



CONTAMINATED MEDIA MANAGEMENT PLAN



Irwin Hodson Property

2808 and 2838 SE 9th Avenue
Portland, Oregon 97202

Multnomah County Parcel R251319

Prepared for:

The Irwin Hodson Company

2838 SE 9th Avenue
Portland, Oregon 97202
Attn: Heather Brown

Issued on:

April 26, 2022

Project No. 186-19002-09

Purpose

This Contaminated Media Management Plan (Plan) must be followed by any person or entity hired or granted permission to conduct surface and subsurface work on the subject site (Irwin Hodson Property, 2808-2838 SE 9th Avenue, Portland, Oregon). This Plan applies to site development, operations, maintenance, and other work, and:

- Has been designed as a tool for architects, engineers, and others involved in the design, planning, and implementation of subject site redevelopment.
- Has been prepared in accordance with State of Oregon requirements.
- Outlines methods to minimize risk to human health and the environment from historical contamination beneath the site.
- Provides guidance for managing impacted soil and ground water.

ANY FIRM involved with earthwork / subsurface work, or ANY INDIVIDUAL who has the potential to encounter soil, ground water or surface water at the at the subject site must review, understand, and follow this Plan. Acknowledgement is required (Appendix A).

Use

This plan has been prepared for use during site redevelopment. The property owner must provide a copy of this Plan to any firm or person with the potential to come in contact with the contaminated media at the subject site (e.g., contractors, maintenance workers, landscapers, utility companies, etc.) prior to starting subsurface work.

The Plan includes generic requirements for conducting surface and subsurface work. Detailed sampling/work plans may need to be developed, depending on the nature of the subsurface work at the property. The Plan covers the following:

- Explains the current understanding of impacted media at the site.
- Details contractor, subcontractor, field personnel and permitting requirements.
- Outlines guidance and requirements for managing impacted media in a manner that is protective of human health and the environment.

This Plan must be reviewed and signed by any person involved in any work with the potential to come in contact with contaminated media at the subject site prior to site work. A copy of this Plan will be made available to all personnel involved as a reference, with at least one copy being kept onsite during work. In order to document review and understanding, an acknowledgement page has been prepared (Appendix A) and must be signed by anyone conducting work involving contaminated media at the site prior to the commencement of this work.

Plan Revisions

Users of this Plan are advised that Oregon Department of Environmental Quality (ODEQ) regulations and other applicable state or federal regulations and guidance may change in the future and applicable regulations should be reviewed prior to commencing any subsurface work. If it is believed that local and State regulations related to contaminated soils have changed, revisions to the Plan may be necessary to reflect current regulatory standards. Additionally, the Contact Information listed in Attachment B should be kept current.

This

Contaminated Media Management Plan

for:

Irwin Hodson Property
2808 and 2838 SE 9th Avenue
Portland, Oregon 97202

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

The Irwin Hodson Company
2838 SE 9th Avenue
Portland, Oregon 97202
Attn: Heather Brown

and its assignees

Issued
April 26, 2022

by:



Assumptions and Limitations

This Contaminated Media Management Plan (Plan) is designed to provide earthwork contractors with guidance for the proper handling and management of potentially contaminated media. This document is intended to be used as a general overview document for use by the excavation contractor during any earthwork completed at the project site. This Plan is reflective of site conditions discovered through environmental site assessments. Required actions described in this Plan are consistent with State of Oregon and Oregon Department of Environmental Quality rules, regulations and guidance enforce and available as of the date of issue. The user of this Plan is advised to check for any updates that may be applicable to a specific scope of work being conducted under this Plan. Each contractor and subcontractor are responsible for the safety of its employees, including compliance with applicable OSHA regulations and compliance with all specifications for the project.

No warranties are expressed, or implied concerning potential contaminants or environmental media not addressed through sampling and analysis. EVREN Northwest, Inc. is not responsible for conditions or consequences arising from information not available at the time of Plan preparation. This Plan was prepared in accordance with generally accepted professional practice in the area at this time for the exclusive use of our client and their agents or authorized third parties. No other warranty, either expressed or implied, is made.

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List of Acronyms and Abbreviations

amsl	above mean sea level	NFA	No Further Action
AST	above ground storage tank	NPDES	National Pollutant Discharge Elimination System
bgs	below ground surface	OAR	Oregon Administrative Rule
CFSLs	clean fill screening levels	ODEQ	Oregon Department of Environmental Quality
Client	The Irwin Hodson Company	OSHA	Occupational Safety & Health Administration
COI	contaminant of interest	PAH	polynuclear aromatic hydrocarbon
cVOC	chlorinated volatile organic constituent	PBS	PBS Engineering and Environmental
DRO	diesel-range organics	PCE	tetrachloroethene
DU	decision unit	PID	photoionization detector
ECSI	Environmental Cleanup Site Information	ppm	parts per million
EDC	1,2-Dichloroethane	RAO	Remedial Action Objective
ELR	EnviroLogic Resources	RBC	risk-based concentration
ENW	EVREN Northwest, Inc.	RCRA	Resource Conservation and Recovery Act
ESA	Environmental Site Assessment	SAP	sampling and analysis plan
FSI	Focused Site Investigation	SLRBCs	screening-level risk-based concentrations
GRO	gasoline-range organics	SSV	sub-slab ventilation
HAZWOPER	Hazardous Waste Operations and Emergency Response Standard	SWI	soil-water interface
ISM	Incremental Sampling Methodology	TCE	trichloroethene
ITRC	Intestate Technology & Regulatory Council	UST	underground storage tank
LOF	Locality of Facility	VOC	volatile organic constituent
LUST	leaking underground storage tank		
µg/L	microgram per Liter		
mg/Kg	milligram per Kilogram		

1.0 Site Setting & Environmental Conditions

This Plan applies to the Irwin Hodson Property located 2808 and 2838 SE 9th Avenue in Portland, Oregon (subject site or subject property). Please reference Figure 1 for a site vicinity map and Figure 2 for site features.

1.1 Site Location and Setting

The subject property is located on the northeast corner of the intersection of SE 9th Avenue and SE Woodward Street in Portland, Oregon. The approximately 0.85-acre subject property is rectangular in outline with an industrial warehouse building covering the entire building footprint. Multnomah County has zoned the subject property IG1 – General Industrial 1, which allows for manufacturing, warehouse and freight movement, wholesale sales, industrial services, railroad yards, and parks and open spaces. Adjacent properties to the west, north, and east are similarly zoned IG1. The properties across SE Woodward Street to the south are zoned EXd – Central Employment.

Historical Use. The subject site is an industrial property located in an industrial area of SE Portland. Industrial land use of the site and surrounding area dates back to the early 1900s. Previous occupants of the subject site include the Iron Fireman Manufacturing Company. Irwin Hodson has occupied the site since the mid-1960s, operating a metal sign and printing company out of four warehouse buildings on the property. Irwin Hodson currently shares the buildings with four other small light industrial businesses. A complete account of the subject site’s operational history is described in more detail in EVREN Northwest’s (ENW’s) Work Plan.¹

Topography. The subject site is located within the U.S. Geological Survey Portland, OR 7.5-minute quadrangle, at an approximate elevation of 50 feet above mean sea level (see Figure 1). Locally, the area slopes gently to the southwest toward the Willamette River.

Regional Geologic Setting. The floor of the Portland Basin largely consists of Holocene sediments in the streambeds and flood plains of the active rivers and tributaries, and glacial outburst flood deposits of the late Pleistocene Missoula Floods which have been mapped at up to 400 feet elevation above mean sea level. Geologic mapping of this portion of Portland shows the site is located on the Channel Facies of Missoula Flood deposits (Qfch).² Complexly interlayered and variable silts, sands, and gravels fill these channels, which are cut in earlier and/or contemporaneous fine and coarse flood sediments. Post-flood surfaces are irregular and have been locally filled by bog or pond sediments and by overbank alluvium from local creeks such as Johnson Creek. Additionally, historical records of the SE Portland Industrial District document significant importation of fill soil during early development of the area.

¹ ENW, September 30, 2020. *August 2020 Work Plan for Data Gap Investigation*, Irwin Hodson Property, 2808 and 2838 SE 9th Avenue, Portland, Oregon 97202, Multnomah County Parcel R251319, ODEQ LUST File Number 26-97-0130. Prepared for The Irwin Hodson Company.

² Madin, I.P., 1990, Earthquake Hazard Geology Maps of the Portland Metropolitan Area, Oregon: Oregon Department of Geology and Mineral Industries Open File Report 0-90-2.

Local Geologic Setting. Soil borings completed at the site generally encountered fine sediments consisting of silt grading to sand down to a depth of approximately 18 feet below ground surface (bgs). These fine-grained sediments are underlain by dense, coarser-grained materials consisting of sands, gravels and cobbles that extended to the maximum depth drilled of 50 feet bgs.

Surface Water and Ground Water. No surface water bodies are present at the subject site. The nearest surface water body is the Willamette River, located approximately 1,300 feet west of the site.

An out-of-service industrial well (MULT 2778) was decommissioned at the subject site in June 2019. This 4-inch diameter well was deepened from 113 feet to 153 feet bgs in March 1967, at which time a static water level of 24 feet was recorded. The driller's log indicates that the well terminated in large, water-bearing gravel.

The US Geological Survey and Oregon Water Resource Department Oregon Water Science Center interactive map estimates a depth to ground water at the site of approximately 26 feet bgs. Depth to static water measured from temporary exploratory borings during this investigation ranged from approximately 27 to 33 feet bgs and depth to water in offsite monitoring wells located west of the subject site that were sampled as part of this investigation range from approximately 35 to 40 feet bgs. Ground water flow direction is anticipated to be southwesterly.

1.2 Summary of Regulatory and Environmental Investigation History

The site is listed on the ODEQ's Leaking Underground Storage Tank (LUST) database as LUST File No. 26-97-0130 for a release of petroleum hydrocarbons from a 1,760-gallon heating oil tank.

In January 2016, Wohler's *Phase I Environmental Site Assessment (ESA)*³ reported, in addition to the open LUST File (26-97-0130), the following potential concerns at the subject site: two vent pipes suggesting the presence of additional underground storage tanks (USTs); historical records of three boiler rooms; and potential migration of hazardous substances onto the subject site from north-adjointing Portland Coke and Gas Works (PCGW) site (Environmental Cleanup Site Information [ECSI] Site No. 1488). The Phase I ESA recommended a subsurface investigation of the former boiler rooms, active heating oil tank, and USTs possibly associated with vent pipes, along with periodic regulatory file review of findings and cleanup progress at the PCGW facility.

In March 2016, PBS Engineering and Environmental (PBS) addressed the recommendations in the Phase I ESA (see *Risk-Based Evaluation*⁴) and found that the 1,760-gallon heating oil tank had been decommissioned in place in 1997 and investigated in 2004/2005, though ground water had not been characterized after finding petroleum impacts extending to a depth of 20 feet bgs. Oregon Department of Environmental Quality (ODEQ) reportedly rescinded a 2005 No Further Action (NFA) determination on the basis that insufficient information regarding decommissioning of an on-site industrial well had been provided. With assistance from Oregon Water Resources Department, PBS located the industrial well in February 2016 and found that the well's manhole had several inches of water in it. PBS sounded the well and found that the well appeared to have been backfilled with a concrete-like material. On that basis, PBS incorrectly concluded that the well had been decommissioned. PBS completed a risk-based evaluation using existing data and ground water information from a remedial investigation at the north-adjointing

³ Wohlers, January 16, 2016. *Phase I Environmental Site Assessment*, 2808 and 2838 SE 9th Avenue, Portland, Oregon, prepared for Holland + Knight LLP.

⁴ PBS, March 2016. *Risk-Based Evaluation*, LUST File No. 26-97-0130.

property. Based on a review of PBS' risk-based evaluation, ODEQ issued an NFA for LUST File No. 26-97-0130 in a letter dated April 4, 2016.

