State of Oregon
Department of Environmental Quality Memorandum

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To: FILE

Through: Kevin Parrett, Manager
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Northwest Region Cleanup Program

From: David Lamadrid, Project Manager
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Subject: Block 290 West, Cleanup Program No. 6507; Staff Memorandum in Support of a No Further Action Determination

This document presents the basis for the Oregon Department of Environmental Quality's (DEQ's) recommended No Further Action (NFA) determination for the Block 290 West development in Portland, Oregon (Site). As discussed in this memorandum, no residual soil contamination was identified after mass excavation of the Site for redevelopment, and residual contaminants in groundwater do not pose unacceptable risk to human health and the environment.

The proposed NFA determination meets the requirements of Oregon Administrative Rules Chapter 340 Division 122, Sections 0010 to 0140 and Oregon Revised Statute ORS 465.200 through 465.455.

The proposal is based on information documented in the administrative record for this Site. A copy of the administrative record index is presented at the end of this memorandum.

1. BACKGROUND

Site location.
The site, located at the northeast corner of NW Pettygrove Street and NW 20th Avenue (Figure 1), is described as follows:

- Current Address: 2070 NW Quimby Street, Portland, Multnomah County, Oregon
- Historical Addresses: 2050 NW Quimby Street and 1433 NW 20th Avenue
- Latitude 45.5332° North, longitude -122.6941° West
- Multnomah County Map Number (No.) 1N1E33BA, Tax Lot 00103

Site Setting.
The Site vicinity is characterized as a high-density, urban district close to downtown Portland, with a mix of recently developed mixed-use commercial/residential buildings and older commercial buildings.

The 1.3-acre Site was redeveloped in 2022 and 2023 into a seven-story, mixed-use commercial (ground floor) and residential apartment building named Slabtown Square by the developer. Five residential units are located on the ground floor. The development includes a U-shaped building, central paved courtyard, single-level below-grade parking garage, street-level parking improvements along NW Quimby Street, and very minimal landscaping. The Site is bounded by NW Quimby and Pettygrove Streets to the north and south, respectively, NW 21st Avenue to the west, and an undeveloped parcel to the east (Block 290 East).

Properties adjacent to the Site are shown in Figure 3 and developed as follows:

> North and West: multi-story, mixed use commercial and residential (apartment) buildings.
> South: single-story commercial use (restaurants).
> East: undeveloped Block 290 East parcel (planned for development of a publicly-owned park managed by Portland Parks and Recreation).

Physical Setting.

Regional Geology

The Site is situated within the Portland Basin, the Willamette Valley segment of the Puget-Willamette Lowland that extends from Puget Sound into west-central Oregon. The Site is located along the western bank of the Willamette River floodplain and east of the Tualatin Mountains (or Portland Hills), atop fine sand and silt deposited by the glacial-outburst Missoula Floods approximately 15,500 and 13,000 years ago. The flood waters left behind thick deposits of unconsolidated sediment (coarse sand to silt) where they flowed through the Portland Basin.[1]

The fine-grained flood deposits are underlain by the Miocene- to Pliocene-age Troutdale Formation, a moderately strong conglomerate rock with interbeds of siltstone, sandstone, and claystone. The Troutdale Formation ranges in thickness from 200 to 300 feet within the Portland metropolitan area. The Troutdale Formation is, in turn, underlain by basement rock consisting of the Miocene-age Columbia River Basalt Group (CRBG).

Site Geology

During Site investigations conducted between 1996 to 2006, the maximum depth explored was 70 feet below ground surface (bgs). Soils encountered consist of 30 to 32 feet of glacial flood deposits of silt, fine sand, and mixtures of both. This fine-grained unit is underlain by dense to very dense gravel with silt and sand of the Troutdale Formation.

Site Hydrogeology

The first-encountered groundwater zone is associated with the regional Troutdale Gravel Aquifer that is unconfined in the Site vicinity. Monitoring wells MW-1 through MW-4 were installed at

[1] Beeson, M.H., and others, 1991, Geologic Map of the Portland Quadrangle, Multnomah and Washington Counties, Oregon, and Clark County, Washington, Geologic Map Series GMS-75.

the Site in December 1990 to depths ranging from 64 to 67 feet bgs. Seasonal depth-to-water measurements from 1999 to 2010 ranged from 44.65 to 66.44 feet bgs.

There is not a significant groundwater gradient below the Site; however, groundwater elevation data from the monitoring wells suggest groundwater flows towards the northeast (towards the Willamette River). Groundwater is also inferred to flow towards the northeast based on ground surface topographic patterns in the area (Figure 2).

The nearest surface water body is the Willamette River located approximately 2,600 feet (approximately 0.5 mile) northeast of the Site. Groundwater beneath the Site is anticipated to discharge to the Willamette River.

Site History.
Block 290 West (Tax Lot 00103) and adjacent Block 290 East (Tax Lot 00102), collectively referred to as Block 290, share a similar site history. Block 290 was bounded by NW Quimby and Pettygrove Streets to the north and south, respectively, and NW 20th and 21st Avenues to the east and west, respectively. Block 290 was undeveloped until sometime between 1889 and 1901, when it was gradually developed with residential and commercial properties through 1944. A church occupied the southwest corner of Block 290 (i.e., southern half of Block 290 West) in the early 1900s.

Sometime between 1944 and 1950 most of the residential structures were removed and Block 290 was developed with Consolidated Auto Truck Service and Parking. The facility included at least two buildings, including a truck shop, offices, a truck-greasing building, and truck scales. In 1967, previous structures on Block 290 were removed and the block was developed with the Consolidated Freightways (CF) truck maintenance/repair facility, including a large building (43,868 square feet) spanning across both tax lots (Figure 4-1). Demolition of this historic structure occurred in 2021. Block 290 West was redeveloped in 2022 and 2023 with the existing mixed-use, commercial and residential building.

Historical underground storage tanks (USTs) associated with the former CF facility and located on the Block 290 West parcel included the following (shown in Figure 4-1):

- One 58,000-gallon diesel UST
- One 10,000-gallon diesel UST
- One 650-gallon oil UST
- One 600-gallon UST (identified as unused)
- One 550-gallon lube oil UST
- One 500-gallon waste oil UST

Excluding the waste oil UST, the other USTs were located beneath the original, pre-1967 CF building. There are no records documenting removal of these USTs.[2] The waste oil UST was located south of the larger, post-1967 CF building and was decommissioned by removal in

[2] GeoDesign, Inc., 1999, Phase I Environmental Site Assessment, Limited Asbestos Survey, and Groundwater Sampling, Consolidated Freightways Building, 2050 NW Quimby Street, Portland, Oregon, August 5.

October 1989. In addition, three designated fueling stations were located north of the original building although the specific location(s) is unknown. A sump was located near the south end of the second larger building, and a railroad spur was located at the southwest corner of the Site. Two sludge tanks were located south of the west truck shop (on the Site) and south of the east truck shop.

Several USTs (for diesel, waste oil, motor oil, antifreeze, solvent, and sludge) were installed during construction of the post-1967 CF building; however, they were all located on the Block 290 East parcel.

2. BENEFICIAL LAND AND WATER USE DETERMINATIONS

Land Use.
Based on the information provided as part of the Site investigations and groundwater monitoring, a Locality of Facility (LOF) with respect to soil was estimated as the Site boundary. The limits of the LOF include areas where soils were historically impacted by petroleum hydrocarbons from former USTs. As described below, there are known groundwater impacts below the Site; however, the source of the groundwater contamination is unknown and appears unlikely to be Site related. Therefore, the LOF is defined by historical impacts to subsurface soils beneath the Site.

The Site's land use zoning designation is Commercial/Mixed-Use 3 (CM3). CM3 is a large-scale zone intended for sites in high-capacity transit station areas, town centers, along streetcar alignments and civic corridors, and in locations close to the central city. It is intended to be an intensely urban zone and is not appropriate for sites where adjacent properties have single-dwelling residential zoning. The zone allows a wide range of commercial and residential uses.

Adjoining properties are also zoned CM3, except at the southwest corner of NW Pettygrove Street and NW 21st Avenue which is zoned Campus Institutional 2 (CI2). The adjoining property uses are shown in Figure 3. It should be noted that the planned public park on the adjoining property to the east (Block 290 East) is still currently zoned CM3, but this designation is expected to change to Open Space (OS) prior to park development.

Current land uses to the north and west, and the planned park development to the east, are reasonably likely to remain the same in the foreseeable future. The older commercial properties to the south may be redeveloped in the foreseeable future considering recent redevelopment trends in the area, but redevelopment is expected to be consistent with current CM3 zoning requirements.

Groundwater Use.
GeoDesign, Inc. (GeoDesign) completed a door-to-door survey in June 2009 of 35 properties located within the area one city block upgradient and two city blocks downgradient of the Site.[3] Responses were received for 26 of the surveyed properties. None of the properties responding to the survey reported the presence of domestic-use water wells

[3] GeoDesign, Inc., 2009, Report of Environmental Services, Con-Way, Inc. Property, 2050 Quimby Street, Portland, Oregon, LUST #26-89-0305.

