<50.0	<50.0	--	--	--	--
	12/28/12		<25.0	<100	*	56.0	<100	<50.0	1,650	*	*	<50	**15,000**	<100	**3,910**	<100	--	<100	96.0	310	--	--	--	--
	09/30/14		<25.0	<100	*	<50.0	<100	<50.0	1,960	*	*	<50.0	**7,150**	<100	**3,300**	<100	--	<100	<50.0	<50.0	--	--	--	--
	12/19/14		<12.5	<50.0	*	<25.0	<50.0	<25.0	5,650	*	*	71.0	**10,500**	<50.0	**7,230**	<50.0	--	<50.0	124	<25.0				
	03/26/15		<25.0	<100	*	<50.0	<100	<50.0	5,960	*	*	80.0	**18,900**	<100	**9,210**	<100	--	<100	84.0	<50.0	--	--	--	--
	07/07/20		<2.00	<10.0	*	<5.00	<100	4.12	4,390	*	*	76.5	**7,550**	<10.0	**6,890**	<10.0	--	<100	125	<10.0	--	--	--	--
	07/01/21		<1.00	1.56	*	<1.00	<1.00	2.46	907	*	*	17.4	**1,840**	<1.00	**1,710**	<1.00	<1.00	<1.00	32.0	<3.00	0.435	--	--	--
	05/16/22		<0.440	0.951	*	<0.400	0.771	2.20	1,460	*	*	18.3	652	<0.750	**1,040**	<0.500	--	<0.250	112	<0.500	--	--	--	--
	5/16/2022***		<0.440	0.922	*	<0.400	0.831	<0.500	1,110	*	*	22.4	638	<0.750	**834**	<0.500	--	<0.250	114	<0.500	--	--	--	--
	07/06/22		<0.440	<0.500	*	<0.400	<0.500	0.815	209	*	*	2.04	47.1	<0.750	155	<0.500	--	<0.250	16.0	<0.500	--	--	--	--
	7/6/2022***		<0.440	<0.500	*	<0.400	<0.500	0.917	203	*	*	1.94	38.2	<0.750	151	<0.500	--	<0.250	15.2	<0.500	--	--	--	--
	10/18/22		<88.0	<100	*	<80.0	<100	<100	1,210	*	*	<100	<80	<150	<100	<100	--	<50.0	869	<100	--	--	--	--
	01/16/23		<0.440	0.977	*	<0.400	0.558	7.42	5,470	*	*	43.9	1.41	<1.00	67.7	1.50	--	0.605	**9,630**	<0.500	--	--	--	--
	05/03/23		<0.440	0.948	19.0	<0.400	1.19	0.693	155	<1.25	<0.500	2.17	0.406	<1.00	13.0	1.55	--	0.855	311	<0.500	--	--	--	--
	5/3/2023***		<0.440	1.04	18.6	<0.400	1.31	0.544	173	<1.25	0.508	1.86	<0.350	<1.00	13.4	1.74	--	1.02	304	<0.500	--	--	--	--
MW-1 (3322)**	02/16/10	4.5-19.5	<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<1.00	--	--	--	--
	10/03/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/28/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/19/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
MW-2 (3322)**	02/06/10		<0.250	<1.00	*	<0.500	<1.00	<0.500	54.9	*	*	0.990	105	<1.00	13.3	<1.00	--	<1.00	37.3	<1.00	--	--	--	--
	10/03/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	17.1	*	*	<0.500	29.9	<1.00	21.4	<1.00	--	<1.00	2.16	<0.500	--	--	--	--
	12/28/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	10.2	*	*	<0.500	173	<1.00	14.3	<1.00	--	<1.00	1.01	<0.500	--	--	--	--
	12/19/14		<5.00	<20.0	*	<10.0	<20.0	<10.0	873	*	*	<10.0	46.6	<20.0	24.0	<20.0	--	<20.0	24.0	<10.0	--	--	--	--
MW-5A (3322)**	09/28/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/19/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
MW-6 (3322)**	02/16/10		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	10/03/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/28/12		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	09/28/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
	12/19/14		<0.250	<1.00	*	<0.500	<1.00	<0.500	<0.500	*	*	<0.500	<0.500	<1.00	<0.500	<1.00	--	<1.00	<0.500	<0.500	--	--	--	--
MW-5 (grab sample)	06/24/21	20-30	<1.00	<1.00	*	<1.00	<1.00	5.27	5,890	*	*	37.7	196	1.57	217	<1.00	<1.00	<1.00	**3,840**	<3.00	<0.400	--	--	--
MW-6 (grab sample)	06/24/21	20-30	<1.00	<1.00	*	<1.00	<1.00	<1.00	687	*	*	8.99	<100	<1.00	<100	<1.00	<1.00	<1.00	889	<3.00	<0.400	--	--	--