During the first half of 2019, EnviroLogic Resources (ELR)⁵ researched environmental work at the north adjoining PCGW property (ECSE #1488), conducted a geophysical survey and subsurface investigation of the subject site, and oversaw the decommissioning of the on-site industrial well. Results are outlined below:

- **North Adjoining PCGW Research.** ELR found that the northwest portion of the subject site may be underlain by a west to southwestward-migrating ground-water contaminant plume from PCGW.
 - PCGW-related constituents of interest (COIs) include petroleum hydrocarbons (gasoline, diesel, and lubrication oils), aromatic volatile organic constituents (VOCs), polynuclear aromatic hydrocarbons (PAHs), cyanide, and metals associated with manufactured gas-related products and waste. Chlorinated VOCs (cVOCs) have also been detected at the PCGW site.
 - An aromatic VOC plume originates at the PCGW property primarily within shallow ground water and extends off-site approximately 125 feet to the south and 150 feet to the west.
 - A cVOC plume in intermediate-depth ground water was detected beneath the western half of the PCGW site and extends over 400 feet to the west beyond SE 8th Avenue.
 - There were no detections of cVOCs in PCGW's shallow monitoring wells located upgradient of the subject site.
- **Geophysical Survey and Subsurface Investigation.** No evidence was found to suggest any UST systems remain at the subject site. Petroleum hydrocarbons, VOCs, cVOCs, and/or select semi-volatile organic constituents (SVOCs) were detected at each of the nine sampled locations. ELR concluded that sampling suggests that indoor/outdoor air may not actually be impacted, and indoor/outdoor air sampling may not be useful given the chemicals used onsite and in the adjacent commercial/industrial area.
- **Well Decommissioning.** On June 18-21, 2019, the former onsite production well (MULT 2778), located at the east end of the main alley on the central portion of the property, was appropriately decommissioned.

In August 2019, ENW's *Focused Site Investigation (FSI)*⁶ was conducted for the purpose of further identifying the source and extent of hazardous vapor impacts beneath the subject site. The FSI reported residual VOC-impacted soil, sub-slab vapor and soil gas beneath the subject property.

⁵ EnviroLogic Resources, June 26, 2019. Status Update Memorandum at, 2808 and 2838 SE 9th Avenue, Portland, Oregon, to File – 10451.001-.002/Irwin-Hodson Building(s) Property P1 & P2 ESA.

⁶ ENW, October 16, 2019. *Focused Site Investigation*, Irwin Hodson Property, 2808 and 2838 SE 9th Avenue, Portland, Oregon 97202, Multnomah County Parcel R251319, ODEQ LUST File Number 26-97-0130. Prepared for The Irwin Hodson Company.

Since subsurface investigations suggested TCE concentrations exceeded ODEQ's occupational vapor intrusion into buildings RBC, ENW investigated indoor air^{7,8}. Based on these two indoor air sampling events, ENW concluded that unacceptable levels of TCE in indoor air should be mitigated. ENW commented that further investigation of the source of VOCs may be necessary to maximize efficiency and effectiveness of mitigation options.

After reviewing ENW's *Indoor Air Assessments*, FSI, and *Industrial Water Well Decommissioning at Irwin Hodson Building Report*,⁹ ODEQ identified several data gaps at the subject site. To address these data gaps, ENW completed an investigation into data gaps, the results of which identified the following:

- Low-level TCE impacted soils, occurring at depths up to 10 feet bgs, from potential sources near former Photo Development area, historical Cleaning Room, and historical Spray Paint Booth are conservatively estimated to underlie most of the NE building quadrant. Spotty occurrences of gasoline-range organics (GRO), PAHs, arsenic and lead are associated with TCE, though such impacts do not appear to pose an unacceptable human health risk for complete soil exposure pathways and receptor populations.
- Aromatic volatiles impacts are confined to benzene detected in a soil-water interface (SWI) sample collected near the northwest corner of the on-site building (B04) at 35 feet bgs. No petroleum hydrocarbons or other volatile constituents were detected in this sample. ENW believes that benzene detected in this sample is dissolved in ground water, the plume of which has migrated from a source at the north-adjacent NW Natural (former PCGW) property onto the subject site. Other than this one exception, deeper site-related soil impacts were not identified during this investigation.
- Low-level TCE impacted shallow ground water in B01 beneath the suspected historical Cleaning Room source, in B05 at the western alley southwest of the source area, and in MW-12-50 at the northwest corner of the intersection of SE Woodward Street and SE 9th Avenue, does not appear to pose an unacceptable human health risk. Since the Ingestion & Inhalation from Tap Water exposure pathway is not a reasonably likely complete within or surrounding the Locality of Facility (LOF), TCE is not reasonably likely to impact current beneficial uses of ground water.
- Ground water is impacted with petroleum hydrocarbons and several petroleum-related VOCs; however, their presence does not appear to pose an unacceptable human health risk for complete exposure pathways and receptor populations. Based on the absence of significant petroleum impacts in soil at the site, recent detections of GRO and diesel-range organics (DRO) in cross-gradient well MW-14-45, and documented petroleum impacts at the upgradient NW Natural (former PCGW) property, the ground water impacts by petroleum constituents appear to be from an offsite source.

⁷ ENW, December 17, 2019. *Indoor Air Assessment*, Irwin Hodson Property, 2808 and 2838 SE 9th Avenue, Portland, Oregon 97202, Multnomah County Parcel R251319, ODEQ LUST File Number 26-97-0130. Prepared for The Irwin Hodson Company.

⁸ ENW, October 23, 2020. *Indoor Air Assessment, 2nd Event – September 2020*, Irwin Hodson Property, 2808 and 2838 SE 9th Avenue, Portland, Oregon 97202, Multnomah County Parcel R251319, ODEQ LUST File Number 26-97-0130. Prepared for The Irwin Hodson Company

⁹ ENW, February 25, 2020. *Industrial Water Well Decommissioning at Irwin Hodson Building Report*, Irwin Hodson Property, 2808 and 2838 SE 9th Avenue, Portland, Oregon 97202, Multnomah County Parcel R251319, ODEQ LUST File Number 26-97-0130. Prepared for The Irwin Hodson Company.

- TCE in soil gas/sub-slab vapor beneath the building poses a potential unacceptable human health risk to current and future occupational workers. During this investigation, the lateral extent of soil vapor impacts by TCE appears to be delineated on-site. The source(s) of TCE in soil vapors is believed to be the historical features in the NE Building quadrant. The lateral extent of soil vapor impacts appears to be delineated to the west by SUB11, to the south by SG05, SG06, SG08, SG09, SUB10 and SUB12, and to the east by SG10.
- Arsenic in soil exceeds the RBC for the *Soil Ingestion, Dermal Contact, and Inhalation* pathway for an occupational receptor. However, arsenic is not volatile, and the site is currently completely capped by a building, mitigating current risk of exposure through dermal contact or soil ingestion.

As a result, ENW recommended the implementation of a focused soil removal effort with installation of a sub-slab vapor barrier with provisions for later depressurization if warranted. This work was performed in August through October 2021. The results of which are summarized below.

- A total of 787.77 tons of VOC- and petroleum-impacted soils were excavated and transported to Hillsboro Landfill for disposal under Waste Management’s WAM Profile #OR135917.
- Confirmation soil samples were collected from the final limits of the excavation and analyzed for VOCs, total arsenic, GRO and DRO and related petroleum constituents as appropriate. It was noted that petroleum hydrocarbon impacts were likely related to Stoddard solvents and heavy oil.
- None of the residual concentrations exceeded primary Remedial Action Objectives (RAOs).
- While residual TCE at concentrations greater than secondary RAOs occurs in some areas, the installed vapor barrier with underlying sub-slab ventilation (SSV) system are anticipated to mitigate vapor intrusion into the building. Future sub-slab vapor and indoor air monitoring actions pursuant to a monitoring plan will be performed to confirm the effectiveness of these remedial actions.

1.3 Overview of Known Residual Contamination

All contractors are advised that the information presented herein is based on data available through sampling under one or more specific Scopes of Work; 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.

Previous investigations have identified residual impacted ground water and soil at the subject site as follows:

- Soil impacts related to TCE, naphthalene, PCE, and petroleum hydrocarbons appear to be mostly limited to the area of soil removal, in the northeast quadrant of the subject site.
- Possible arsenic enrichment likely extends throughout the site.
- PAH, copper, and lead impacts remain in the southwest quadrant of the site.
- Benzene impacts remain along the western site boundary.

However, all soil and ground water on site have the potential to be impacted. None of the residual soil or ground water impacts were identified as a potential risk to construction or excavation workers. The media-handling protocol described in this Plan is intended to minimize the risk to site workers during earthwork.

Please reference Figures 3 and 4, Sample Location Diagrams, for sampling locations. Table 1 provides a summary of soil sampling results and Table 2 provides a summary of ground water sampling results. Table 3 provides a location summary table (Areas of Possible Concern) listing sample locations that exceed Clean Fill Screening Levels (CFSLs).

2.0 Site Work Initiation

This section describes work to be conducted and requirements to be met *prior* to beginning site work.

2.1 Notifications, Permits and Other Approvals

All notifications, legally required permits or other approvals required to conduct the work to be performed will be made or obtained prior to starting work at the site. Such permits may include a National Pollutant Discharge Elimination System (NPDES) 1200-C Construction Stormwater Permit, a permit from the City of Portland Bureau of Development Services, and an Erosion and Sediment Control Plan.

2.2 Contractor Requirements

Contractors and/or subcontractors hired to conduct subsurface work at the site will be competent and experienced in the management of media impacted with hazardous substances. Pre-planning of anticipated work with the Environmental Consultant (contact information in Attachment B) is recommended.

2.3 On-Site Personnel

All field personnel who have the potential for coming in contact with impacted media will:

- Have their Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) Forty (40) Hour training and certification, as well as annual updates.
- Have a copy and be familiar with the Health and Safety Plan (see Section 2.4).
- Have reviewed this Plan and signed the acknowledgement page (Attachment A). The signed acknowledgement pages will be available for the property owner's or site management's inspection and permanent record-keeping, if requested.

2.4 Health and Safety Plan

Any contractor conducting earthwork at the subject site must prepare and implement a site-specific Hazard Communications Plan. The Hazard Communications Plan fulfills "worker right to know" requirements (29 CFR 1926.59). A copy of the Hazard Communications Plan must be submitted to the Owner prior to the start of work on the project. During work on the project, the Hazard Communications Plan must be posted at the project site. The general contractor is responsible for notifying any subcontractors of pertinent environmental conditions. Subcontractors may either adopt the prime general contractor's Hazard Communications Plan or must prepare their own Hazard Communications Plan. This document should be used in conjunction with, not in place of, the Hazard Communications Plan and the project specifications. The general contractor and subcontractor are responsible for the safety of its employees, including compliance with applicable Occupational Safety & Health Administration (OSHA) regulations, and compliance with all specifications in the technical specifications for the project.

In addition, a Health and Safety Plan specific to the work to be performed will be prepared according to industry standards. At a minimum, OSHA standards specific to the work to be performed will be met. The Health and Safety Plan should be prepared by a qualified specialist knowledgeable about health and safety issues, the contaminants identified at the site, the previously documented site conditions, and the proposed contractors' scope of work.

2.5 Corrective Action

If requirements outlined in this Plan are not fully or timely completed, the property owner will take appropriate corrective action to meet the intent of this Plan and in doing so will remain in compliance with this Plan.

3.0 Soil Management

ODEQ requires contaminated media to be adequately characterized to determine management options. When soil is highly contaminated, the generation, treatment, transportation, and disposal may fall under both state and federal hazardous waste regulations.¹⁰ Contaminated media that is not hazardous waste is regulated under Oregon Administrative Rule (OAR) Chapter 340-093 for solid waste.

For the purposes of this Plan, contaminated soil is defined as soil with concentrations of hazardous substances greater than the CFLs (ODEQ July 2014), or screening-level risk-based concentrations (SLRBCs; see OAR 340-122-0115). It is important for field personnel to know how to identify, characterize (if appropriate), and manage contaminated soil.

A detailed soil sampling and analysis plan is outside the scope of this document as the specifics would be determined by the scope(s) of work to be conducted at the site. To minimize expenses from any surface or subsurface project, we recommend reviewing the scope with the Environmental Consultant.

3.1 Identification of Impacted Soil

Based on available data, all soil and ground water on site has the potential to be impacted. Impacted soil may be identified using any of the following methods:

- Visual observation of discolored soil (staining).
 - Generally, soil that is contaminated with petroleum hydrocarbons exhibits gray or black staining, although other contaminants and natural conditions may also cause staining.
- Olfactory observation of a petroleum odor.
 - Petroleum products, solvents, and other types of contaminated soil may release vapors when exposed to the atmosphere. If concentrated enough, these vapors will be interpreted as an odor. Odors may also be present in contaminated groundwater. Odor can be subjective, and inhalation of vapors from impacted soil is harmful to human health.

¹⁰ When soil is contaminated by a listed or characteristic hazardous waste, then soil contains a hazardous waste and must be managed accordingly. ODEQ hazardous waste generator requirements are triggered when the contaminated soil is removed from its original location.

Therefore, odor is considered an inadvertent field indicator and will not be used for continuous screening of soil.