A Beneficial Water Use Determination (BWUD) for the Site was completed in 2024 by True North Geotechnical.[4] The Site and surrounding properties are provided municipal water by the City of Portland. Portland's water system is supplied from two sources: Bull Run Watershed located approximately 30 miles east of downtown Portland and the Columbia South Shore Well Field located along the Columbia River in east Portland.

The Site is located in the NW ¼ of the NE ¼ of Section 33, Township 1 North, Range 1 East. True North Geotechnical performed a well search using the Oregon Water Resources Department (OWRD) Well Report Mapping tool. Search results revealed no drinking water supply wells within 1,000 feet of the Site.

DEQ expanded the well log search to include the area downgradient (northeast) of the Site and extending to the Willamette River (approximately 2,600 feet). The area included the SW ¼ of Section 28, Township 1 North, Range 1 East. No drinking water supply wells were identified. Water wells within the search area consisted of one industrial well (abandoned) and 25 dewatering wells (existing or abandoned).

Based on the lack of drinking water wells in the Site vicinity and availability of municipal drinking water, groundwater beneath the Site is not likely to be used as a drinking water source in the future.

Surface Water Use.
The Willamette River, located approximately 2,600 feet (approximately ½ mile) northeast of the Site, has current and likely future beneficial uses including fishing, recreation, and habitat for fish and benthic organisms.

3. INVESTIGATION AND CLEANUP WORK

Six USTs were formerly located beneath the original, pre-1967 CF building (Figure 4-1) that were removed at the time the new CF building was constructed in 1967; however, as previously mentioned (Site History), there are apparently no records documenting their removal or any contamination associated with the USTs.

In October 1989, a 500-gallon waste oil UST was removed on the south side of the former CF building. Soil samples collected from the ends of the UST were analyzed for total petroleum hydrocarbons (TPH) as total oil and grease, metals, and volatile organic compounds (VOCs). Total TPH was detected in the soil samples at concentrations of 6,200 and 14,000 milligrams per kilogram (mg/kg). In addition, tetrachloroethene (PCE) was detected at concentrations of 0.0076 and 0.025 mg/kg in the samples collected from the fill and drain ends, respectively, of the former UST. Based on these findings, a release of petroleum hydrocarbons was reported and leaking underground storage tank (LUST) file No. 26-89-0305 was established.

[4] True North Geotechnical, 2025, Post-Construction Summary Report, Contaminated Media Management Plan, Block 290 West, 2070 NW Quimby Street, Portland, Oregon 97209, June.

In March 1990, two soil borings (Ml and M2) were drilled to a maximum depth of 35 feet bgs to further evaluate subsurface conditions in the former waste oil UST area (Figure 4-1). Soil samples collected at 5-foot depth intervals were analyzed for TPH as total and non-polar oil and grease, polychlorinated biphenyls (PCBs), VOCs, and EP toxicity metals (Tables 1 and 2). A soil sample collected from boring Ml at a depth of 10 feet bgs detected total oil and grease (14,000 mg/kg) and minimal concentrations of toluene, total xylenes, PCE and 1,1,1-trichloroethane (1,1,1-TCA). Total oil and grease concentrations decreased to 77 mg/kg in the 15-foot sample and was not detected in the 20-foot sample. The other constituents were not detected below the 10-foot sample. Groundwater was not encountered in the borings.

In November 1990, monitoring wells were installed upgradient (MW-1), adjacent to (MW-3), and downgradient (MW-2 and MW-4) of the former waste oil UST (Figures 4-1, 4-2, and 4-3). Seventeen soil samples and four groundwater samples collected from the wells were analyzed for TPH as total and non-polar oil and grease and VOCs. TPH and VOCs were not detected at concentrations above laboratory method reporting limits (MRLs) in the soil samples (Table 3). TPH as oil and grease was detected only in the MW-3 groundwater sample; MW-3 was installed in the approximate location of the March 1990 borings Ml and M2. In addition, low levels of PCE and trichloroethene (TCE) were detected only in the MW-4 groundwater sample (3.6 and 1.2 micrograms per liter [µg/L], respectively) (Table 4).

Monitoring wells MW-1 through MW-4 were sampled in June 1999, August 2001, October 2006, April 2007, April 2008, June 2009 and August 2010 (Tables 5 and 8). Chlorinated VOCs including PCE, TCE, 1,1,1-TCA, carbon tetrachloride, chloroform, cis-1,2-dichloroethene, and 1,1-dichloroethane were historically detected in groundwater samples. During the same period, constituents associated with gasoline-, diesel- and oil-range TPH (TPH-G, TPH-D, and TPH-O) were not detected above laboratory MRLs. Depth-to-water data from the monitoring wells indicated a northeasterly groundwater flow direction.

In November 2006, a soil boring (GP-1; Figures 4-1 and 4-2) was drilled in the area of the former waste oil UST. Analysis of a soil sample collected from boring GP-1 at 14 feet bgs detected TPH-G, TPH-D, and TPH-O (2,950, 451, and 459 mg/kg, respectively) (Tables 6 and 7). Low levels of some gasoline related VOC constituents were also detected in this soil sample; however, polycyclic aromatic hydrocarbons (PAHs) were not detected. TPH (gasoline-, diesel, and oil-range) was not detected in a sample collected at 19 feet bgs in GP-1. Site-specific risk-based concentrations (RBCs) for TPH-G were calculated using constituent analytical data from boring GP-1. The calculation showed no unacceptable vapor intrusion risks from TPH-G.

In June 2009, at the request of DEQ, four borings (GP-4 through GP-7; Figure 4-3) were drilled in a parking lot northeast of the Site to further evaluate the magnitude and extent of soil and groundwater contamination. Analysis of soil samples from the borings did not detect TPH-G, TPH-D, or TPH-O. Likewise, groundwater analytical results did not reveal detectable concentrations of constituents associated with these petroleum fractions. However, TCE was detected in groundwater at concentrations ranging from 2.91 micrograms per liter (µg/L) to 43.60 µg/L, and PCE was detected at concentrations ranging from 2.08 to 4.72 µg/L. Low levels of other chlorinated VOCs were also detected (Table 8).

In August 2010, two additional borings (GP-8 and GP- 9; Figure 4-3) were drilled to further delineate groundwater impacts found at the June 2009 boring GP-6. As in previous investigations, analysis of groundwater samples from the borings did not reveal detectable levels of constituents associated with TPH, confirming that the former USTs did not adversely impact Site groundwater. However, TCE and PCE were detected at similar levels to those found in groundwater from GP-4 through GP-7 (Table 8). The investigation revealed that groundwater impacted with chlorinated VOCs extends east and northeast of the Site. It should be noted that TCE was historically detected at concentrations ranging from 1.53 to 9.50 µg/L in upgradient monitoring well MW-1.

DEQ issued a No Further Action (NFA) letter dated October 3, 2012, associated with waste oil UST decommissioning (LUST file No. 26-89-0305). Because chlorinated VOCs were not detected at concentrations exceeding then-current RBCs for the *Groundwater Vapor Intrusion into Building* exposure pathway under the most stringent exposure scenarios, and because groundwater in the area had no current or likely future beneficial use as drinking water, DEQ did not require further groundwater assessment.

In 2014, eight direct-push soil borings (DP-1 through DP-8) were advanced to depths of 20 or 30 feet bgs (Figures 4-1 and 4-2). Notably, boring DP-3 was located near the former waste oil UST, and DP-6 was near the former USTs associated with the older (pre-1967) CF building (Figure 4-1). Select soil samples from each boring were analyzed for petroleum hydrocarbon identification (Method NWTPH-HCID), PAHs, and RCRA 8 metals. TPH and PAHs were not detected above the MRLs, and metals concentrations generally reflected naturally occurring background concentrations for the Portland Basin, with average concentrations below background levels except for selenium. The average selenium concentration of 18.9 mg/kg was above the background level of 0.71 mg/kg. The source of the elevated selenium concentrations is unknown but does not appear to be related to petroleum hydrocarbon releases at the Site because detections were found across the Site and at various depths.

Development of the Slabtown Square apartment building in 2022 and 2023 included mass excavation across the Site to accommodate constructing the subgrade parking garage, elevator shafts, and building infrastructure. Site grade was excavated to a maximum of approximately 20 feet bgs. True North Geotechnical provided environmental oversight during 1) soldier pile and tie-back anchor installations, 2) mass excavation, and 3) drilling of three drywells to 35 feet bgs and an ”interceptor” boring to 13 feet bgs located along NW Quimby Street. Multiple lenses of petroleum contaminated soil (PCS) were encountered during mass excavation at depths ranging from 2 to 5 feet bgs mostly in the northeast and northwest portions of the Site. The lenses varied in thickness from 3 to 4 feet. PCS was identified based on visual and olfactory indications of contamination, as well as field screening using a photoionization detector. Approximately 3,556 tons of PCS were transported to Hillsboro Landfill for disposal.