MW-7 (grab sample)	06/24/21	20-30	<1.00	<1.00	*	<1.00	<1.00	4.93	2,650	*	*	15.6	**9,390**	5.88	**2,100**	1.48	1.61	<1.00	**3,750**	<3.00	<0.400	--	--	--
MW-8 (grab sample)	06/23/21	20-30	<1.00	<1.00	*	<1.00	<1.00	<1.00	46.9	*	*	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	46.0	<3.00	<0.400	--	--	--
MW-9 (grab sample)	06/25/21	20-30	<1.00	<1.00	*	<1.00	<1.00	1.43	414	*	*	2.53	**6,760**	1.07	581	<1.00	<1.00	<1.00	70.3	<3.00	<0.800	2,450	<100	<250
B33-GW	06/24/21	20-30	<1.00	<1.00	*	<1.00	<1.00	<1.00	<1.00	*	*	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.00	<0.400	--	--	--
B35-GW	06/23/21	20-30	<1.00	<1.00	*	<1.00	<1.00	<1.00	31.6	*	*	<1.00	4.86	<1.00	22.6	<1.00	<1.00	<1.00	28.5	<3.00	<0.400	--	--	--

Table 2. Groundwater Analytical Results
3720 NW Yeon Avenue
Portland, Oregon

			Volatile Organic Compounds																		Total Petroleum Hydrocarbons		
Sample ID	Sample Date	Well Screen Interval (feet bgs)	Benzene	SEC-Butylbenzene	Chloroethane	Ethylbenzene	Isopropylbenzene	1,1-Dichloroethene	cis-1,2 Dichloroethene	2-Hexanone (MBK)	n-Propylbenzene	trans-1,2 Dichloroethene	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)	1,2,4-Trimethylbenzene	1,2,3-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes	1,4-Dioxane	Gasoline	Diesel	Heavy Oil
			ug/L																				
MW-5	07/01/21	20-30	<20.0	<20.0	*	<20.0	<20.0	<20.0	**19,300**	*	*	67.0	3,490	<20.0	**1,410**	<20.0	<20.0	<20.0	**15,800**	<60.0	<0.400	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	7.53	9,310	*	*	48.6	1,720	1.52	**2,100**	<0.500	--	0.328	**9,910**	<0.500	--	--	--	--
	07/06/22		0.908	<0.500	*	<0.400	<0.500	21.4	**28,200**	*	*	147	937	5.09	**789**	0.562	--	0.617	**17,900**	<0.500	--	--	--	--
	10/17/22		<220	<250	*	<200	<250	<250	**23,500**	*	*	<250	<200	<375	<250	<250	--	<125	**16,900**	<250	--	--	--	--
	10/17/2022***		<220	<250	*	<200	<250	<250	**26,400**	*	*	<250	<200	<375	<250	<250	--	<125	**19,300**	<250	--	--	--	--
	01/16/23		0.612	<0.500	*	<0.400	<0.500	16.3	18,500	*	*	76.4	4.29	<1.00	2.79	<0.500	--	<0.500	**24,700**	<0.500	--	--	--	--
	05/03/23		0.647	<0.500	<1.00	<0.400	<0.500	7.63	16,000	1.37	<0.500	68.8	1.03	2.12	0.627	<0.500	--	<0.500	**14,200**	<0.500	--	--	--	--
MW-6	07/01/21	20-30	<10.0	<10.0	*	<10.0	<10.0	<10.0	20,200	*	*	159	31.9	<10.0	174	26.3	<10.0	<10.0	**24,600**	<30.0	<0.400	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	12.8	6,940	*	*	147	133	11.0	268	<0.500	--	<0.250	0.207	<0.500	--	--	--	--
	07/07/22		8.82	<0.500	*	<0.400	<0.500	25.2	**63,400**	*	*	307	1,520	14.9	454	<0.500	--	<0.250	**92,900**	<0.500	--	--	--	--
	10/17/22		<440	<500	*	<400	<500	<500	**39,800**	*	*	<500	<400	<750	<500	<500	--	<250	**47,900**	<500	--	--	--	--
	01/17/23		9.61	<0.500	*	<0.400	<0.500	15.8	**44,200**	*	*	213	1.16	<1.00	0.823	<0.500	--	<0.500	**73,800**	<0.500	--	--	--	--
	05/04/23		6.97	<0.500	10.8	<0.400	<0.500	12.7	**28,900**	<1.25	<0.500	201	0.694	18.4	0.403	<0.500	--	<0.500	**48,900**	<0.500	--	--	--	--
MW-7	07/01/21	20-30	<5.00	<5.00	*	<5.00	<5.00	<5.00	3,610	*	*	12.4	**9,670**	<5.00	**2,540**	6.68	<5.00	<5.00	**7,580**	<15.0	<0.400	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	6.54	3,820	*	*	16.2	**6,560**	3.22	**2,540**	0.554	--	0.451	**5,620**	<0.500	--	--	--	--
	07/07/22		2.21	<0.500	*	<0.400	<0.500	34.1	17,600	*	*	55.0	**10,000**	8.85	**3,010**	0.673	--	0.530	**29,500**	<0.500	--	--	--	--