- Sheen
 - Sheen is another indication of petroleum contamination. Soil with a sheen may appear shiny and reflective. Sheens from heavily impacted soil may appear iridescent with rainbow-like colors. Sheens may also be observed in contaminated groundwater.
- Collection and analysis of soil for constituents of concern.
- Indication of impacts by instrumentation designed for screening for volatile constituents (e.g., photoionization detector [PID]).
 - PID readings involve the measurement of headspace vapors originating from a soil sample. PID screening is performed by placing a soil sample in a plastic bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a PID is inserted into the bag, which measures VOC vapor (petroleum constituent) concentrations in units of ppm. A PID is designed to quantify VOC vapor concentrations in the range between 1 and 2,000 parts per million (ppm). It should be noted that a PID may give false positive readings in the presence of water vapor and rain may also affect performance. High humidity can cause lamp fogging and decreased sensitivity. This can be significant when soil moisture levels are high.
- Where both soil and ground water are present, soil impacts may be indicated by observation of iridescent sheen or separated fluid phases (i.e., immiscible liquids).

Section 1.3 describes the area where potential residual soil impacts could be present on the subject property. However, anyone performing subsurface work at the site should be prepared for the possibility to encounter impacted soil and water in other areas as well.

It is important to note that there may be impacted media on site in areas that ENW has not assessed. If soils with significantly different characteristics than those previously identified are excavated at the site, they may need to be appropriately characterized by laboratory analyses prior to disposal or reuse onsite. They should be brought to the attention of the Project Manager or Environmental Consultant. The Environmental Consultant will notify ODEQ, if applicable, to ensure proper characterization and management under this scenario.

If samples are to be collected, they should be collected by personnel knowledgeable in soil sampling methods and protocols, ensuring that appropriate sample selection, collection (whether discrete or composite), labeling, and storage methods are followed.

If soil exhibiting evidence of contamination or other debris associated with chemical contamination is encountered during excavation work, it should be brought to the immediate attention of the Environmental Consultant. However, it must be emphasized that some impacted soils do not exhibit any physical indication of their impacts (e.g., no odor or discoloration or PID response associated with metals-impacted soils). Therefore, the most reliable method of determining if chemical impacts are present is laboratory analysis.

3.2 Field Screening Protocols

Soil field screening will include observation of any disturbed project site soil. Soil field screening should be conducted at a minimum frequency of one grab sample per approximately 20 cubic yards or more frequently as needed. The field screening process includes the following:

- Observe the sidewalls and bases of excavations (or trenches) for evidence of possible contamination.
- Three inches of soil will be scraped from sidewalls prior to collection of samples. If samples are collected from an excavation bucket, they should be collected from the interior and away from the sides of the bucket.
- Collect grab samples by hand or trowel (approximately one hand full) that are representative of the material being stockpiled. If used, the trowel will be decontaminated between sampling intervals.
- Retain a portion of the samples (approximately the size of half a sugar cube) for sheen testing that includes dropping the soil into a black pan to observe the degree of soil sheen (no sheen, slight sheen, moderate sheen, or heavy sheen).
- The majority of the grab sample will be placed into a plastic bag with trapped air. The bagged sample is allowed to sit for approximately one minute and then tested for headspace vapors using a hand-held PID. Based on the routine field screening process and the use of standard bag size, it is assumed that the amount of trapped air in each bag is approximately equivalent for all field-screened samples. Calibration of the PID will be conducted on a daily basis and will be recorded in a calibration log. The calibration log will document the PID model calibration standard used and background level after calibration.
- Field screening documentation (i.e., staining, sheen, headspace vapor measurements, and odors) and a brief description of the soil type shall be recorded in soil field screening logs. The field logs will indicate areas and associated volumes of excavated material requiring stockpiling for further evaluation.

3.3 Management of Impacted Soil

During site excavation, all soil will be monitored and field-screened for potential impacts during site excavation activities. If suspect subsurface features are encountered (e.g., underground storage tanks, piping, dry wells, sumps, etc.) or field-screening suggest impacts, all excavated or disturbed soil in these areas will be managed as impacted soil unless the Project Manager chooses to conduct additional sampling and testing (according to ODEQ-approved methods) and determines the soil is not impacted. If any soils are identified through observation or olfactory indication (sight or smell) as being impacted outside previously identified areas (Section 1.3), this will be brought to the attention of the Environmental Consultant (see Attachment B for contact information). Soil testing, if appropriate, would be conducted to determine the regulatory status of impacted soil (e.g., soil with contaminants at levels triggering special regulatory, handling, and/or management requirements) and to confirm removal of impacted soil, if applicable.

If impacted soil is excavated, it must be managed as a contaminated material. Unless otherwise directed by the Project Manager, the preferred method of excavation and disposal of impacted soil will be to load the material directly into transport vehicles for off-site disposal.

3.3.1 Stockpiling

Soils generated during excavation activities may be temporarily stockpiled for further evaluation (for example, if soil needs to be characterized prior to exporting from the subject site). Soil that is placed in temporary stockpiles must be well maintained at all times. All stockpiled soil must be placed either (1) in enclosed and covered metal bins with plastic liners; (2) in sealed 55-gallon drums; or (3) on impermeable plastic sheeting (minimum 6-mil thick) with a berm around the perimeter of the stockpile and a plastic sheeting cover. The plastic sheeting and berm prevent the runoff of stockpiled soil contaminants to surrounding areas. The berm may be constructed with hay bales or other equivalent methods approved by the Owner. The bottom plastic sheeting should be lapped over the berm materials, and the soil stockpile within the berm should also be covered with plastic sheeting to prevent erosion or leaching of contaminants. The upper plastic sheeting covering the soil stockpile should be secured using sandbags or equivalent. The upper plastic sheeting prevents the stockpiled soil from being exposed to precipitation and wind.

These soils may be temporarily managed on-site for no more than 30 days. If stockpiled soils must remain at the site longer than 30 days, a Solid Waste Letter of Authorization must be obtained from ODEQ. If soil stockpiles are to be exported offsite, testing of the stockpile to confirm appropriate disposition is required (see Section 3.3.2)

3.3.2 Characterization of Soil to be Exported

Stockpiled soil for offsite export shall be sampled following using the guidance provided in the Interstate Technology & Regulatory Council (ITRC) Incremental Sampling Methodology (ISM) guidance document. Representative samples from temporary soil stockpiles will be collecting using ISM, through which multiple “increments” (samples of equal mass) are collected across a targeted area, identified as a “decision unit” or DU. The increments from each DU are composited and processed to derive a statistically valid average concentration across the target area.

ISM subsamples will be collected using a decontaminated stainless-steel hand auger and/or stainless-steel hand shovel and/or excavator bucket (for large stockpiles). Sampling depths will depend on the volume and dimensions of the stockpile and will be selected to ensure that the upper, middle, and lower portions of the stockpile are equally represented, based on stockpile geometry. For the purposes of statistical quality control, two replicate samples may be collected from a stockpile, in addition to an initial sample. A total of 50 increment subsamples will collected from each stockpile (along with 50 subsamples for each replicate sample, as applicable) and will be placed into their own dedicated laboratory-provided one-gallon glass sample jars, uniquely labelled, and immediately placed in cooled storage pending delivery to the laboratory. Sampling personnel will wear fresh Nitrile gloves, and all sampling equipment will be decontaminated prior to sampling each stockpile (and replicates, as applicable) to prevent cross-contamination between samples.

ISM samples will be submitted to a laboratory for processing in accordance with ITRC protocols, prior to analysis. Sampling shall be conducted by the Environmental Consultant.

3.3.3 Off-Site Disposal of Impacted Soil

Unless otherwise directed by the Project Manager, the preferred method of excavation and disposal of impacted soil will be to load the material directly into transport vehicles for off-site disposal. Transport to a landfill authorized to accept contaminated materials will require a waste disposal permit. It is anticipated that disposal of impacted soils, if necessary, will be acceptable at a Resource Conservation and Recovery

Act (RCRA) Subtitle D Landfill Facility. The data does not suggest the presence of hazardous waste at the site. If, however, hazardous waste is encountered, it will be properly characterized for disposal at a hazardous waste landfill.

Upon approval from the receiving facility, the stockpiled material can be loaded into trucks for transport. The contractor must exercise care during loading of the potentially contaminated soil to minimize spillage of the soil onto the ground surface. All trucks leaving the project site must be free of loose soil on the exterior of the trucks and may require covers. Contaminated soil loaded into trucks should be covered if weather conditions could cause soil to blow out (dry, warm, or windy conditions) during transport to the disposal facility. The contractor must use care not to track soil onto city roads. Trucks will not be allowed to leave the site if liquids are draining from the load. Transport tracking tickets may be required to document delivery to the approved disposal facility for each individual truck leaving the project site.

3.4 Cultural Resources

Cultural or archaeological artifacts have not been identified at the project site. However, if cultural or archaeological resources are inadvertently discovered during excavation, work in the area must stop and the Legislative Commission on Indian Services shall be notified by calling (503) 986-1067. The Oregon State Historic Preservation Office should be contacted regarding discovery or potential damage to archaeological sites. The Owner should also be contacted so that modifications to the work scope may be discussed.

3.5 Import Fill Characterization

If the importation of fill soils, other than soil purchased from a commercial source, such as compost and/or aggregate, is required for this project, ENW will prepare a Sampling and Analysis Plan (SAP) to document that fill being imported meets ODEQ's CFSLs, specifically testing for RCRA metals and petroleum hydrocarbons, to ensure concentrations in soil to be imported are not above established background concentrations in this area. The SAP for this testing will likely incorporate ISM and will be completed once the source for soil fill has been identified, if applicable. ODEQ must review this SAP and analytical results, and approve the import of materials used on site, prior to importation. Depending on the source and previous site use of the source material, analytical requirements may include contaminants beyond RCRA metals and total petroleum hydrocarbons. For example, if fill is to be sourced from agricultural property, imported fill will also be tested for pesticide residues.

3.6 Protective Measures for Workers

The media-handling protocol described in this Plan is intended to minimize the risk to site workers during earthwork as well as to future occupants of the site. This section provides general measures to be taken to protect workers from impacted soil.

On-site workers may be exposed to contaminants through incidental:

- Ingestion of soil.
- Dermal contact (through the skin).
- Inhalation of impacted airborne dust and vapor.

To reduce exposure:

- All personnel will minimize their direct contact with soil, and wear project-specific personal protective equipment identified by the Health and Safety Plan.
- Contaminated clothing should be washed with a strong detergent and hot water before reuse.
- Personnel will thoroughly wash their hands and other exposed body parts, as necessary, upon leaving the work area and before eating, drinking, or other activities.
- Release of dust and vapors to the air should be minimized, and all personnel will remain upwind of the work areas to the maximum extent practical.

3.7 Protective Measures for the Environment

This section provides general measures to be taken to protect the environment from contaminants in soil. Depending on construction scope, federal, state, and local permits or other project approvals will provide the detailed protective measures required. The environment may be exposed to contaminants through incidental:

- Wind-borne dispersion.
- Transport by surface water.
- Transport by site equipment or workers.
- Contact by public or environmental receptors (e.g., birds and animals) that enter the work area.

To reduce exposure:

- Control access to earthwork area through fencing, signage, or other means.
- Implement dust-control methods, if needed.
- Prevent surface water from leaving the work area.

3.8 Record Keeping

The contractor is responsible for keeping a detailed daily record of all soil excavation, stockpiling, export, and disposal of stockpiled soil. This includes the purpose, origin, destination, and volume of soils generated from the project site. The contractor is responsible for preparing a daily field report for distribution to the Owner and Environmental Consultant that identifies the amount of soil excavated, stockpiled, and/or transported off site and daily tonnage for each respective soil disposition. All soil excavation, handling, and disposal will be documented in these daily field reports by the contractor, and all field screening, soil sampling, chemical analyses and disposal receipts shall be documented in a summary report to be furnished to the Owner. The following information must be submitted to the Environmental Consultant for all subsurface work:

- Company performing work.
- Brief description and purpose of the subsurface work.
- Attachment A consisting of original signatures of all field personnel indicating that they have read and understood the content of this Plan.

- Documentation of the locations (aerial and vertical extents) where work was conducted, and any impacted media encountered. A photo-documentation log of the field work and survey or high accuracy GPS data is highly recommended.
- Documentation (including photographs, as appropriate) of the location of, method of collection, and analytical results of any samples collected and analyzed. Chain-of-custody documentation should also be retained with the analytical data.
- If any impacted media is stored on-site, dates and methods of storage.
- Disposition of any impacted media, including permit and disposal receipts, as appropriate. For any impacted media that is excavated and placed back on site, the date, location (both map and high accuracy GPS coordinates), volume of placement and confirmation of approval of onsite placement from Environmental Consultant (who contacted, date and time of contact and approval) as well as photo-documentation of the placed soil is required.

Based on these records, a post-development Plan may be prepared.

4.0 WATER MANAGEMENT

Previous investigations at the subject site indicate ground water to be approximately between 25 and 35 feet below ground surface. Firms conducting any excavation work or trenching should be prepared to encounter ground water (which may or may not be impacted). Additionally, surface water has the possibility of collecting in subsurface work areas and becoming impacted by residual soil contamination. Any water present during subsurface work will need to be managed as described in this section.