A total of 138 confirmation soil samples were collected from the sidewalls and subgrade floor of the mass excavation, and six soil samples were collected from the drywell and interceptor boreholes (Figure 5). Except for one sample, petroleum hydrocarbons were not detected by petroleum hydrocarbon identification testing (NWTPH-HCID) (Table 10). The identification results for sample No. N24-3 (reference identification S3 in Figure 5) collected from the north

sidewall at 3 feet bgs identified oil-range TPH; however, diesel- or oil-range TPH were not detected above the MRL using quantitation method NWTPH-Dx. The initial identification result may be due to biogenic interference since the sample was not tested using silica gel cleanup.

A vapor barrier system was installed below the parking garage to mitigate potential vapor intrusion risk. The barrier system was described in the Post-Construction Summary Report[4] as a 15-mil thick VaporBlock® high-performance underslab vapor barrier consisting of a multi-layer, co-extruded geomembrane constructed of flexible, linear low-density polyethylene (LLDPE) with an inner layer of chemically resistant ethylene-vinyl alcohol copolymer (EVOH) barrier resin designed specifically for protection from radon, methane, and VOCs. The vapor barrier system is not suitable for purposes of mitigating potential vapor intrusion risk for the following reasons:

- The 15-mil thickness does not meet the minimum 30-mil thickness recommended by DEQ.
- No design or as-built drawings of the vapor barrier system, signed/stamped by a registered engineer, have been provided to DEQ.
- A certification report was not provided to DEQ documenting installation of the vapor barrier system according to manufacturer's specifications or industry standard practices.
- No information was provided indicating that post-installation field testing was performed to evaluate the integrity of the vapor barrier system.

4. RISK EVALUATION

Conceptual Site Model.
Evaluation of human exposure to residual chemical contamination requires an assessment of the type and extent of that exposure. This is based on current and reasonably likely future site use. DEQ publishes RBCs for contaminants commonly encountered under various exposure scenarios. These RBCs are conservative estimates of protective levels of contaminants in soil, groundwater, and air. Table 11 shows potential exposure pathways and receptors for the Site. Based on this, applicable RBCs are identified and used for risk screening.

Confirmation soil sample analytical data obtained after mass excavation was completed demonstrated that there is no residual TPH soil contamination at the Site, thereby eliminating health risks to receptors. As a result, there is no need to compare residual contaminant levels to RBCs. Soil exposure pathways were therefore evaluated based on the Site conditions after mass excavation was completed to streamline the conceptual site model evaluation (i.e., historical soil analytical data were not considered).

Table 11. Identification of Applicable RBCs Based on Pertinent Pathways and Receptors

Pathway	Receptor	Applicable RBC?	Basis for selection/exclusion
SOIL			
Ingestion, dermal contact, and inhalation	Residential	No	See Note 1.
	Occupational	No	
	Construction worker	No	See Note 1
	Excavation worker	No	
Volatilization to outdoor air	Residential	No	See Note 1.
	Occupational	No	
Vapor intrusion into buildings	Residential	No	See Note 1.
	Occupational	No	
Leaching to groundwater	Residential	No	See Notes 1 and 2.
	Occupational	No	
GROUNDWATER			
Ingestion and inhalation from tap water	Residential	No	See Note 2.
	Occupational	No	
Volatilization to outdoor air	Residential	Yes	See Note 3
	Occupational	Yes	
Vapor intrusion into buildings	Residential	Yes	See Note 3
	Occupational	Yes	
Groundwater in excavation	Construction and excavation worker	No	Groundwater is present at a minimum seasonal depth of approximately 45 feet bgs (approx. 25 feet below the parking garage), beyond the depth of reasonable direct-contact exposure to these receptors.

Notes:

1. After mass excavation was completed, confirmation soil sampling results did not identify residual TPH contamination thereby mitigating health risks to receptors at the Site. Based on the complete removal of residual TPH, other contaminants of interest (COIs) (e.g., petroleum related constituents such as VOCs, PAHs, polychlorinated biphenyls, and select metals) are assumed to also be absent or present at levels that would not pose risks to human health.
2. A beneficial use survey revealed no drinking water wells within an approximate ½-mile radius of the Site, and groundwater is not likely to be utilized in the future. The leaching to groundwater exposure pathway is not considered to be complete in accordance with Sections 2.2.3 and B.3.2.4 of DEQ's RBDM guidance.
3. Chlorinated VOCs were historically detected (1990 through 2010) in groundwater from former monitoring wells MW-1 through MW-4, although the source of this contamination is not known and monitoring well MW-1 (i.e., hydraulically upgradient corner of the site) consistently contained detectable TCE.

Maximum Contaminant Concentrations – Groundwater.
To evaluate human health risks from contamination in groundwater under various exposure scenarios, the highest detected concentrations of TPH and VOCs from the following were utilized for comparison:

- Intermittent groundwater data collected from 1990 through 2010 (eight events) from former monitoring wells MW-1 through MW-4.

Groundwater Volatilization to Outdoor Air

Constituent of Interest	Max. Conc. Detected in Groundwater µg/L	Residential Receptor (RBC_{so}) µg/L	Occupational Receptor (RBC_{wi}) µg/L	COPC? (Yes/No)
trichloroethene (TCE)	39.7	3,300	20,000	N
tetrachloroethene (PCE)	7.30	64,000	>S	N
chloroform	5.90	1,400	6,300	N
carbon tetrachloride	1.19	1,800	7,700	N
1,1,1-trichloroethane	0.90	>s	>S	N
1,1-dichloroethane	0.55	16,000	68,000	N
cis-1,2-dichloroethene	0.51	>s	>S	N

Yellow highlighted RBCs were exceeded in samples collected from one or more locations
COPC = contaminant of potential concern
>S = This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present.

This table shows that there are no human health risks from volatilization to outdoor air at the Site for residential and occupational receptors. It should also be noted that this exposure pathway is significantly reduced or eliminated at ground level through an engineering control in the form of a dedicated ventilation system within the parking garage (as required by building code), separate from the HVAC systems for the above-grade levels.

Groundwater Vapor Intrusion into Buildings

Constituent of Interest	Max. Conc. Detected in Groundwater µg/L	Residential Receptor (RBC_{so}) µg/L	Occupational Receptor (RBC_{wi}) µg/L	COPC? (Yes/No)
trichloroethene (TCE)	39.7	2.1	13	Y
tetrachloroethene (PCE)	7.30	29	130	N
chloroform	5.90	1.4	5.9	Y
carbon tetrachloride	1.19	0.71	3.1	Y
1,1,1-trichloroethane	0.90	13,000	53,000	N
1,1-dichloroethane	0.55	13	55	N
cis-1,2-dichloroethene	0.51	430	1,800	N

Yellow highlighted RBCs were exceeded in samples collected from one or more locations
COPC = contaminant of potential concern

The maximum detected concentrations of TCE, chloroform, and carbon tetrachloride exceeded residential and/or occupational worker RBCs for the groundwater vapor intrusion into buildings exposure pathway; as such, these constituents screen in as COPCs for this pathway. These detections were for groundwater samples collected from MW-1 through MW-4 for TCE,

chloroform in MW-1 through MW-4 samples in 1990 only, and carbon tetrachloride in MW-2 only during one sampling event in 2001.

While TCE was consistently detected in the monitoring well groundwater samples, the detections of chloroform and carbon tetrachloride were transient (during single monitoring events) and not repeated during subsequent sampling events. As a result, TCE is the only VOC in groundwater that warrants further consideration.

These constituents are not related to chemical releases at the Site because analysis of on-Site and off-Site (downgradient) groundwater samples did not reveal detectable levels of TPH or related VOC constituents (i.e., benzene, toluene, ethylbenzene, and total xylenes), confirming that the former USTs did not impact groundwater. Additionally, the vertical extent of soil contamination did not extend beyond 15 to 20 feet bgs based on historical investigation results and mass excavation confirmation soil sampling results. This depth range is well above the seasonal minimum depth to groundwater of approximately 45 feet bgs.

Chloroform was detected in all monitoring well groundwater samples and an equipment blank sample during the initial sampling event only in 1990 but was not detected during subsequent monitoring events from 1999 through 2010. Reanalysis of the MW-4 and equipment blank samples on a different instrument confirmed the initial chloroform results. The source of the chloroform was unknown but was reported to have potentially originated from the distilled water used during sampling or as an artifact of laboratory contamination.

Human Health Risk.
Confirmation soil sampling after mass excavation was completed did not identify any residual soil contamination thereby mitigating health risks to receptors at the Site for all soil exposure pathways.

TCE was historically detected in groundwater at concentrations exceeding generic RBCs for the vapor intrusion into buildings exposure pathway for residential and occupational receptors and were therefore screened in as COPCs. However, based on consideration of the following, risks to human receptors are minimal or nonexistent for this pathway, and TCE was not carried forward as a contaminant of concern (COC):

- Vapor intrusion into the ground floor of the building will be significantly reduced or eliminated through an engineering control in the form of a dedicated ventilation system within the parking garage (as required by building code), separate from the HVAC systems for the above-grade levels. The below-grade, ventilated parking garage exists beneath the entire building and operates continuously. The exhaust air exchange rates for the ventilation system must meet minimum requirements in accordance with Oregon Mechanical Specialty Code 404.1 and International Mechanical Code 404.2 (i.e., 0.05 cubic feet per minute (cfm) per square foot of floor area (under low-speed operation) and 0.75 cfm per square foot of floor area (under high-speed operation).
- Although the vapor mitigation engineering control is not approved by DEQ, the 15-mil barrier installed below the concrete slab, in conjunction with the dedicated ventilation

system for the subgrade parking level, will reduce the potential for intrusion of volatile vapors.