	10/17/22		<440	<500	*	<400	<500	<500	12,400	*	*	<500	3,630	<750	**3,730**	<500	--	<250	**4,190**	<500	--	--	--	--
	01/17/23		<0.440	<0.500	*	<0.400	<0.500	7.81	3,910	*	*	10.8	7.51	<1.00	8.08	<0.500	--	<0.500	**4,080**	<0.500	--	--	--	--
	05/04/23		2.81	<0.500	4.65	0.407	<0.500	24.2	11,100	4.88	<0.500	38.7	0.569	9.26	2.05	1.50	--	1.31	**12,500**	<0.500	--	--	--	--
MW-8	07/01/21	20-30	<1.00	<1.00	*	<1.00	<1.00	<1.00	43.9	*	*	<1.00	8.76	<1.00	3.79	<1.00	<1.00	<1.00	42.8	<3.00	<0.400	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	44.7	*	*	<0.500	5.38	<0.750	5.11	<0.500	--	<0.250	52.6	<0.500	--	--	--	--
	07/06/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	35.8	*	*	<0.500	<4.00	<0.750	<5.00	<0.500	--	<0.250	51.8	<0.500	--	--	--	--
	10/18/22		<88.0	<100	*	<80.0	<100	<100	8,370	*	*	<100	<80.0	<150	<100	<100	--	<50.0	**2,670**	<100	--	--	--	--
	01/16/23		<0.440	<0.500	*	<0.400	<0.500	17.1	4,140	*	*	23.7	**7,460**	<1.00	**1,330**	<0.750	--	<0.500	**4,360**	<0.500	--	--	--	--
	05/04/23		<0.440	<0.500	<1.00	<0.400	<0.500	17.3	3,760	<1.25	<0.500	27.9	**6,430**	2.06	**1,590**	0.722	--	<0.500	671	<0.500	--	--	--	--
MW-9	07/01/21	20-30	<1.00	<1.00	*	<1.00	<1.00	<1.00	74.0	*	*	<1.00	360	<1.00	31.1	<1.00	<1.00	<1.00	32.2	<3.00	<0.400	--	--	--
	05/16/22		<0.440	<0.500	*	<0.400	<0.500	<0.500	186	*	*	<0.500	348	<0.750	241	<0.500	--	<0.250	40.4	<0.500	--	--	--	--
	07/07/22		<0.440	<0.500	*	<0.400	<0.500	5.57	**34,000**	*	*	23.0	35.5	<0.750	**834**	<0.500	--	0.302	**2,360**	<0.500	--	--	--	--
	10/17/22		<44.0	<50.0	*	<40.0	<50.0	<50.0	78.8	*	*	<50.0	<40.0	<75.0	<50.0	<50.0	--	<25.0	162	<50.0	--	--	--	--
	01/17/23		<0.440	<0.500	*	<0.400	<0.500	21.8	1,460	*	*	16.7	120	1.03	60.5	<0.500	--	<0.500	**4,440**	<0.500	--	--	--	--
	05/03/23		<0.440	<0.500	<1.00	<0.400	<0.500	25.1	5,660	<1.25	<0.500	40.2	141	2.65	416	<0.500	--	<0.500	**3,740**	<0.500	--	--	--	--
Oregon RBC - Volatilization to Outdoor Air (Occupational)[1]			14,000	NS	>S	43,000	>S	2,400,000	>S	NS	NS	>S	>S	>S	20,000	>S	NS	>S	**5,900**	>S	4,500,000	>S	>S	>S
Oregon RBC - Vapor Intrusion into Buildings (Occupational)[1]			2,800	NS	>S	8,200	>S	360,000	>S	NS	NS	>S	48,000	>S	**3,700**	>S	NS	>S	**880**	>S	4,500,000	>S	>S	>S
Oregon RBC - Groundwater in Excavation (Construction & Excavation Worker)[1]			1,600	NS	2,400,000	4,500	51,000	44,000	**18,000**	NS	NS	180	**5,600**	220,000	**430**	6,300	NS	15,000	**960**	23,000	3,400	14,000	>S	>S

Only detected compounds reported, see laboratory report for full list of analytes.
[1]Oregon Risk-Based Decision-Making for the Remediation of Petroleum-Contaminated Sites, Oregon DEQ Sept. 2003, Revised RBCs May 2018.
Bold text indicates an exceedance of one or more of the cleanup levels (cleanup levels exceeded are bolded as well)
bgs: below ground surface
µg/L: micrograms per liter
NS: No standard set for this compound
>S - RBC value is greater than the solubility limit
*: Compound was only detected in the May 2023 Q4 monitoring event
**: Monitoring well located on south adjoining property (3322 NW 35th Avenue)
***: This sample is a duplicate of the parent sample collected on the same date
T: Lab narrative indicating that the reporting limit was rasied due to suspect lab contamination identified in the method blank