4.1 Managing Removed Water

Any dewatering will require management using one of the following methods:

- Above-ground management in a temporary holding vessel prior to disposal. Temporary holding vessels prior to disposal may consist of a 55-gallon drum, a small above-ground storage tank (AST), or large ASTs (such as Baker or Frac-Tanks), or other suitable storage vessels, depending on the amount of water to be removed. During the dewatering process, care should be taken to minimize the uptake of soil and sediment.
- Direct transfer to a truck designed and permitted to transport such wastes.
- Disposal into a sewer system, *if allowed*, must be pre-approved by City of Portland Bureau of Environmental Services and pretreatment may be required.

Dewatered fluids may require sampling and testing, dependent upon the disposal method(s) to be used. Additionally, sampling can be conducted to show that dewatered fluids are not impacted (and can be disposed in an agency approved manner). Contact the Environmental Consultant to ensure correct sampling protocol and methods are used.

4.2 Record-Keeping for Removed Water

The following information must be submitted to the Environmental Consultant for each batch of water:

- Company performing work.
- Batch Identification.
- Batch laboratory results.
- Documentation of approval for discharge or waste manifest/receipt of trucking company.
- Date discharged/transported.
- Total gallons discharged/transported.

Once work is complete, this information will be summarized for all occurrences and submitted to the appropriate agencies by the Environmental Consultant.

Table 2 - Summary of Analytical Data, Soil

Location ID		SS01			SS02			SS03				SS04			SS05			SS06			SS07			
Sample ID		SS01/2-3	SS01/5	SS01/10	SS02/2	SS02/5	SS02/10	SS03/1	SS03/2	SS03/5	SS03/10	SS04/2	SS04/5	SS04/10	SS05/2	SS05/5	SS05/9.75	SS06/2	SS06/5	SS06/9.5	SS07/2	SS07/5	SS07/10	SS08/2
Date Sampled		10/16/2020	10/16/2020	10/16/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/14/2020	10/14/2020	10/14/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/14/2020
Depth Sampled (feet)		2	5	10	2	5	10	1	2	5	10	2	5	10	2	5	9.75	2	5	9.5	2	5	10	2
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		Former Photo Development Area			Former Spray Paint Booth			NE Quadrant of Building				NW Quadrant of Building (Reported Former Foundry)			NW Quadrant of Building (Reported Former Foundry) (Middle)			NW Quadrant of Building (Reported Former Foundry) (Southermost)			Proximal to Former Floor Drain (Based on Plumbing Records), SW Quadrant of Building			Proximal to
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Metals																								
Arsenic	c, nv	11.9	14.30	5.16	8.95	12.20	6.80	--	7.80	--	--	5.01	--	--	7.75	--	--	12.7	8.36	--	9.83	8.41	--	10.1
Beryllium	c, nv	<1 (ND)	--	--	<1 (ND)	--	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 ND J	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)
Cadmium	nc, nv	4.23	--	--	<1 (ND)	--	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)
Chromium (III)	nc, nv	29.4	--	--	22.1	--	--	--	20.1	--	--	17.1	--	--	18.6	--	--	21.1	--	--	20	--	--	17.3
Copper	nc, nv	2180	--	--	33.9	--	--	--	<25 (ND)	--	--	<25 (ND)	--	--	<25 (ND)	--	--	<25 (ND)	--	--	111	--	--	25.4
Lead	NA, nv	259	29.30	--	14.1	--	--	--	38.7	12.8	--	18.9	--	--	12.7	--	--	12.7	--	--	47.2	11.90	--	13.5
Mercury	nc, nv	<1 (ND)	--	--	<1 (ND)	--	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)
Nickel	c, nv	68.1	--	--	11.8	--	--	--	12.6	--	--	9.6	--	--	11	--	--	16.6	--	--	15.3	--	--	18.9
Selenium	nc, nv	<1 (ND)	--	--	<1 (ND)	--	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)
Silver	nc, nv	2.97	--	--	<1 (ND)	--	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)	--	--	<1 (ND)
Semivolatile Organic Constituents																								
Polychlorinated biphenyls (Total PCBs)	c, v	0.02	--	--	<0.02 (ND)	--	--	0.15	--	--	--	<0.02 (ND)	--	--	<0.02 (ND)	--	--	<0.02 (ND)	--	--	<0.02 (ND)	--	--	<0.02 (ND)
Polycyclic Aromatic Hydrocarbons																								
Acenaphthene	nc, v	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	<0.01 (ND) ht	--	<0.01 (ND)
Anthracene	nc, v	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.023	<0.01 (ND) ht	--	<0.01 (ND)
Benzo[a]anthracene	c, v	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.16	<0.01 (ND) ht	--	<0.01 (ND)
Benzo[a]pyrene (BaP equivalents)	c, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.21	<0.01 (ND) ht	--	<0.01 (ND)
Benzo[b]fluoranthene	c, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.23	<0.01 (ND) ht	--	<0.01 (ND)
Benzo[k]fluoranthene	c, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.081	<0.01 (ND) ht	--	<0.01 (ND)
Chrysene	c, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.22	<0.01 (ND) ht	--	<0.01 (ND)
Dibenz[a,h]anthracene	c, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.035	<0.01 (ND) ht	--	<0.01 (ND)
Fluoranthene	nc, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.25	<0.01 (ND) ht	--	<0.01 (ND)
Fluorene	nc, v	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	<0.01 (ND) ht	--	<0.01 (ND)
Indeno[1,2,3-cd]pyrene	c, nv	<0.05 (ND)	--	--	<0.01 (ND)	--	--	0.056	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.14	<0.01 (ND) ht	--	<0.01 (ND)
Pyrene	nc, v	<0.05 (ND)	--	--	<0.01 (ND)	--	--	<0.05 (ND)	--	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	<0.01 (ND)	--	--	0.34	<0.01 (ND) ht	--	<0.01 (ND)
Total Petroleum Hydrocarbons																								
Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	130	<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)	<20 (NP)
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	950x	<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)	<50 (NP)
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	1500	<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)	<250 (NP)

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
 RAO = Remedial Action Objective.
 <# (ND) = not detected at or above the laboratory method reporting limit shown.
 -- = 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 primary and/or secondary RAOs, as applicable.
 (Y) indicates analyte not detected, but detection limit is above the RAO and/or background concentration.

Table 2 - Summary of Analytical Data, Soil

Location ID		SS08		B01																	B02	
Sample ID	SS08/5	SS08/6.5	B01/1.0	B01/2.5	B01/5	B01/10	B01/15	B01/18.5	B01/25	B01/30	B01/2	B01/5	B01/10	B01/15	B01/20	B01/25	B01/30	B01/34	B01/40	B01/45	B01/50	B02/32
Date Sampled	10/14/2020	10/14/2020	9/13/2019	9/13/2019	9/13/2019	9/13/2019	9/13/2019	9/13/2019	9/13/2019	9/13/2019	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/18/2020	11/19/2020
Depth Sampled (feet)	5	6.5	1	2.5	5	10	15	18.5	25	30	2	5	10	15	20	25	30	34	40	45	50	32
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		Floor Drain, SE Quadrant of Building					Suspected Source Area										Suspected Source Area					Sidewalk East of Building (up-gradient location)
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Metals																						
Arsenic	c, nv	7.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (III)	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	NA, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Constituents																						
Polychlorinated biphenyls (Total PCBs)	c, v	--	--	--	--	--	--	--	--	--	<0.02 (ND)	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons																						
Acenaphthene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene (BaP equivalents)	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz[a,h]anthracene	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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)
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)
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)

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
 RAO = Remedial Action Objective.
 <# (ND) = not detected at or above the laboratory method reporting limit shown.
 -- = 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 primary and/or secondary RAOs, as applicable.
 (Y) indicates analyte not detected, but detection limit is above the RAO and/or background concentration.

Table 2 - Summary of Analytical Data, Soil

Location ID	B03		B04	B05	B06	B07		COMP01	GS01	GS02	GS03	GS04	GS05	GS06	GS07	GS08	GS09	GS10	GS11	GS12	GS13	GS14	
Sample ID	B03/33	B03/53	B04/35	B05/35	B06-4.5	B07-2	B07-5	COMP01-31S-10	GS01-WW-2.5	GS02-1F-F-6.75	GS03-SW-1	GS04-3B-F-9.5	GS05-NW-7.5	GS06-WW-7.5	GS07-EW-7.5	GS08-SW-7.5	GS09-6D-6.5	GS10-SWCOL-4	GS11-SW-4	GS12-2B-F-5.5	GS13-SW-4	GS14-WW-3	
Date Sampled	11/17/2020	11/17/2020	11/19/2020	11/19/2020	8/26/2021	12/20/2021	12/21/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/26/2021	8/26/2021	8/26/2021	8/26/2021	8/26/2021	8/26/2021	
Depth Sampled (feet)	33	53	35	35	4.5	2	5	10	2.5	6.75	1	9.5	7.5	7.5	7.5	7.5	6.5	4	4	5.5	4	3	
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	
Location	Proximal to Northern Site Boundary		Proximal to Western Site Boundary	Driveway between NW and SW Quadrants of Building	Horizontal boring, 4.5 feet below floor, 6-feet horizontal into the wall.	12' West of Catch Basin	12' West of Catch Basin	Sample to profile high VOC soil for disposal	West wall @ 1D and 1E	Floor @ 1F	South wall @ 3A	Floor @ 3B	North wall @ 3B	West wall @ 3B	East wall @ 4B	South wall @ 3A	Floor @ 6D	East wall @ SW Column @5C	South wall @ 5A	Floor @ 2B	South wall @ 5A	West wall @ 1A	
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	
Metals																							
Arsenic	c, nv	--	--	--	--	9.15	6.86	13.80	11.0	--	--	--	7.81	10.8	10.7	8.61	7.47	9.46	10.10	9.82	9.72	12.40	10.40
Beryllium	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (III)	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	NA, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.10	--	--	--	--
Mercury	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Constituents																							
Polychlorinated biphenyls (Total PCBs)	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons																							
Acenaphthene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene (BaP equivalents)	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz[a,h]anthracene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons																							
Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<5 (ND)	<5 (ND)	<5 (ND)	900	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	3100	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (ND)	<50 (ND)	<50 (ND)	380 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	120 x	<50 (ND)	<50 (ND)	1400 x	<50 (ND)	<50 (ND)	<50 (ND)
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (ND)	<250 (ND)	<250 (ND)	420	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	2800	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
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 -- = 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 primary and/or secondary RAOs, as applicable.
 (Y) indicates analyte not detected, but detection limit is above the RAO and/or background concentration.

Table 2 - Summary of Analytical Data, Soil

Location ID	GS15	GS16	GS17	GS18	GS19	GS20	GS21	GS22	GS23	GS24	GS25	GS26	GS27	GS28	GS29	GS30	GS31	GS32	GS33	GS34	GS35	GS36	
Sample ID	GS15-6B-F-6.5	GS16-8B-F-6	GS17-SW-1.5	GS18-SW-1.5	GS19-EW-1.5	GS20-10B-F-3.5	GS21-12B-F-3.5	GS22-12E-F-3.5	GS23-SCCOL-2.5	GS24-11-F-6	GS25-WW-2.5	GS26-4J-F-5.5	GS27-NW-3	GS28-NW-1.5	GS29-6H-W-1	GS30-NW-4.5	GS31-2H-F-10.5	GS32-WW-7.5	GS33-NW-8.5	GS34-NWCOL-7.5	GS35-10J-F-3.5	GS36-13K-F-3.5	
Date Sampled	8/26/2021	8/27/2021	8/27/2021	8/27/2021	8/27/2021	8/27/2021	8/27/2021	8/27/2021	8/27/2021	8/30/2021	8/30/2021	8/30/2021	8/30/2021	8/30/2021	8/30/2021	8/30/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	
Depth Sampled (feet)	6.5	6	1.5	1.5	1.5	3.5	3.5	3.5	2.5	6	2.5	5.5	3	1.5	1	4.5	10.5	7.5	8.5	7.5	3.5	3.5	
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	
Location	Floor @ 6B	Floor @ 8B	South wall @ 10A	South wall @ 14A	East Wall @ 14C	Floor @ 10B	Floor @ 12B	Floor @ 12E	South base of south center column @ 9C	Floor @ -1I	West wall @ -1I	Floor @ 4J	North wall @ -1K	North wall @ 4K	North wall @ 6H	North wall @ 7J	Floor @ 2H	West wall @ -1H & 1H	North wall @ 1H	West base of NW column @ 3I	Floor @ 10J	Floor @ 13K	
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	
Metals																							
Arsenic	c, nv	8.51	8.99	4.73	4.38	6.42	12.90	8.69	9.32	9.36	8.57	12.60	8.66	12.00	5.67	6.26	11.2	6.01	7.02	6.37	6.19	10.30	4.42
Beryllium	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (III)	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29.6	--	--	--	--	--	--
Copper	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	NA, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11.00	--	--	--	--	--	--
Mercury	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1 (ND)	--	--	--	--	--	--
Nickel	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1 (ND)	--	--	--	--	--	--
Semivolatile Organic Constituents																							
Polychlorinated biphenyls (Total PCBs)	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.198	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons																							
Acenaphthene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Anthracene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Benzo[a]anthracene	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Benzo[a]pyrene (BaP equivalents)	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Benzo[b]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Benzo[k]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Chrysene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.053	--	--	--	--	--	--
Dibenz[a,h]anthracene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Fluoranthene	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Fluorene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.05 (ND)	--	--	--	--	--	--
Pyrene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2	--	--	--	--	--	--
Total Petroleum Hydrocarbons																							
Generic Gasoline (GRO)	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	37	81	150	<5 (ND)	<5 (ND)
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	410 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	62 x	3800 x	190	460	870	880	<50 (ND)	<50 (ND)
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	1200	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	14000	<250 (ND)	410	650	1200	<250 (ND)	<250 (ND)