- Groundwater data were collected from 1990 to 2010. Barring any new off-Site (and unknown) sources of contamination of groundwater, it is expected that some level of natural attenuation of TCE has occurred since 2010.
- Groundwater occurs at a minimum seasonal depth of approximately 45 feet bgs. Approximately 10 feet of glacial flood deposits are present between the bottom of the parking garage (approximately 20 feet bgs) and the bottom of the flood deposits (approximately 30 feet bgs). The fine-grained nature of these deposits (silt, sand, and mixtures thereof) will help impede vertical vapor migration particularly where silty horizons are present.

Ecological risk.
The site is devoid of habitat. The nearest surface water feature is the Willamette River approximately ½-mile to the northwest. Analytical data from historical off-Site groundwater assessments on the adjacent Block 291 to the north did not delineate the downgradient extent of groundwater contamination that is also present below the Site. Notwithstanding, no evidence has been found that the Site is contributing to groundwater impacts, and the source of groundwater contamination remains unknown. Groundwater impacts are likely due in part to local groundwater contamination from historical industrial activities in the Site vicinity because TCE at concentrations up to 9.5 µg/l was found in on-Site, upgradient monitoring well MW-1. Based on this information, the extent of groundwater contamination, and the potential for discharge to the Willamette River, does not warrant further evaluation with respect to the proposed NFA.

5. RECOMMENDATION

Following removal of contamination and based on the final sample results for soil and groundwater, there are no unacceptable risks for soil and minimal or nonexistent risks for groundwater. A NFA determination is therefore recommended for this Site. The NFA determination (i.e., NFA letter) should be maintained in the Your DEQ Online (YDO) database for file No. 6507.

6. ADMINISTRATIVE RECORD

Observation and Environmental Sampling, Consolidated Freightways, Inc., Portland, Oregon. L.R. Squire Associates, Inc. March 27, 1990.

Consolidated Freightways Facility, 2050 NW Quimby Street, Portland, Oregon. Blymyer Engineers, Inc. April 18, 1990.

Observation and Environmental Soil and Groundwater Sampling, Consolidated Freightways, Inc., Portland, Oregon. Squire Associates. January 10, 1991.

Phase I Environmental Site Assessment, Limited Asbestos Survey, and Groundwater Sampling, Consolidated Freightways Building, 2050 SW Quimby Street, Portland, Oregon. GeoDesign, Inc. August 5, 1999.

Report of Environmental Services, Con-Way, Inc. Property, 2050 NW Quimby Street, Portland, Oregon. GeoDesign, Inc. January 23, 2007.

Report of Environmental Services, Con-Way, Inc. Property, 2050 NW Quimby Street, Portland, Oregon. GeoDesign, Inc. September 2, 2009.

Report of Environmental Services, Con-Way, Inc. Property, 2050 NW Quimby Street, Portland, Oregon. GeoDesign, Inc. December 3, 2010.

No Further Action Determination, Con-Way, Inc., File No. 26-89-0305. Oregon Department of Environmental Quality. October 3, 2012.

Environmental Services Report, Con-Way Pettygrove and 21st – Mixed-Use Project (Block 290), NW 21st Avenue and NW Pettygrove Street, Portland, Oregon. GeoDesign, Inc. November 21, 2014.

Summary of Environmental Contamination, Block 290 East Park. Geo Consultants Northwest. August 31, 2020

Post-Construction Summary Report, Contaminant Media Management Plan, Block 290 West, 2070 NW Quimby Street, Portland, Oregon 97209 (DRAFT). True North Geotechnical. May 17, 2024

Post-Construction Summary Report, Contaminant Media Management Plan, Block 290 West, 2070 NW Quimby Street, Portland, Oregon 97209. True North Geotechnical in collaboration with Strata Design. June 10, 2025.

7. ATTACHMENTS

Figures

1. Site Vicinity Map
2. Topographic Map
3. Site Plan

4-1. UST Location Map & Previously Studied Areas
4-2. Areas Previously Studied (GeoDesign)
4-3. Areas Previously Studied (GeoDesign)

5. Mass Excavation & Former PCS Boundary

Tables

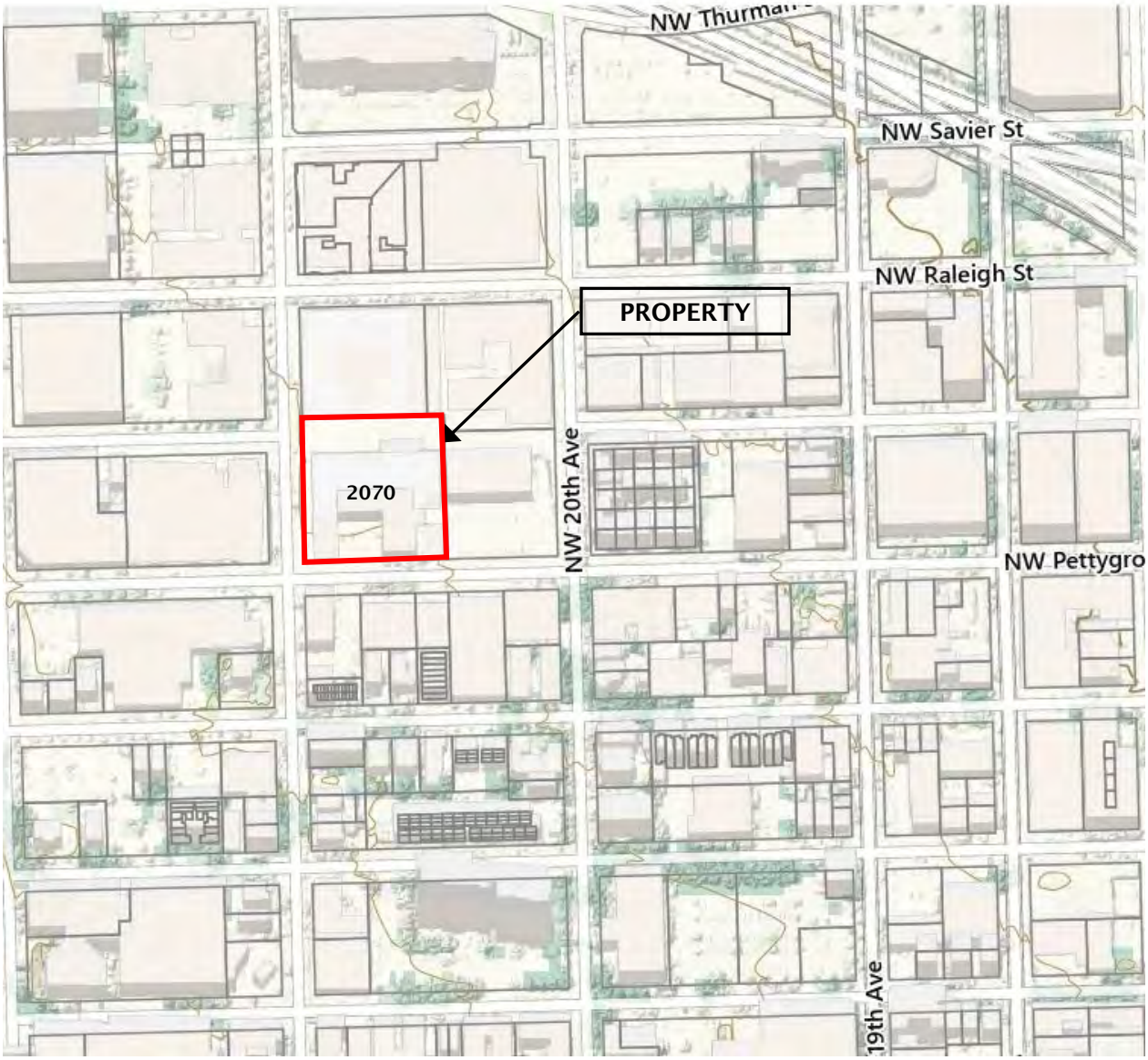
1. April 1990 Soil Sample Laboratory Analytical Results
2. April 1990 Soil Sample Laboratory Analytical Results
3. April 1990 Soil Sample Laboratory Analytical Results
4. October 1990 Water Sample Laboratory Analytical Results
5. June 1999 Water Sample Laboratory Analytical Results
6. November 2006 Soil Sample Laboratory Analytical Results

7. November 2006 Soil Sample Laboratory Analytical Results
8. 1999-2011 Water Sample Laboratory Analytical Results
10. April 2022 – January 2023 Summary Soil Sample Laboratory Analytical Results
11. Identification of Applicable RBCs Based on Pertinent Pathways and Receptors (embedded in the Staff Memorandum, page 9)

Figure and Tabe Notes:

- Figures and tables are unmodified as presented in *Post-Construction Summary Report, Contaminant Media Management Plan, Block 290 West, 2070 NW Quimby Street, Portland, Oregon 97209*, True North Geotechnical in collaboration with Strata Design, June 10, 2025.
- The tables, as presented in the Post-Construction Summary Report, were copied unmodified from reports in which they were originally published and therefore include outdated RBCs. A summary table comparing historical soil analytical data to current RBCs was not prepared because no residual TPH contamination was identified and therefore comparison to RBCs is not needed.

FIGURES



METROMAP.COM
2070 NW QUIMBY ST, PORTLAND, OREGON 97209

LAT 45.533 N, LON 122.694 W; TOWNSHIP 1N RANGE 1E SECTION 33

SCALE: 1 INCH = 300 FEET

N

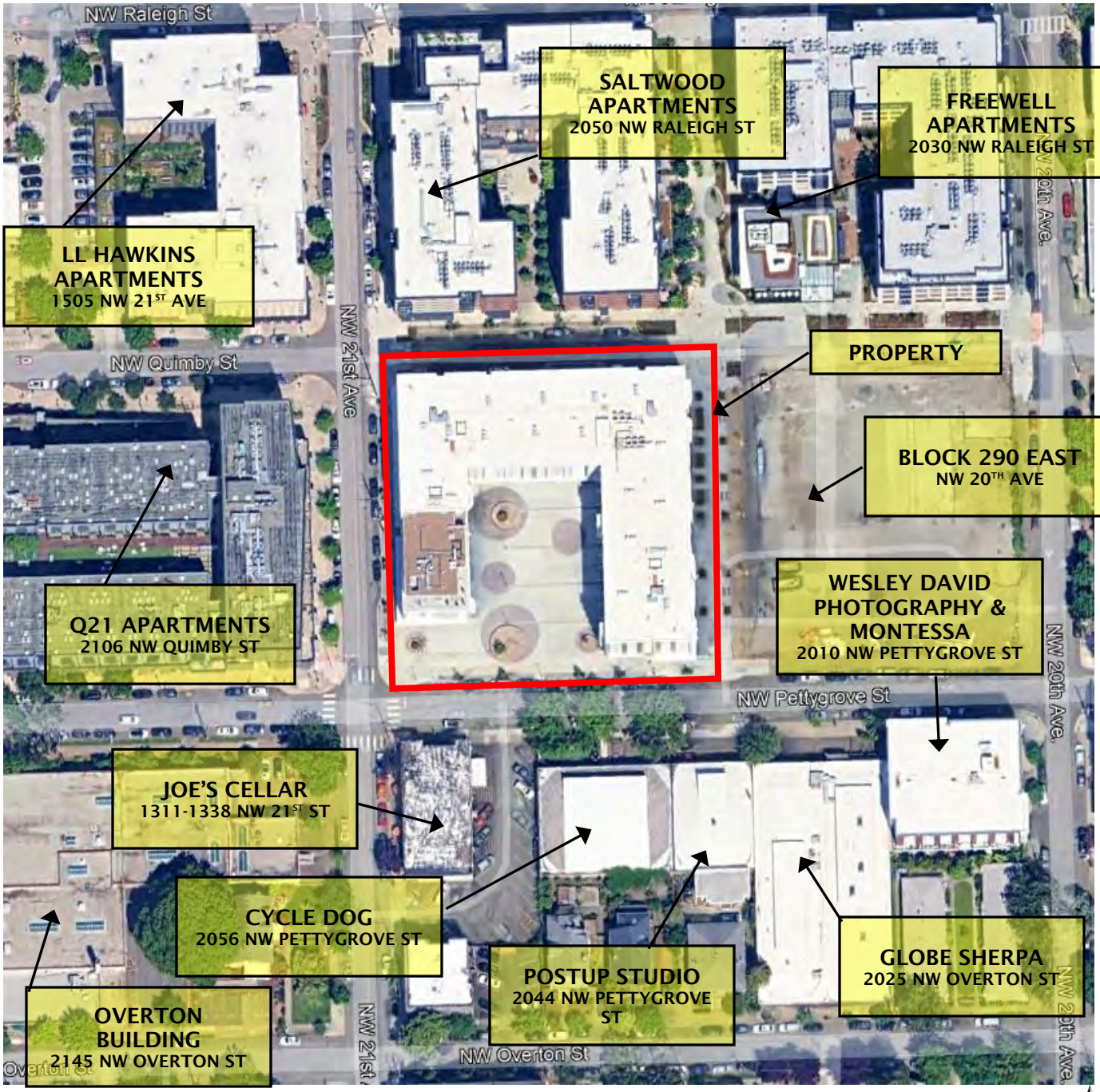
TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Portland, Oregon	Project # 22-0061-9
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 1 – Site Vicinity Map

USGS 7.5 MINUTE TOPOGRAPHICAL MAP, PORTLAND, OREGON 2024

SCALE: 1 INCH = 500 FEET

N

TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Portland, Oregon	Project # 22-0061-9
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 2 – Topographic Map



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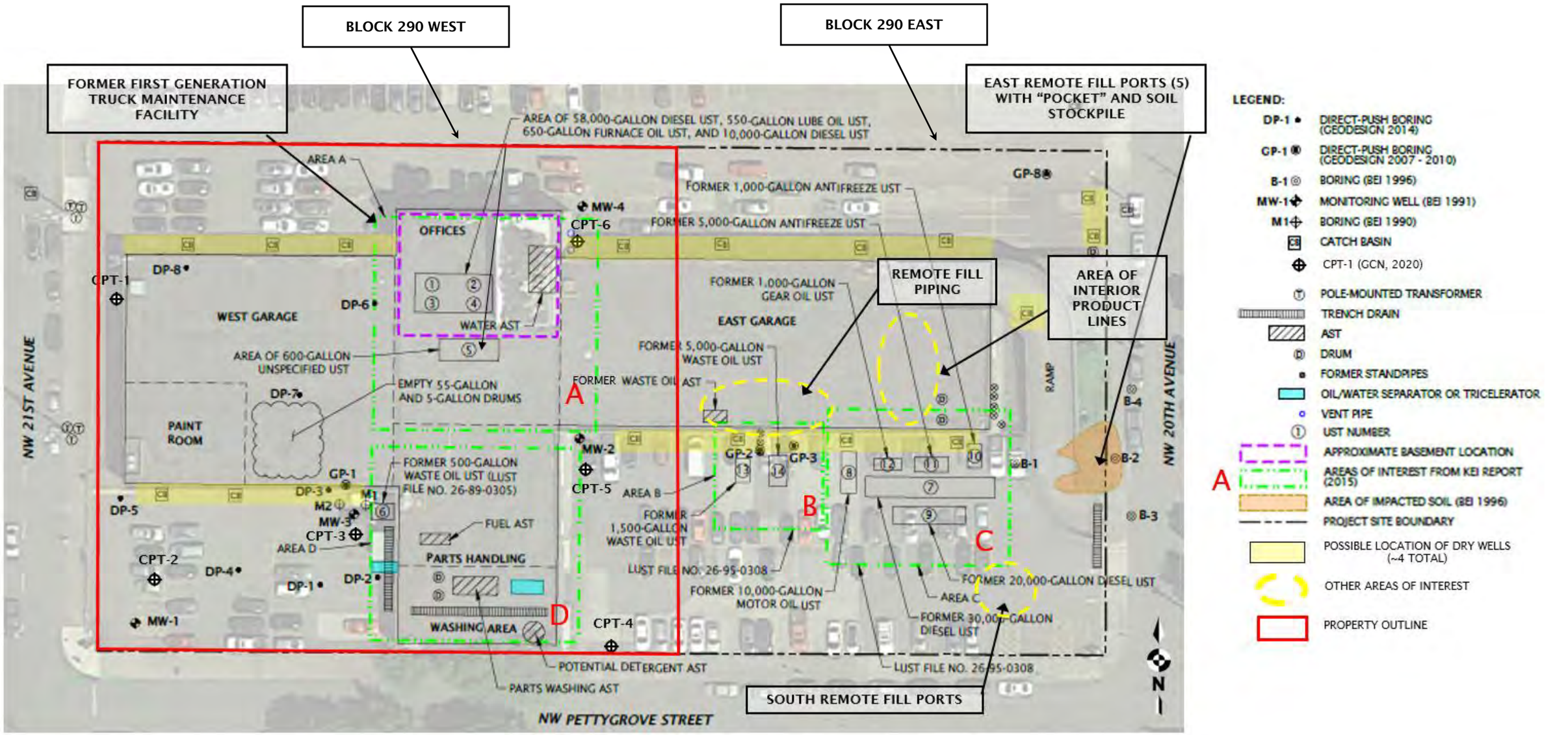
SCALE: 1 INCH = ~50 FEET

TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Portland, Oregon	Project # 22-0061-1
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 3 – Site Plan



BASEDRAWING: "SITE PLAN", CREATED BY GEODESIGN, PREPARED 2019, WITH GCN CPT LOCATION OVERLAY.