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
 RAO = Remedial Action Objective.
 <# (ND) = not detected at or above the laboratory method reporting limit shown.
 -- = 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 primary and/or secondary RAOs, as applicable.
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Table 2 - Summary of Analytical Data, Soil

Location ID	GS37	GS38	GS39	GS40	GS41	GS42	GS43	GS44	GS45	GS46	GS47	GS48	GS49	GS50	GS51	GS52	GS53	GS54	GS55	GS56	GS57	GS58	
Sample ID	GS37-5H-F-4.5	GS38-13I-F-3.5	GS39-15F-2.5	GS40-15J-F-2.5	GS41-8K-W-1.5	GS42-12K-W-1.0	GS43-15K-W-1.0	GS44-14F-W-1.0	GS45-15H-NECOL-1.0	GS46-13H-EP-W-1.0	GS47-8H-EP-W-2.5	GS48-IG-WW-10.5	GS49-IG-WW-8	GS50-IF-SW-10.5	GS51-IF-SW-8	GS52-IF-SW-13.5	GS53-2G/3G-EW-11	GS54-2G/3G-EW-8.5	GS55-11/21-NW-10.5	GS56-11/21-NW-7	GS57-13I-F-4	GS58-6K-F-10	
Date Sampled	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/7/2021	9/8/2021	9/8/2021	9/8/2021	9/8/2021	
Depth Sampled (feet)	4.5	3.5	2.5	2.5	1.5	1	1	1	1	1	2.5	10.5	8	10.5	8	13.5	11	8.5	10.5	7	4	10	
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	
Location	Floor @ 5H	Floor @ 13I	Floor @ 15F	Floor @ 15J	8K North Wall	12K North Wall	North Wall @ 15K	East Wall @ 14F	East base of NE Column @ 15H	Base of EP @ 13H	Base of EP @ 8H	West Wall of Underpass Excavation @ -1G	West Wall of Underpass Excavation @ -1G	South Wall of Underpass Excavation @ 1F	South Wall of Underpass Excavation @ 1F	Floor of Underpass Excavation @ 1G	East Wall of Underpass Excavation @ 2G-3G	East Wall of Underpass Excavation @ 2G-3G	North Wall of Underpass Excavation @ 11-21	North Wall of Underpass Excavation @ 11-21	NE Wall @ 13I	South Floor @ 6K	
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	
Metals																							
Arsenic	c, nv	11.20	4.87	6.81	8.53	3.28	5.87	4.99	5.56	4.39	6.16	8.98	5.52	8.86	3.69	7.11	3.29	5.03	7.62	6.08	7.93	5.66	4.04
Beryllium	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (III)	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	NA, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Constituents																							
Polychlorinated biphenyls (Total PCBs)	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons																							
Acenaphthene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	c, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene (BaP equivalents)	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz[a,h]anthracene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	nc, v	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons																							
Generic Gasoline (GRO)	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	14	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	74	13	<5 (ND)	<5 (ND)	<5 (ND)	7.6
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (ND)	<50 (ND)	<50 (ND)	100 x	6700 x	<50 (ND)	<50 (ND)	<50 (ND)	80 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	1400	110	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	16000	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	1800	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
 RAO = Remedial Action Objective.
 <# (ND) = not detected at or above the laboratory method reporting limit shown.
 -- = 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 primary and/or secondary RAOs, as applicable.
 (Y) indicates analyte not detected, but detection limit is above the RAO and/or background concentration.

Table 2 - Summary of Analytical Data, Soil

Location ID	GS59	GS60	GS61	GS62	GS63	GS64	GS65	GS66	GS67	GS68	GS69	GS70	GS71	GS72	GS73	VP1	SG12		
Sample ID	GS59-6K-NW-6.5	GS60-6H-F-6	GS61-9K-NW-3	GS62-6K-SW-8	GS63-7I-F-6	GS64-13K/14K-F-4	GS65-15J-F-5	GS66-4F-SW-2.5	GS67-8F-SW-2	GS68-9F-F-4	GS69-12F-SW-2	GS70-13F-F-4	GS71-1F-F-2	GS72-3F-F-1.5	GS73-2H-F-1.7	VP1-15'	SG12-1	SG12-10	
Date Sampled	9/8/2021	9/8/2021	9/8/2021	9/8/2021	9/8/2021	9/8/2021	9/8/2021	9/10/2021	9/10/2021	9/10/2021	9/10/2021	9/10/2021	9/27/2021	9/27/2021	9/27/2021	9/24/2021	10/20/2021	10/20/2021	
Depth Sampled (feet)	6.5	6	3	8	6	4	5	2.5	2	4	2	4	2	1.5	1.7	15	1	10	
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	
Location	North Wall @ 6K	Floor @ 6H	Below red tile with big backfill @ 4K	Swal @ 6K	7J Floor @ 7J	Floor @ 13K / 14K	Floor @ 15J	South Wall EP @ 4F	South Wall EP @ 8F	Floor @ 9F	South Wall EP @ 12F	Below EP @ 13F	South header trench @ 4F	-3F West header trench	-2H North header trench	Deep soil gas probe SG14 located at 2H.	Soil gas well SG12		
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)	mg/Kg (ppm)	
Metals																			
Arsenic	c, nv	9.44	7.31	4.03	4.30	8.74	7.22	10.50	13.10	11.10	10.10	4.23	11.50	4.82	4.60	4.81	2.11	--	--
Beryllium	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	nc, nv	--	--	--	<1 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (III)	nc, nv	--	--	--	24.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	nc, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	NA, nv	--	--	--	7.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	nc, nv	--	--	--	<1 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	c, nv	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	nc, nv	--	--	--	<1 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	nc, nv	--	--	--	<1 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organic Constituents																			
Polychlorinated biphenyls (Total PCBs)	c, v	--	--	--	0.036	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons																			
Acenaphthene	nc, v	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	nc, v	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	c, v	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene (BaP equivalents)	c, nv	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	c, nv	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	c, nv	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	c, nv	--	--	--	0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz[a,h]anthracene	c, nv	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	nc, nv	--	--	--	0.063	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	nc, v	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	c, nv	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	nc, v	--	--	--	<0.05 (ND)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons																			
Generic Gasoline (GRO)	nc, v	<5 (ND)	<5 (ND)	6.1	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	6.8	<5 (ND)
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (ND)	<50 (ND)	120 x	3500 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	390 x	<50 (ND)
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	11000	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	760	<250 (ND)

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
 RAO = Remedial Action Objective.
 <# (ND) = not detected at or above the laboratory method reporting limit shown.
 -- = 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 primary and/or secondary RAOs, as applicable.
 (Y) indicates analyte not detected, but detection limit is above the RAO and/or background concentration.

Table 2 - Summary of Analytical Data, Soil

Location ID	Maximum Soil Concentration (detected)	Soil Matrix Cleanup Level	ODEQs Screening-Level Risk-Based Concentrations SLRBCs' (Soil)	Background Concentrations (Regional Default)	Clean Fill Screening Levels or Background Concentrations (as applicable)	Exceeds ODEQ SLRBCs and/or Background Concentrations (metals) or Clean Fill Screening	
Sample ID							
Date Sampled							
Depth Sampled (feet)							
Sampled By							
Location	Portland Basin	TRUE OR Y FALSE OR N					
Constituent of Interest	Note	mg/Kg (ppm)					
Volatile Organic Constituents							
Benzene	c, v	0.034	NE	0.023	---	0.0093	Y
Bromodichloromethane	c, v	<0.25 (ND)	NE	0.002	---	0.0025	(Y)
Bromoform	c, v	<0.25 (ND)	NE	0.046	---	0.084	(Y)
Bromomethane	nc, v	<2.5 (ND)	NE	0.083	---	0.098	(Y)
Carbon tetrachloride	c, v	<0.25 (ND)	NE	0.013	---	0.028	(Y)
Chlorobenzene	nc, v	<0.25 (ND)	NE	5.8	---	6.5	N
Chlorodibromomethane (dibromochloromethane)	c, v	<0.25 (ND)	NE	0.0024	---	0.0033	(Y)
Chloroethane (ethyl chloride)	nc, v	<2.5 (ND)	NE	310	---	320	N
Chloroform	c, v	<0.25 (ND)	NE	0.0034	---	0.0033	(Y)
Chloromethane	nc, v	<2.5 (ND)	NE	2.2	---	2.2	(Y)
1,2-Dichlorobenzene	nc, v	<0.25 (ND)	NE	36	---	70	N
1,4-Dichlorobenzene	c, v	<0.25 (ND)	NE	0.057	---	0.081	(Y)
1,1-Dichloroethane	c, v	<0.25 (ND)	NE	0.044	---	0.037	(Y)
1,1-Dichloroethene	nc, v	<0.25 (ND)	NE	6.7	---	11	N
cis-1,2-Dichloroethene	nc, v	<0.25 (ND)	NE	0.63	---	1.2	N
trans-1,2-Dichloroethene	nc, v	<0.25 (ND)	NE	7	---	2.5	N
Dichloromethane	c, v	<2.5 (ND)	NE	0.14	---	0.038	(Y)
EDB (1,2-dibromoethane)	c, v	<0.25 (ND)	NE	0.00012	---	0.00081	(Y)
EDC (1,2-dichloroethane)	c, v	<0.25 (ND)	NE	0.0028	---	0.0014	(Y)
Ethylbenzene	c, v	<0.25 (ND)	NE	0.22	---	0.16	(Y)
MTBE (methyl t-butyl ether)	c, v	<0.25 (ND)	NE	0.11	---	0.092	(Y)
Naphthalene	c, v	0.44	NE	0.077	---	0.087	Y
iso-Propylbenzene (cumene)	nc, v	<0.25 (ND)	NE	96	---	85.2	N
Tetrachloroethene (PCE)	c, v	0.5	NE	0.46	---	2.4	Y
Toluene	nc, v	0.11	NE	83	---	200	N
1,1,1-Trichloroethane	nc, v	<0.25 (ND)	NE	190	---	400	N
1,1,2-Trichloroethane	c, v	<0.25 (ND)	NE	0.0063	---	0.0046	(Y)
Trichloroethene	NA, v	0.93	NE	0.013	---	0.02	Y
Trichlorofluoromethane (Freon 11)	nc, v	<2.5 (ND)	NE	61	---	190	N
1,2,4-Trimethylbenzene	nc, v	4.5	NE	10	---	16	N
1,3,5-Trimethylbenzene	nc, v	2.3	NE	11	---	92	N
Vinyl chloride	c, v	<0.25 (ND)	NE	0.00057	---	0.00051	(Y)
Xylenes	nc, v	<0.25 (ND)	NE	23	---	25	N