SCALE: 1 INCH = 30 FEET (PRINTED ON 11 X 17)

UST = UNDERGROUND STORAGE TANK
AST = ABOVEGROUND STORAGE TANK.

TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Development Portland, Oregon	Project # 22-0061-9
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 4-1 – UST LOCATION MAP & PREVIOUSLY STUDIED AREAS

LEGEND:

- B-1 ● BORING (GEODESIGN, 2014)
- GP-1 ○ DIRECT-PUSH BORING (GEODESIGN 2006)
- MW-1 ⊕ MONITORING WELL
- DP-1 ● DIRECT-PUSH BORING (GEODESIGN 2014)
- CB CATCH BASIN
- T POLE-MOUNTED TRANSFORMER
- AS-01 ○ SUSPECT ACM SAMPLE (RED INDICATES ASBESTOS GREATER 1%)
- TRENCH DRAIN

N

0 50 100

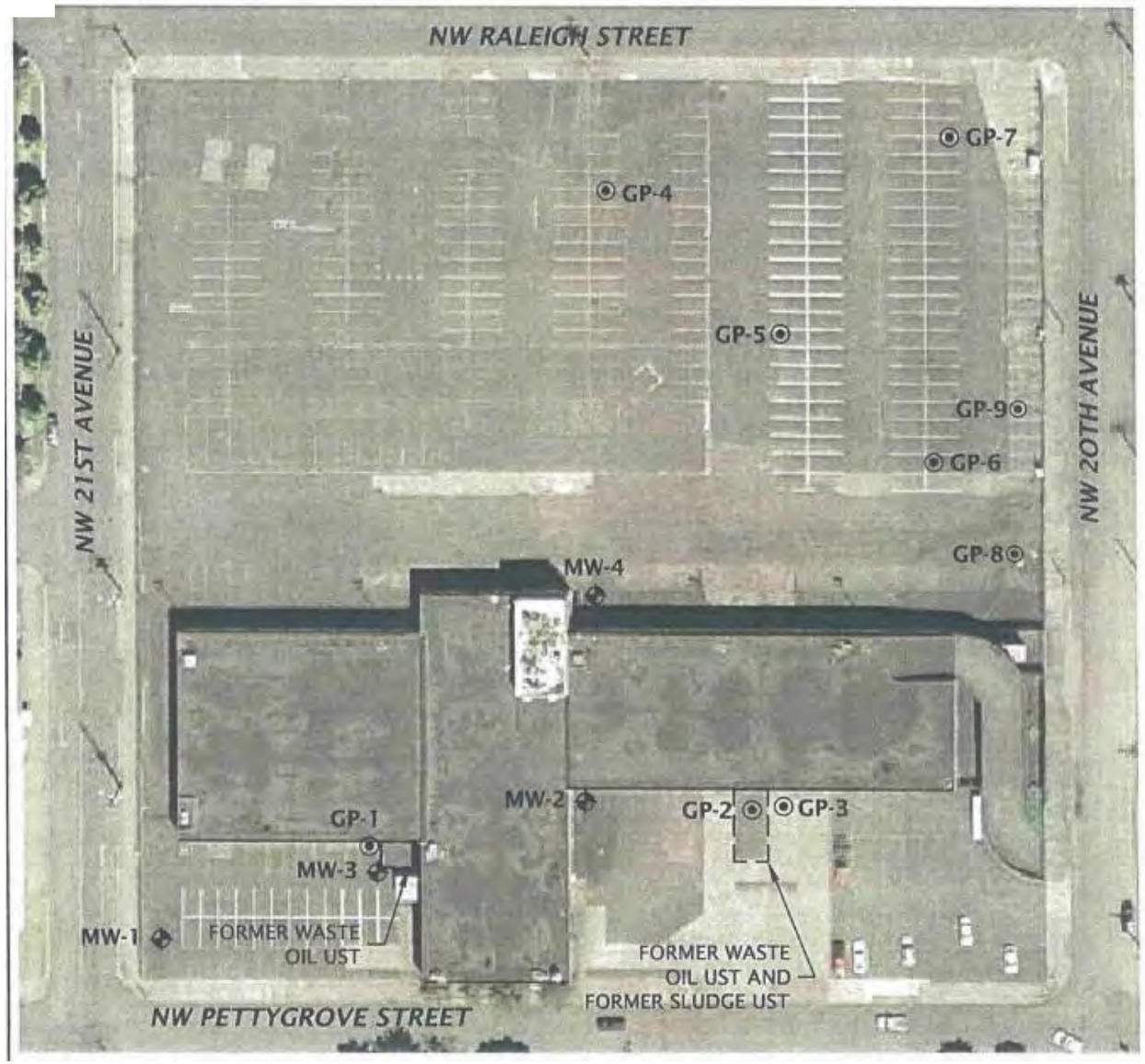
(SCALE IN FEET)

SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, SEPTEMBER 22, 2014

N

BASEDRAWING: "SITE PLAN", CREATED BY GEODESIGN, PREPARED NOVEMBER 2014.

TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Development Portland, Oregon	Project # 22-0061-9
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 4-2 – AREAS PREVIOUSLY STUDIED (GEODESIGN)



LEGEND:

GP-1 ⊙	DIRECT-PUSH BORING
MW-1 ⊕	MONITORING WELL

N

0 80 160

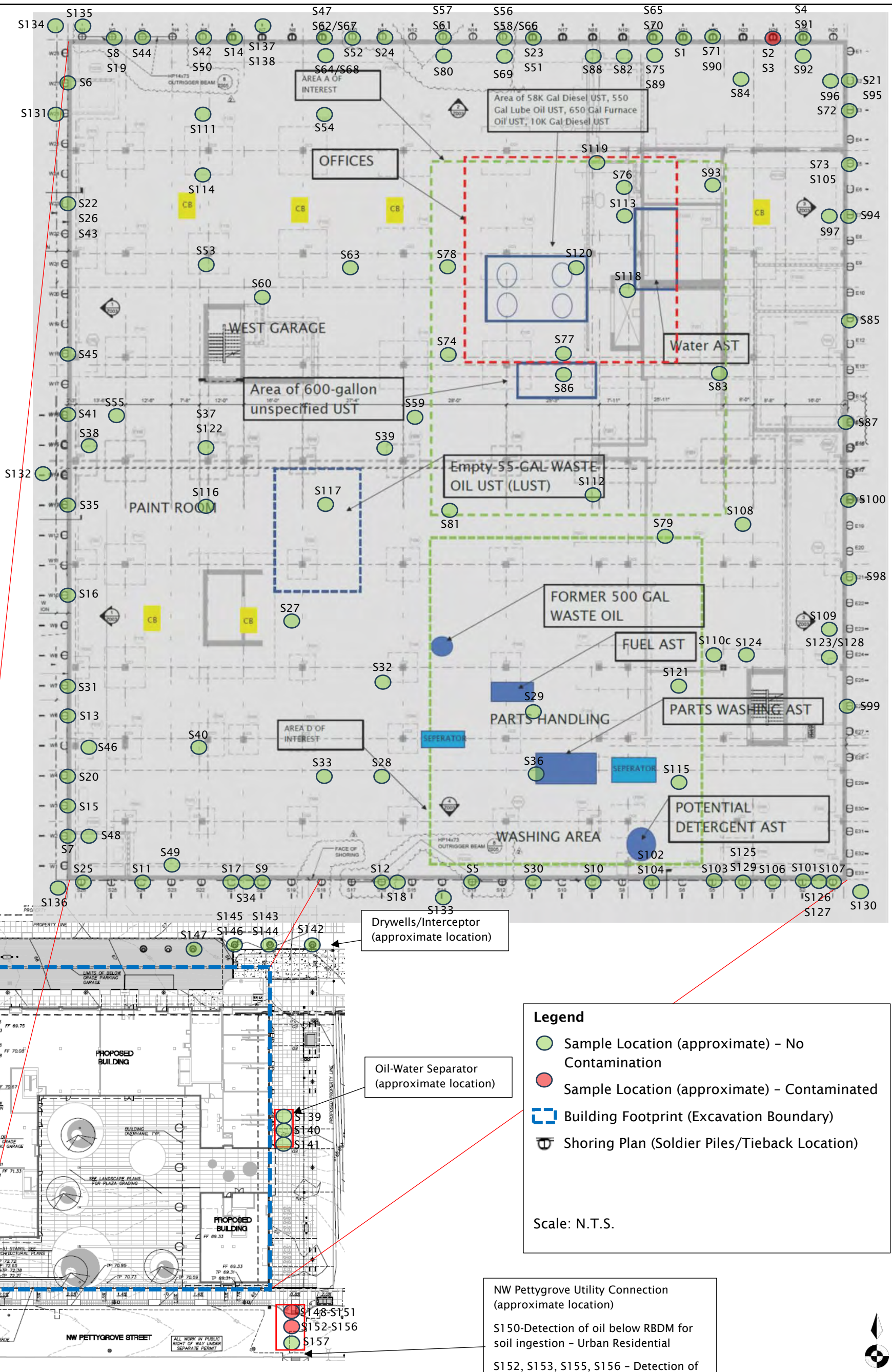
(SCALE IN APPROXIMATE FEET)

SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM PORTLAND MAPS

N

BASEDRAWING: "SITE PLAN", CREATED BY GEODESIGN, PREPARED DECEMBER 2010.

TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Development Portland, Oregon	Project # 22-0061-9
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 4-3 – AREAS PREVIOUSLY STUDIED (GEODESIGN)



SOURCE: BASE DRAWINGS "GRADING PLAN" LRS ARCHITECTS/HUMBER DESIGN GROUP, DATE CREATED MARCH 2020 AND "BASEMENT FOUNDATION PLAN A-B" PREPARED BY LRS ARCHITECTS, DATE CREATED APRIL 2019.

TRUE NORTH GEOTECHNICAL	Guardian Real Estate Services Block 290 West Development Portland, Oregon	Project # 22-0061-9
219 West 4th Street Vancouver, WA 98660 360-984-6584	June 2025	Figure 5 – MASS EXCAVATION AND FORMER PCS BOUNDARY

TABLES

Table 1 – April 1990 Soil Sample Laboratory Analytical Results

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

SAMPLE NUMBER	DEPTH	PID RESULTS (PPM)	EPA METHOD 418.1 OIL & GREASE (mg/Kg)		EPA METHOD 8020[1] (ug/Kg)	
			TOTAL	NONPOLAR	TOLUENE	XYLENE
M1-S1	5.0-6.5	ND	120	ND	ND	ND
M1-S2	10.0-11.5	160	14,000	13,000	2.6	230
M1-S3	15.0-16.5	ND	77	71	ND	ND
M1-S4	20.0-21.5	ND	ND	ND	ND	ND
M1-S5	25.0-26.5	ND	ND	ND	ND	ND
M1-S6	30.0-31.5	ND	68	ND	ND	ND
M2-S1	5.0-6.5	ND	ND	74	ND	ND
M2-S2	10.0-11.5	ND	ND	ND	ND	ND
M2-S3	15.0-16.5	ND	ND	ND	ND	ND
M2-S4	15.0-16.5	ND	ND	ND	ND	ND
M2-S5	25.0-26.5	ND	66	ND	ND	ND
M2-S6	30.0-30.5	ND	ND	ND	ND	ND

ND = NOT DETECTED

[1] BENZENE AND ETHYL BENZENE WERE NOT DETECTED

ug/Kg = MICROGRAMS PER KILOGRAM

mg/Kg = MILLIGRAMS PER KILOGRAM

PPM = PARTS PER MILLION

Table 2 – April 1990 Soil Sample Laboratory Analytical Results

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

SAMPLE NUMBER	DEPTH	EPA METHOD 8010* (ug/Kg)		EP TOXICITY (mg/l)	EPA METHOD 8080 (ug/Kg)
		PCE[2]	1,1,1-TCA[3]	METALS[4]	PCB[5]
M1-S1	5.0-6.5	ND	ND	ND	ND
M1-S2	10.0-11.5	2.9	4.3	ND	ND
M1-S3	15.0-16.5	ND	ND	ND	ND
M1-S4	20.0-21.5	ND	ND	ND	ND
M1-S5	25.0-26.5	ND	ND	ND	ND
M1-S6	30.0-31.5	ND	ND	ND	ND
M2-S1	5.0-6.5	ND	ND	ND	ND
M2-S2	10.0-11.5	ND	ND	ND	ND
M2-S3	15.0-16.5	ND	ND	ND	ND
M2-S4	20.0-21.5	ND	ND	ND	ND
M2-S5	25.0-26.5	ND	ND	ND	ND
M2-S6	30.0-31.5	ND	ND	ND	ND

[2] PCE = TETRACHLOROETHENE

[3] 1,1,1-TCA = TRICHLOROETHANE

[4] EP TOXICITY METALS TESTED WERE,
ARSENIC, BARIUM, CADMIUM, TOTAL CHROMIUM, LEAD AND ZINC

[5] PCB = POLYCHLORINATED BIPHENYLS

* ONLY DETECTABLE HALOGENATED VOLATILE ORGANICS PRESENTED IN THIS TABLE.

ug/Kg = MICROGRAMS PER KILOGRAM

mg/Kg = MILLIGRAMS PER KILOGRAM

mg/L = MILLIGRAMS PER LITER

Table 3 – April 1990 Soil Sample Laboratory Analytical Results

Soil Sample Analytical Results

Total Oil and Grease, SM5520 C/E (mg/Kg)
Non-Polar Oil and Grease, SM5520 C/E/F (mg/Kg)
Halogenated Volatile Organic Compounds, EPA Method 8010 (µg/Kg)
Benzene, Ethylbenzene, Toluene, Xylenes, EPA Method 8020 (µg/Kg)

Sample ID	DEPTH (feet)	Total O&G	Non-Polar O&G	8010	8020
B-1, S-1	5	ND	ND	ND	ND
B-1, S-3	15	ND	ND	ND	ND
B-1, S-6	30	ND	ND	ND	ND
B-1, S-10	50	ND	ND	ND	ND
B-1, S-12	60	ND	ND	ND	ND
B-2, S-1	5	ND	ND	ND	ND
B-2, S-2	10	ND	ND	ND	ND
B-2, S-5	25	ND	ND	ND	ND
B-2, S-10	50	ND	ND	ND	ND
B-3, S-1	5	ND	ND	ND	ND
B-3, S-4	20	ND	ND	ND	ND
B-3, S-6	30	ND	ND	ND	ND
B-3, S-11	55	ND	ND	ND	ND
B-4, S-2	10	ND	ND	ND	ND
B-4, S-4	20	ND	ND	ND	ND
B-4, S-9	45	ND	ND	ND	ND
B-4, S-10	50	ND	ND	ND	ND

ND = not detected
mg/Kg = parts per million (milligrams per Kilogram)
µg/Kg = parts per billion (micrograms per Kilogram)

Table 4 – October 1990 Water Sample Laboratory Analytical Results

Summary of Water Sample Analytical Results

Total Oil and Grease, SM5520 B/C (mg/L)
Non-Polar Oil and Grease, SM5520 B/C/F
Halogenated Volatile Organic Compounds, EPA Method 8010 (µg/L)
Benzene, Ethylbenzene, Toluene, Xylenes, EPA Method 602 (µg/L)

	MW-1 S-1	MW-2 S-2	MW-3 S-3	MW-4 S-4	Equipment Blank
SM5520 B/C	ND	ND	5.5	ND	ND
SM5520 B/C/F	ND	ND	5.2	ND	ND
8010					
Bromodichloromethane	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND
Chloroform	5.5	4.3	5.9	3.1	1.8
Chloromethane	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND
Dichlorodifluormethane	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND
trans-1,2,-Dichloroethene	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	1.2	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	3.6	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND
8020					
Benzene	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND
Xylenes, total	ND	ND	ND	ND	ND

mg/L = milligrams per Liter (parts per million)
µg/L = micrograms per Liter (parts per billion)
ND = Not Detected

Table 5 – June 1999 Water Sample Laboratory Analytical Results

Groundwater Sample Results
June 26, 1999

Monitoring Well/ Sample Number	Well Depth	Depth to Water (feet bgs)	TCE (µg/l)	PCE (µg/l)
MW-1	67.0	52.20	1.53	ND
MW-2	64.5	44.65	4.13	ND
MW-3	64.5	47.10	5.24	ND
MW-4	64.5	45.80	39.30	2.88
EPA Drinking Water Standard	-	-	5 µg/l	5 µg/l

Notes:

All samples analyzed by Specialty Analytical, Inc. in Tualatin, Oregon.

bgs = below ground surface

µg/l = micrograms per liter

ND = none detected

Table 6 – November 2006 Soil Sample Laboratory Analytical Results

Summary of Soil Sample Chemical Analytical Data: Hydrocarbons and PAHs
Con-Way Property
Portland, Oregon

Sample I.D.	Date	Field Screening Results		Hydrocarbon Identification Using Method NWTPH-HCID (mg/Kg)			Diesel- and Heavy Oil-Range Hydrocarbons Using Method NWTPH-Dx (mg/Kg)		Gasoline-Range Hydrocarbons Using Method NWTPH-Gx (mg/kg)	PAHs Using EPA Method 8270C-SIM (mg/kg)
		Headspace Vapor (ppm)	Sheen	Gasoline	Diesel	Heavy Oil	Diesel	Heavy Oil		
GP-1(14-15)	11/03/06	325.0	No Sheen	DET	DET	DET	451	459	2950	ND<0.343
GP-1(19-20)	11/03/06	0.0	No Sheen	NA	NA	NA	ND<22.4	ND<44.8	ND<4.65	NA
GP-2(13.5-14.5)	11/03/06	0.0	No Sheen	ND<24.2	ND<60.4	DET	ND<124	367	NA	ND<0.793
GP-3(19-20)	11/03/06	190.0	No Sheen	ND<21.0	ND<52.5	ND<105	NA	NA	NA	NA
DEQ RBCs (mg/Kg)										
Soil Ingestion, Dermal Contact, and Inhalation (Occupational)				NE	NE	NE	70,000		22,000	varies
Soil Ingestion, Dermal Contact, and Inhalation (Construction Worker)				NE	NE	NE	23,000		13,000	varies
Soil Ingestion, Dermal Contact, and Inhalation (Excavation Worker)				NE	NE	NE	>Max		>Max	varies
Volatilization to Outdoor Air (Occupational)				NE	NE	NE	>Max		80,000	varies
Vapor Intrusion into Buildings (Occupational)				NE	NE	NE	>Max		>Max	varies
Leaching to Groundwater (Occupational)				NE	NE	NE	>Max		110	varies