Table 2 - Summary of Analytical Data, Soil

Location ID	Sample ID	Date Sampled	Depth Sampled (feet)	Sampled By	Location	Maximum Soil Concentration (detected)	Soil Matrix Cleanup Level	ODEQs Screening-Level Risk-Based Concentrations SLRBCs' (Soil)	Background Concentrations (Regional Default)	Clean Fill Screening Levels or Background Concentrations (as applicable)	Exceeds ODEQ SLRBCs and/or Background Concentrations (metals) or Clean Fill Screening
Constituent of Interest	Note	mg/Kg (ppm)									
Metals											
Arsenic	c, nv	13.80	NE	0.43	8.8	8.8	Y				
Beryllium	c, nv	<1 (ND)	NE	160	2	2	N				
Cadmium	nc, nv	<1 (ND)	NE	78	0.63	0.63	(Y)				
Chromium (III)	nc, nv	24.6	NE	120000	76	76	N				
Copper	nc, nv	111	NE	3100	34	34	Y				
Lead	NA, nv	47.2	NE	30	79	28	Y				
Mercury	nc, nv	<1 (ND)	NE	23	0.23	0.23	(Y)				
Nickel	c, nv	18.9	NE	1500	47	47	N				
Selenium	nc, nv	<1 (ND)	NE	---	2	2	N				
Silver	nc, nv	<1 (ND)	NE	390	0.82	0.82	(Y)				
Semivolatile Organic Constituents											
Polychlorinated biphenyls (Total PCBs)	c, v	0.036	NE	0.23	---	0.2	N				
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	nc, v	<0.05 (ND)	NE	770	---	29	N				
Anthracene	nc, v	0.023	NE	8200	---	29	N				
Benzo[a]anthracene	c, v	0.16	NE	1.1	---	0.15	Y				
Benzo[a]pyrene (BaP equivalents)	c, nv	0.21	NE	0.11	---	0.015	Y				
Benzo[b]fluoranthene	c, nv	0.23	NE	1.1	---	0.15	Y				
Benzo[k]fluoranthene	c, nv	0.08	NE	11	---	1.1	N				
Chrysene	c, nv	0.51	NE	110	---	14	N				
Dibenz[a,h]anthracene	c, nv	0.035	NE	0.11	---	0.015	Y				
Fluoranthene	nc, nv	0.25	NE	2400	---	29	N				
Fluorene	nc, v	<0.05 (ND)	NE	770	---	29	N				
Indeno[1,2,3-cd]pyrene	c, nv	0.14	NE	1.1	---	0.15	N				
Pyrene	nc, v	0.34	NE	1800	---	1700	N				
Total Petroleum Hydrocarbons											
Generic Gasoline (GRO)	nc, v	3100	80	31	---	---	Y				
Generic Diesel / Heating Oil (DRO)	nc, v	3500	500	1100	---	---	Y				
Generic Mineral Insulating Oil (RRO)	nc, nv	11000	500	2800	---	---	Y				

Notes:
 mg/Kg = milligram per kilogram or parts per million (ppm).
 RAO = Remedial Action Objective.
 <# (ND) = not detected at or above the laboratory method reporting limit shown.
 --- = 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 primary and/or secondary RAOs, as applicable.
 (Y) indicates analyte not detected, but detection limit is above the RAO and/or background concentration.

Table 4 - Summary of Analytical Data, Ground Water Reconnaissance and Off-Site Monitoring Wells

Location ID	B01	B02	B03	B04	B05	Quality Control					MW-12-50	MW-13-50	MW-14-45	Maximum Ground Water Concentration (note including QC samples)	ODEQs Screening-level Risk-Based Concentrations (SLRBCs) ¹	Background Concentrations (metals)	Exceeds Background Concentrations (metals)?	COPC?		
Sample ID	B01/GW49	B02/GW41	B03/GW43.5	B04/GW	B05/GW42	B03/GW43.5	EB-PUMP	EB_CoreB	Trip Blank	Trip Blank	MW-12-50/GW45	MW-13-50/GW45	MW-14-45/GW40							
Date Sampled	11/16/2020	11/18/2020	11/17/2020	11/19/2020	11/18/2020	11/17/2020	11/17/2020	11/17/2020	11/18/2020	1/28/2021	1/28/2021	1/28/2021	1/28/2021							
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW / HAI	ENW / HAI	ENW / HAI	ENW / HAI							
Location	Center of Building (Suspected Source Area)	Sidewalk East of Building (Up gradient Loc)	Proximal to Northern Site Boundary	Proximal to Western Site Boundary	Proximal to Western Site Boundary	Field Duplicate of B03	Equipment Blank		Trip Blank	Trip Blank	NW Natural Well, West Side of SE 9th Ave 65' W of the Site	NW Natural Well, East Side of SE 8th Ave 256' W of the Site	NW Natural Well, West Side of SE 9th Ave, 327' NW of the Site							
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)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	TRUE OR Y FALSE OR N	TRUE OR Y FALSE OR N		
Volatile Organic Constituents																				
Benzene	c, v	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	240	12	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	240	0.46	NE	N	Y	
Bromodichloromethane	c, v	<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)	0.13	NE	N	(Y)	
Bromofrom	c, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<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)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	7.5	NE	N	N	
Carbon tetrachloride	c, v	<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)	0.46	NE	N	(Y)	
Chlorobenzene	nc, v	<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)	77	NE	N	N	
Chlorodibromomethane (dibromochloromethane)	c, v	<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)	0.17	NE	N	(Y)	
Chloroethane (ethyl chloride)	nc, v	<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)	21000	NE	N	N	
Chloroform	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.0	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.0	NE	N	Y	
Chloromethane	nc, v	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<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)	<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)	<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)	1.0	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.0	NE	N	N	
1,1-Dichloroethene	nc, v	<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)	280	NE	N	N	
cis-1,2-Dichloroethene	nc, v	<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)	36	NE	N	N	
trans-1,2-Dichloroethene	nc, v	<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)	360	NE	N	N	
Dichloromethane	c, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	11	NE	N	N	
EDB (1,2-dibromoethane)	c, v	<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)	0.0075	NE	N	(Y)	
EDC (1,2-dichloroethane)	c, v	<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)	0.17	NE	N	(Y)	
Ethylbenzene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	3.6	1.9	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	3.6	1.5	NE	N	Y
MTBE (methyl t-butyl ether)	c, v	<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)	14	NE	N	N	
Naphthalene	c, v	<1 (ND)	<0.4 (ND)	<1 (ND)	26	5.1	<1 (ND)	<1 (ND)	<0.4 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	26	0.17	NE	N	Y
iso-Propylbenzene (cumene)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	3.8	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	3.8	440	NE	N	N
Tetrachloroethene (PCE)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	8.1	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	8.1	12	NE	N	N
Toluene	nc, v	1.5	<1 (ND)	<1 (ND)	<1 (ND)	9.4	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	9.4	1100	NE	N	N
1,1,1-Trichloroethane	nc, v	<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)	8000	NE	N	N	
1,1,2-Trichloroethane	c, v	<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)	0.28	NE	N	(Y)	
Trichloroethene	NA, v	1.1	<1 (ND)	<1 (ND)	<1 (ND)	3.1	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	2.5	<1 (ND)	<1 (ND)	<1 (ND)	3.1	0.49	NE	N	Y
Trichlorofluoromethane (Freon 11)	nc, v	<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)	1100	NE	N	N	
1,2,4-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	1.2	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.2	54	NE	N	N
1,3,5-Trimethylbenzene	nc, v	<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)	59	NE	N	N	
Vinyl chloride	c, v	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	0.22	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	0.22	0.027	NE	N	Y
Xylenes	nc, v	<3 (ND)	<3 (ND)	<3 (ND)	5.2	1.2	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	5.2	190	NE	N	N
Metals (Total)																				
Antimony	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	<1 (ND)	NE	1	N	N		
Arsenic	c, nv	16.7	12.5	11.4	11.9	14.3	7.73	<1 (ND)	<1 (ND)	--	--	--	--	16.7	0.052	2	Y	Y		
Beryllium	c, nv	<5 (ND)	<5 (ND)	1.84	<5 (ND)	<5 (ND)	1.59	<1 (ND)	<1 (ND)	--	--	--	--	5	40	NE	N	N		
Cadmium	nc, nv	1.29	<1 (ND)	<1 (ND)	<1 (ND)	1.29	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	1.29	20	1	Y	N		
Chromium (III)	nc, nv	132	122	69.9	97.8	119	57	<1 (ND)	<1 (ND)	--	--	--	--	132	30000	1	Y	N		
Copper	nc, nv	203	169	123	137	148	103	<5 (ND)	<5 (ND)	--	--	--	--	203	800	9	Y	N		
Lead	NA, nv	42.1	33.8	15.6	20.7	42.3	11.4	<1 (ND)	<1 (ND)	--	--	--	--	42.3	15	13.3	Y	Y		
Mercury	nc, nv	<1 j	<10 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	<10 (ND)	6	0.1	(Y)	(Y)		
Nickel	c, nv	110	85.1	64.6	69.1	80.8	52.5	<1 (ND)	<1 (ND)	--	--	--	--	110	400	5.5	Y	N		
Selenium	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	<1 (ND)	NE	0.2	N	N		
Silver	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	<1 (ND)	100	1	N	N		
Thallium	nc, nv	<10 (ND)	<10 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	<10 (ND)	NE	NE	NE	N		
Zinc	nc, nv	828	246	165	199	261	133	<5 (ND)	<5 (ND)	--	--	--	--	828	NE	38	Y	N		

Table 4 - Summary of Analytical Data, Ground Water Reconnaissance and Off-Site Monitoring Wells

Location ID	B01	B02	B03	B04	B05	Quality Control					MW-12-50	MW-13-50	MW-14-45	Maximum Ground Water Concentration (note including QC samples)	ODEQs Screening-level Risk-Based Concentrations (SLRBCs) ¹	Background Concentrations (metals)	Exceeds Background Concentrations (metals)?	COPC?	
Sample ID	B01/GW49	B02/GW41	B03/GW43.5	B04/GW	B05/GW42	B03/GW43.5	EB-PUMP	EB_CoreB	Trip Blank	Trip Blank	MW-12-50/GW45	MW-13-50/GW45	MW-14-45/GW40						
Date Sampled	11/16/2020	11/18/2020	11/17/2020	11/19/2020	11/18/2020	11/17/2020	11/17/2020	11/17/2020	11/18/2020	1/28/2021	1/28/2021	1/28/2021							
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW / HAI	ENW / HAI	ENW / HAI	ENW / HAI						
Location	Center of Building (Suspected Source Area)	Sidewalk East of Building (Up gradient Loc)	Proximal to Northern Site Boundary	Proximal to Western Site Boundary	Proximal to Western Site Boundary	Field Duplicate of B03	Equipment Blank		Trip Blank	Trip Blank	NW Natural Well, West Side of SE 9th Ave 65' W of the Site	NW Natural Well, East Side of SE 8th Ave 256' W of the Site	NW Natural Well, West Side of SE 9th Ave, 327' NW of the Site						
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)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	TRUE OR Y FALSE OR N	TRUE OR Y FALSE OR N	
Metals (Dissolved)																			
Antimony		<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	--	<1 (ND)	NE	1	N	N	
Arsenic	c, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	--	<1 (ND)	0.052	2	N	(Y)	
Beryllium	c, nv	<1 (ND)	<1 (ND)	<1 (ND)	<5 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	--	<5 (ND)	40	NE	N	N	
Cadmium	nc, nv	<1 (ND)	<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 (ND)	<1 (ND)	--	--	--	--	--	<1 (ND)	30000	1	N	N	
Copper	nc, nv	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	--	--	--	--	--	<5 (ND)	800	9	N	N	
Lead	NA, nv	<1 (ND)	<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)	--	--	--	--	--	<1 (ND)	6	0.1	(Y)	N	
Nickel	c, nv	2.8	2.39	4.61	4.94	4.56	4.62	<1 (ND)	--	--	--	--	--	4.94	400	5.5	N	N	
Selenium	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	--	<1 (ND)	NE	0.2	N	N	
Silver	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	--	<1 (ND)	100	1	N	N	
Thallium	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	--	--	--	--	--	<1 (ND)	NE	NE	NE	N	
Zinc	nc, nv	14.5	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	--	--	--	--	--	<14.5 (ND)	NE	38	N	N	
Semivolatile Organic Constituents																			
Polycyclic Aromatic Hydrocarbons																			
Acenaphthene	nc, v	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	7.7	0.074	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	7.7	510	NE	N	N	
Anthracene	nc, v	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	0.086	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	0.086	>S	NE	N	N	
Benzo[a]anthracene	c, v	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	0.03	NE	N	(Y)	
Benzo[a]pyrene (BaP equivalents)	c, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	0.025	NE	N	(Y)	
Benzo[b]fluoranthene	c, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	0.25	NE	N	N	
Benzo[k]fluoranthene	c, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	2.5	NE	N	N	
Chrysene	c, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	>S	NE	N	N	
Dibenz[a,h]anthracene	c, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	0.025	NE	N	(Y)	
Fluoranthene	nc, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	>S	NE	N	N	
Fluorene	nc, v	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	0.18	0.12	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	0.18	280	NE	N	N	
Indeno[1,2,3-cd]pyrene	c, nv	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	>S	NE	N	N	
Pyrene	nc, v	<0.02 (ND)	<0.04 (ND)	<0.02 (ND)	<0.04 (ND)	<0.04 (ND)	<0.02 (ND)	<0.02 (ND)	<0.04 (ND)	--	--	--	--	<0.04 (ND)	>S	NE	N	N	
Styrene	nc, v	--	<1 (ND)	--	<1 (ND)	1.5	--	--	<1 (ND)	--	--	--	--	1.5	1200	NE	--	N	
Total Petroleum Hydrocarbons																			
Generic Gasoline (GRO)	nc, v	130	100	<100 (ND)	1500	180	<100 (ND)	<100 (ND)	<100 (ND)	--	<100 (ND)	<100 (ND)	<100 (ND)	140	1500	110	NE	N	Y
Generic Diesel / Heating Oil (DRO)	nc, v	350 x	130 x	170 x	1000 x	410 x	120 x	<50 (ND)	<50 (ND)	--	--	<50 (ND)	<50 (ND)	1200	1200	100	NE	N	Y
Generic Mineral Insulating Oil (RRO)	nc, nv	930	<250 (ND)	<250 (ND)	510	660	<250 (ND)	<250 (ND)	<250 (ND)	--	--	<250 (ND)	<250 (ND)	<250 (ND)	930	300	NE	N	Y

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

Table 3. Areas of Possible Concern

Sample Location	Media	Depth (feet)	Over Clean Fill
SS06	surface soil	2	Arsenic
SS07	surface soil	2	benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene
SS08	surface soil	2	Arsenic
B01	subsurface soil	10	Trichloroethene
B04	subsurface soil	35	Benzene
B06	subsurface soil	4.5	Arsenic
B07	subsurface soil	5	Arsenic
GS02	subsurface soil	6.75	Trichloroethene
GS03	surface soil	1	Trichloroethene
GS04	subsurface soil	9.5	Trichloroethene
GS05	subsurface soil	7.5	Arsenic
GS06	subsurface soil	7.5	Trichloroethene, arsenic
GS07	subsurface soil	7.5	Trichloroethene
GS08	subsurface soil	7.5	Trichloroethene
GS09	subsurface soil	6.5	Arsenic
GS10	subsurface soil	4	Arsenic
GS11	subsurface soil	4	Naphthalene, trichloroethene, arsenic, GRO
GS12	subsurface soil	5.5	Arsenic
GS13	subsurface soil	4	Arsenic
GS14	surface soil	3	Arsenic
GS16	subsurface soil	6	Arsenic
GS17	surface soil	1.5	Trichloroethene
GS18	surface soil	1.5	Trichloroethene
GS19	surface soil	1.5	Trichloroethene
GS20	subsurface soil	3.5	Arsenic
GS22	subsurface soil	3.5	Trichloroethene, arsenic
GS23	surface soil	2.5	Trichloroethene, arsenic
GS24	subsurface soil	6	Trichloroethene
GS25	surface soil	2.5	Trichloroethene, arsenic
GS27	surface soil	3	Arsenic
GS28	surface soil	1.5	Trichloroethene
GS29	surface soil	1	Trichloroethene
GS35	subsurface soil	3.5	Trichloroethene, arsenic
GS37	subsurface soil	4.5	Arsenic
GS38	subsurface soil	3.5	Trichloroethene
GS39	surface soil	2.5	Trichloroethene
GS43	surface soil	1	Trichloroethene
GS44	surface soil	1	Trichloroethene
GS45	surface soil	1	Trichloroethene
GS46	surface soil	1	Trichloroethene
GS47	surface soil	2.5	Arsenic
GS49	subsurface soil	8	Arsenic
GS53	subsurface soil	11	Trichloroethene, GRO, DRO
GS54	subsurface soil	8.5	Trichloroethene
GS55	subsurface soil	10.5	Trichloroethene

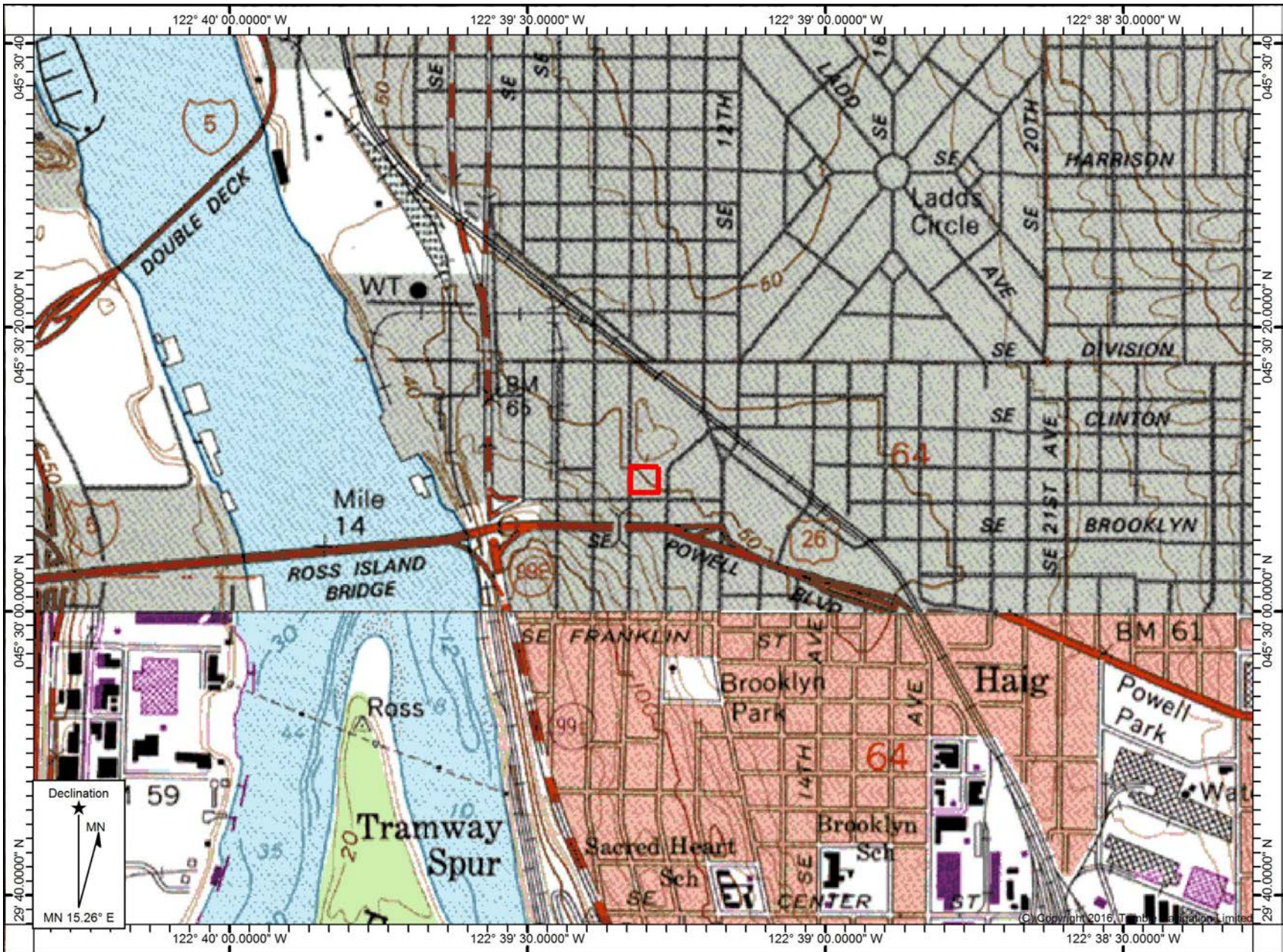
Table 3. Areas of Possible Concern

Sample Location	Media	Depth (feet)	Over Clean Fill
GS56	subsurface soil	7	Trichloroethene
GS57	subsurface soil	4	Trichloroethene
GS59	subsurface soil	6.5	Arsenic
GS61	surface soil	3	Trichloroethene
GS62	subsurface soil	8	PCE, trichloroethene, DRO, RRO
GS64	subsurface soil	4	Trichloroethene
GS65	subsurface soil	5	Trichloroethene, arsenic
GS66	surface soil	2.5	Arsenic
GS67	surface soil	2	Trichloroethene, arsenic
GS68	subsurface soil	4	Arsenic
GS69	surface soil	2	Trichloroethene
GS70	subsurface soil	4	Arsenic
GS71	surface soil	2	Trichloroethene
GS72	surface soil	1.5	Trichloroethene
GS73	surface soil	1.7	Trichloroethene
SG12	surface soil	1	Trichloroethene, RRO
B01	ground water	N/A	N/A
B02	ground water	N/A	N/A
B03	ground water	N/A	N/A
B04	ground water	N/A	N/A
B05	ground water	N/A	N/A
MW12	ground water	N/A	N/A
MW14	ground water	N/A	N/A

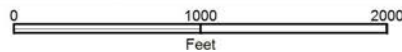
RBCs = Risk-Based Concentrations

N/A = not applicable

Figures



Name: PORTLAND
Date: Jan 1, 1990



Location: 045° 30' 09.2914" N, 122° 39' 18.3519" W
Contour Interval: 10 ft



Date Drawn: 3/15/2022
CAD File Name: 186-19002-fig1sv_map(v01)
Drawn By: JOB
Approved By: LDG

Irwin Hodson Property
2808 and 2838 SE 9th Avenue
Portland, Oregon

Site Vicinity Map

Project No.
186-19002

Figure No.

1

DRAWING NUMBER 186-19002(v01)
 DRAWN BY C. ROSEBROOK 3/15/2022
 CHECKED BY P. TRONE 3/15/2022
 APPROVED BY L. GREEN 3/15/2022

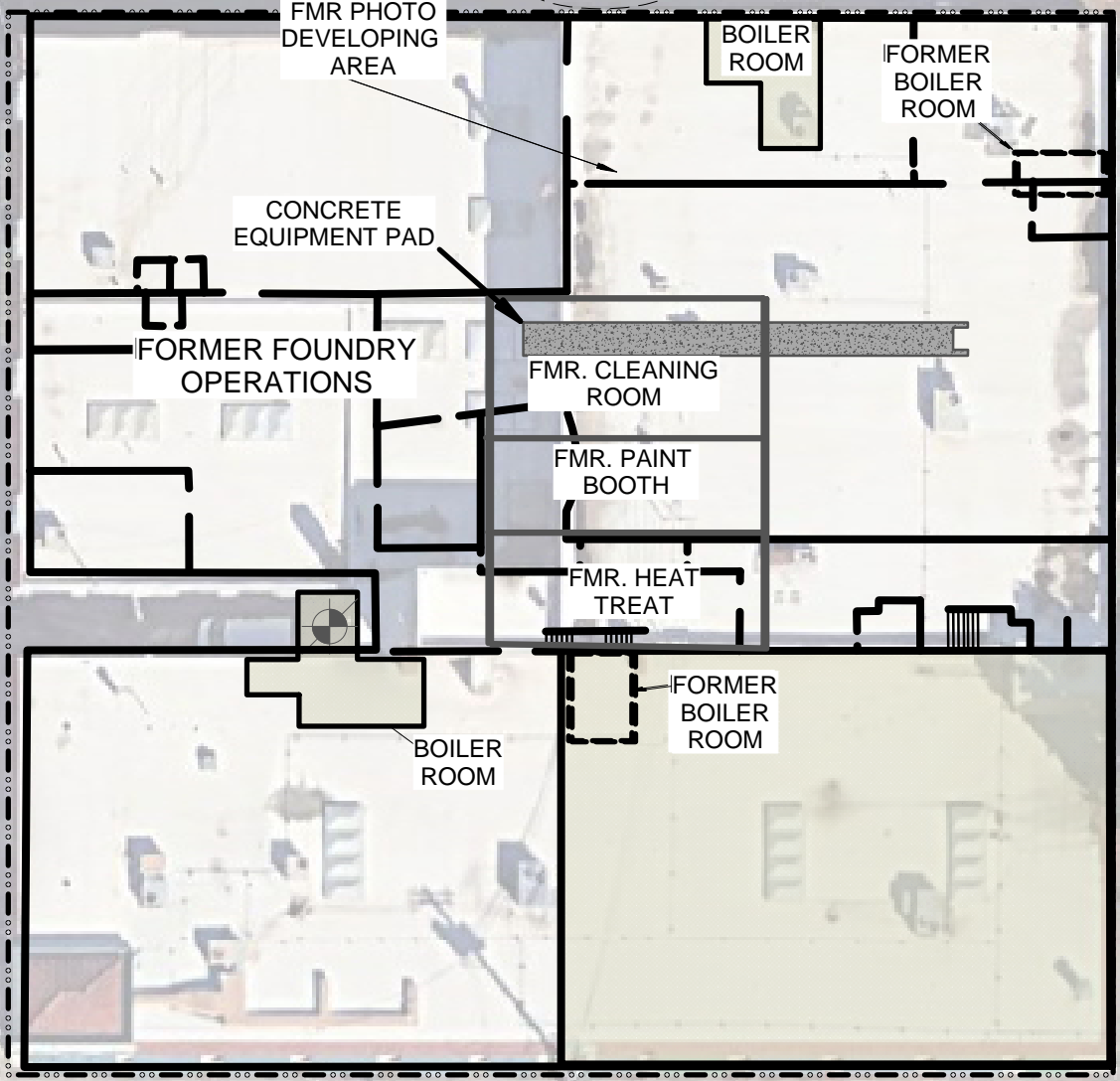
FORMER PORTLAND COKE AND GAS WORKS (PCGW) ESCI SITE NO. 1488

AREA OF DECOMMISSIONED 1,760-GALLON HOT (LUST 26-97-0130)

FERGUSON PLUMBING SUPPLY

SE CLINTON ST

PORTLAND WHOLESALE GROCERY



WAREHOUSE TOWING COMPANY

SE 9TH AVE

SE 10TH AVE

SE WOODWARD ST

ROSE CITY VET CLINIC

JACK IN THE BOX RESTURANT

CHEVRON SERVICE STATION AND WASHMAN CAR WASH

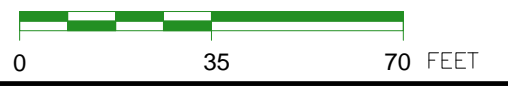
LEGEND:

- SUBJECT PROPERTY BOUNDARIES
- SUBJECT BUILDINGS
- BASEMENT AREA
- DECOMMISSIONED WATER WELL
- HOT = HEATING OIL TANK

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2018 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.

APPROXIMATE SCALE

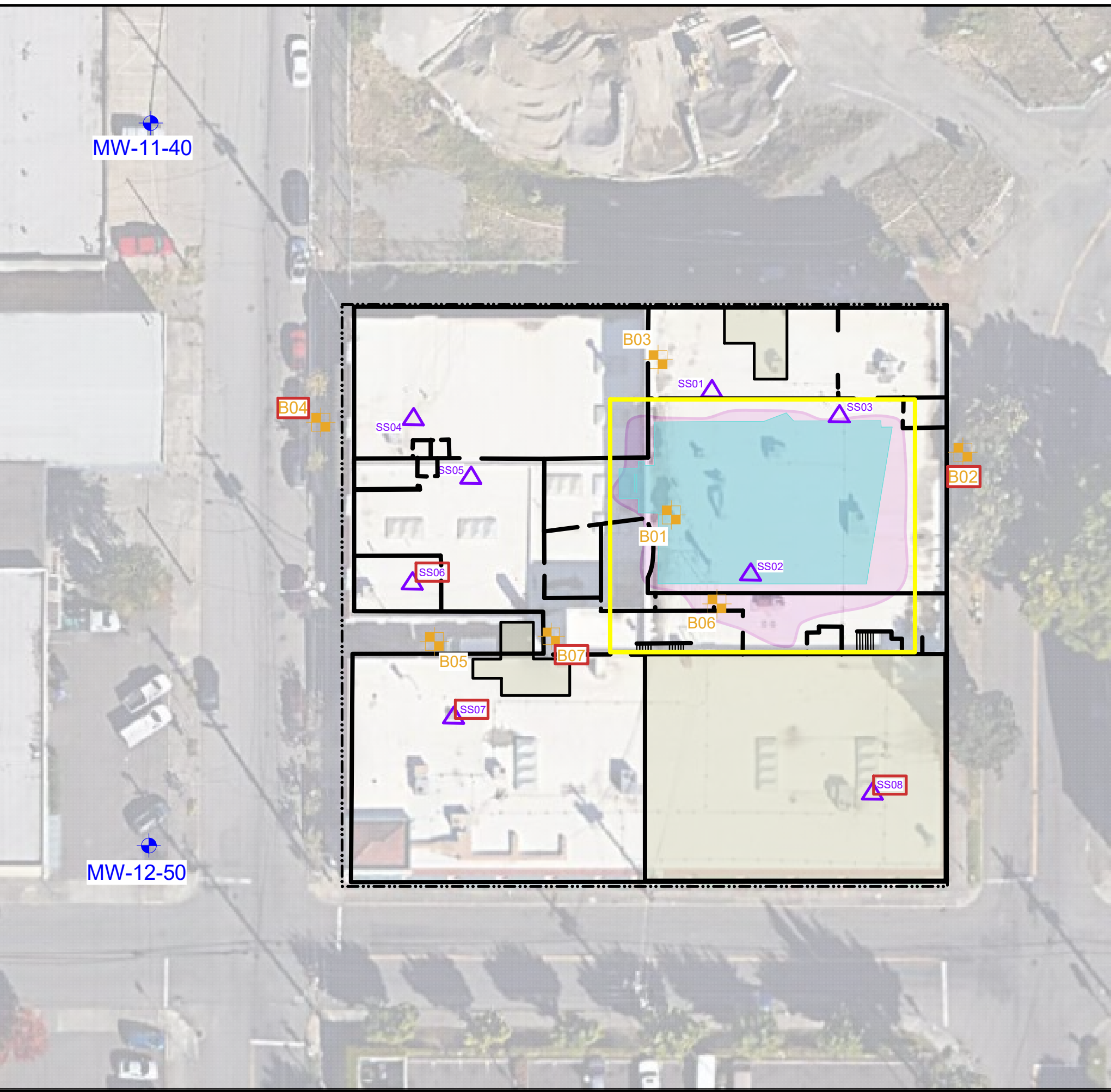


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 P: (503)452-5561, E: ENW@EVREN-NW.COM











FIGURE 2
 SITE PLAN

IRWIN HODSON PROPERTY
 2808 AND 2838 SE 9TH AVENUE
 PORTLAND, OREGON

DRAWING NUMBER 186-19002(v01)
 DRAWN BY C. ROSEBROOK [03/15/2022]
 CHECKED BY P. TRONE [03/15/2022]
 APPROVED BY L. GREEN [03/15/2022]

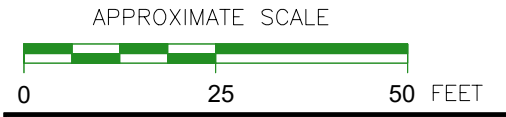


LEGEND:

-  SUBJECT PROPERTY BOUNDARIES
-  SUBJECT BUILDING / FLOOR PLAN
-  BASEMENT AREA
-  SHALLOW SOIL SAMPLE
-  ENW SOIL/ GROUND WATER BORING
-  LIKELY AREA OF RESIDUAL IMPACTED SOIL
-  REFER TO FIGURE 4
-  NW NATURAL MONITORING WELL
-  EXCAVATION BOUNDARY
-  MARKED SAMPLES WERE FOUND TO HAVE IMPACTED SOIL

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2018 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.



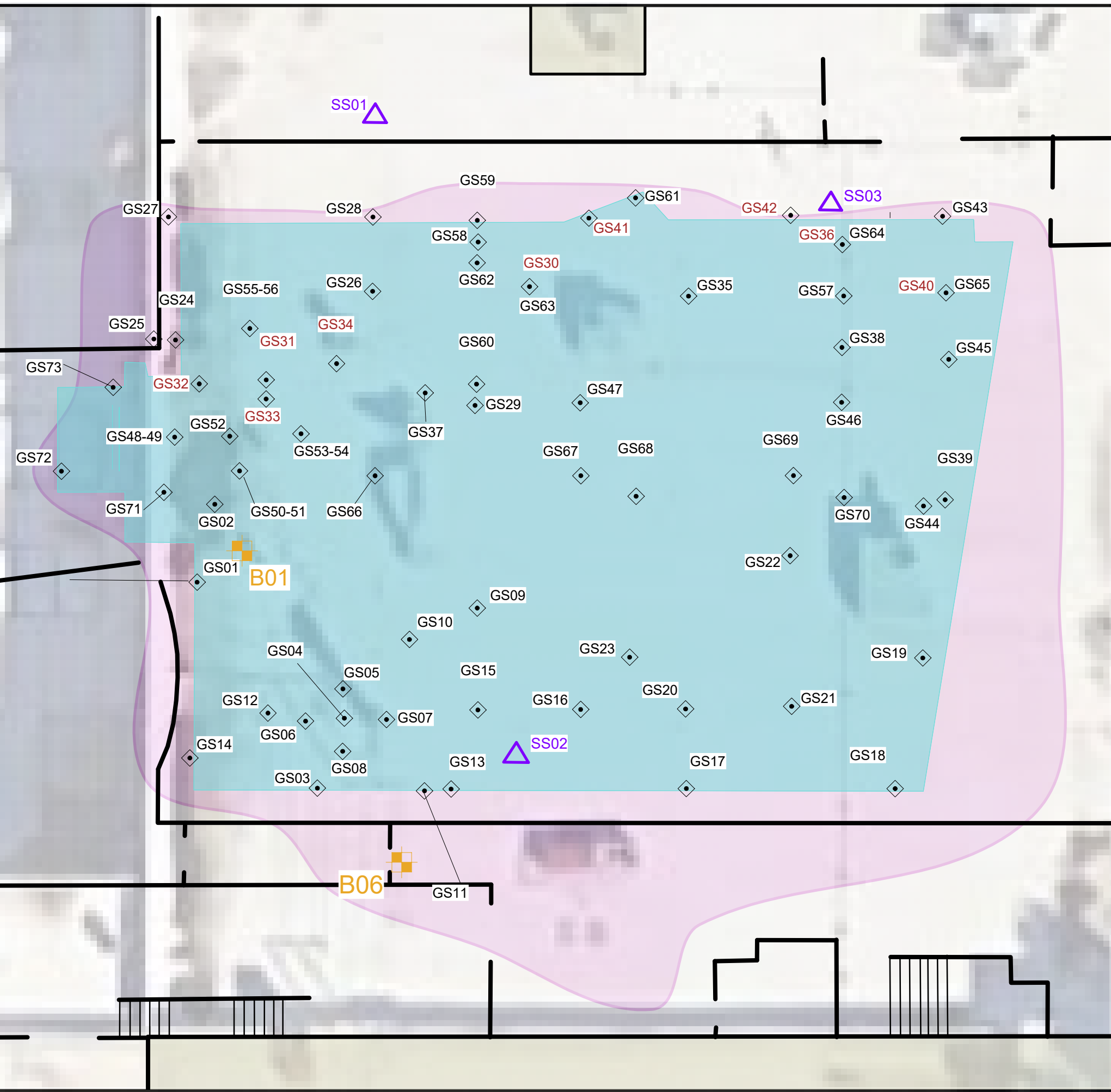
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FIGURE 3

SAMPLE LOCATION DIAGRAM - OVERVIEW

IRWIN HODSON PROPERTY
 2808 AND 2838 SE 9TH AVENUE
 PORTLAND, OREGON

DRAWN BY: C. ROSEBROOK [03/15/2022] P. TRONE [03/15/2022] L. GREEN [03/15/2022]
 CHECKED BY:
 APPROVED BY:
 DRAWING NUMBER: 186-19002(v01)

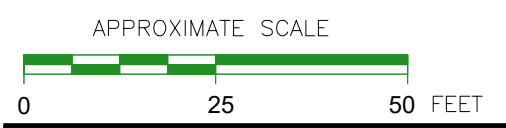


LEGEND:

- SUBJECT BUILDING / FLOOR PLAN
- BASEMENT AREA
- SHALLOW SOIL SAMPLE
- ENW SOIL/GROUND WATER BORING
- LIKELY AREA OF RESIDUAL IMPACTED SOIL
- GRAB SAMPLE LOCATION
- SOIL SUBSEQUENTLY REMOVED AT THESE LOCATIONS
- EXCAVATION BOUNDARY

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2018 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.



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FIGURE 4

SAMPLE LOCATION DIAGRAM -
 AREA OF SOIL EXCAVATION

IRWIN HODSON PROPERTY
 2808 AND 2838 SE 9TH AVENUE
 PORTLAND, OREGON

Attachment A

Acknowledgement Signature Form

Copy and use the following form to document review and understanding of the Contaminated Media Management Plan. Any person responsible for or conducting subsurface work at the site must sign this form.

Attachment B

Site Contacts

Site contacts should be reviewed and updated prior to each scope of work at the site.

Contaminated Media Management Plan

Site Contacts

Client	Environmental Consultant*
The Irwin-Hodson Co. Heather Brown Email: heatherb@ihco.com Cell: (503) 419-4597	EVREN Northwest, Inc. Lynn D. Green, C.E.G. Email: lynng@evren-nw.com Cell: (503) 849-5895

Site Project Manager*	Geotechnical Engineer*
Name: Company: Email: Cell:	Name: Company: Email: Cell:

Architect	Engineer
Name: Company: Email: Cell:	Name: Company: Email: Cell:

Contractor Office / Field Contacts	
Name: Company: Email: Cell:	Name: Company: Email: Cell:

Add additional contacts as appropriate for the scope of work. This may include subcontractors, the Oregon Department of Environmental Quality and/or the City of Portland.