Notes:
Chemical analyses performed by Apex Laboratories, LLC of Tigard, Oregon.
>Max: The constituent RBC for this pathway is greater than 100,000 mg/Kg. The TPH RBC is greater than the maximum amount that would be present if all of the initial air space is filled with petroluem products. DEQ believes it is highly unlikely that such concentrations will ever be encountered.
ND: not detected above method reporting limits

Table 7 – November 2006 Soil Sample Laboratory Analytical Results

Summary of Soil Sample Chemical Analytical Data: VOCs
Con-Way Property
Portland, Oregon

Sample I.D.	Date	VOCs Using EPA Method 8260B (mg/Kg)									
		1,2,4-TMB	1,3,5-TMB	4-Isopropyltoluene	Isopropylbenzene	Methylene Chloride	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	tert-Butylbenzene	Others
GP-1(14-15)	11/03/06	17.300	3.570	3.870	0.620	ND<6.200	3.160	1.750	3.040	1.120	ND
GP-2(13.5-14.5)	11/03/06	ND<0.0293	ND<0.0293	ND<0.0293	ND<0.0293	1.710	ND<0.0293	ND<0.0293	ND<0.0293	ND<0.0293	ND
DEQ RBCs (mg/Kg)											
Soil Ingestion, Dermal Contact, and Inhalation (Occupational)		1,500	1,500	NE	51,000	NE	NE	19,000	NE	NE	varies
Soil Ingestion, Dermal Contact, and Inhalation (Construction Worker)		1,400	1,400	NE	24,000	NE	NE	9,300	NE	NE	varies
Soil Ingestion, Dermal Contact, and Inhalation (Excavation Worker)		40,000	40,000	NE	>Max	NE	NE	>Max	NE	NE	varies
Volatilization to Outdoor Air (Occupational)		790	>Csat	NE	>Csat	NE	NE	>Csat	NE	NE	varies
Vapor Intrusion into Buildings (Occupational)		840	140	NE	>Csat	NE	NE	>Csat	NE	NE	varies
Leaching to Groundwater (Occupational)		55	12	NE	>Csat	NE	NE	>Csat	NE	NE	varies

Notes:
Chemical analyses performed by Apex Laboratories, LLC of Tigard, Oregon.
>Csat: This soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of Csat indicate that free product might be present.
>Max: The constituent RBC for this pathway is greater than 100,000 mg/Kg. The TPH RBC is greater than the maximum amount that would be present if all of the initial air space is filled with petroluem products. DEQ believes it is highly unlikely that such concentrations will ever be encountered.
ND: not detected above method reporting limits

Table 8 – 1999 – 2011 Water Sample Laboratory Analytical Results

Summary of Groundwater Chemical Analytical Data
Con-Way, Inc. Property
Portland, Oregon

Well I.D./ Sample Number	Date	Depth to Water (feet BGS)	Groundwater Elevation (feet above MSL)	VOCs by EPA Method 8260B (µg/L)							
				TCE	PCE	Carbon Tetrachloride	1,1,1-TCA	Chloroform	cis-1,2-DCE	1,1-DCA	Others
MW-1	06/26/99	52.20	18.79	1.53	ND<1.00	ND<1.00	ND<1.0	ND	ND	ND	ND
	08/14/01	56.96	14.03	ND<1.00	ND<1.00	ND<1.00	ND<1.0	ND	ND	ND	ND
	10/27/06	66.44	4.55	--	--	--	--	--	--	--	--
	04/05/07	61.14	9.85	9.50	1.47	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND
	04/14/08	57.60	13.39	6.71	0.920	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	08/31/10	57.60	13.39	3.64	0.670	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND
MW-2	06/26/99	44.65	18.86	4.13	ND<1.00	ND<1.00	ND<1.0	ND	ND	ND	ND
	08/14/01	49.44	14.07	ND<1.00	ND<1.00	1.19	ND<1.0	ND	ND	ND	ND
	10/27/06	NA	NA	--	--	--	--	--	--	--	--
	04/05/07	57.20	6.31	7.84	0.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	04/14/08	50.18	13.33	5.36	0.63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	08/31/10	50.00	13.51	3.82	0.650	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND
MW-3	06/26/99	47.10	19.77	5.24	ND<1.00	ND<1.00	ND<1.0	ND	ND	ND	ND
	08/14/01	52.84	14.03	ND<1.00	ND<1.00	ND<1.00	ND<1.0	ND	ND	ND	ND
	10/27/06	NA	NA	--	--	--	--	--	--	--	--
	04/05/07	54.10	12.77	3.15	0.79	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	04/14/08	53.50	13.37	3.93	0.730	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	08/31/10	53.45	13.42	2.71	0.750	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND
MW-4	06/26/99	45.80	18.82	39.30	2.88	ND<1.00	ND<1.0	ND	ND	ND	ND
	08/14/01	50.74	13.88	9.68	2.80	ND<1.00	ND<1.0	ND	ND	ND	ND
	10/27/06	60.07	4.55	13.60	2.47	ND<1.00	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	04/05/07	55.00	9.62	16.80	2.78	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	04/14/08	51.26	13.36	18.90	1.87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	06/16/09	50.05	14.57	28.60	4.66	ND<0.5	0.9	ND<1.0	ND<0.5	ND<0.5	ND
	08/31/10	51.20	13.42	39.7	7.30	ND<0.5	0.790	ND<1.0	0.510	0.550	ND
GP-4	06/16/09	NA	NA	7.70	2.27	ND<0.5	ND<0.5	1.38	ND<0.5	ND<0.5	ND
GP-5	06/16/09	NA	NA	43.60	4.72	ND<0.5	0.81	ND<1.0	0.77	0.68	ND
GP-6	06/16/09	NA	NA	23.70	2.08	ND<0.5	0.63	ND<1.0	ND<0.5	ND<0.5	ND
GP-7	06/16/09	NA	NA	2.91	2.58	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND
GP-8	08/31/10	NA	NA	20.2	5.05	ND<0.5	0.530	ND<1.0	ND<0.5	ND<0.5	ND
GP-9	08/31/10	NA	NA	47.3	5.97	ND<0.5	0.810	ND<1.0	1.00	0.780	ND
DP-1W	08/18/11	NA	NA	6.60	1.69	ND<0.5	ND<0.5	ND<1.0	ND<1.0	ND<0.5	see lab report
DP-3W	08/18/11	NA	NA	12.0	1.52	ND<0.5	ND<0.5	ND<1.0	ND<1.0	ND<0.5	see lab report

Table 8 – 1999 – 2011 Water Sample Laboratory Analytical Results (cont'd)

Summary of Groundwater Chemical Analytical Data
Con-Way, Inc. Property
Portland, Oregon

Well I.D./ Sample Number	Date	Depth to Water (feet BGS)	Groundwater Elevation (feet above MSL)	VOCs by EPA Method 8260B (µg/L)							
				TCE	PCE	Carbon Tetrachloride	1,1,1-TCA	Chloroform	cis-1,2-DCE	1,1-DCA	Others
DEQ RBCs (µg/L)											
Ingestion and Inhalation from Tap Water											
Urban Residential				1.7	0.34	1.7	18,000	0.98	150	11	varies
Occupational				3.6	0.64	2.4	38,000	0.99	290	13	varies
Volatilization to Outdoor Air											
Urban Residential				6,600	5,000	2,900	>S	3,000	>S	40,000	varies
Occupational				19,000	9,200	5,400	>S	5,500	>S	73,000	varies
Vapor Intrusion into Buildings											
Urban Residential				380	260	140	1,200,000	220	>S	2,900	varies
Occupational				3,300	1,400	790	>S	1,200	>S	16,000	varies
Groundwater in Excavation				430	240	1,700	1,100,000	720	24,000	10,000	varies

Notes:
1999 and 2001 samples analyzed by Specialty Analytical, Inc. of Tualatin, Oregon. 2006 samples analyzed by Test America of Beaverton, Oregon. 2007 through 2010 samples analyzed by Apex Laboratories, LLC of Tigard, Oregon.
--: not analyzed
BGS: below ground surface
DCA: dichloroethane
DCE: dichloroethene
DEQ: Oregon Department of Environmental Quality
EPA: U.S. Environmental Protection Agency
MSL: mean sea level
NA: not applicable
ND: not detected above laboratory method reporting limit
PCE: tetrachloroethene
RBC: risk-based concentration
>S: This groundwater RBC exceeds the solubility limit.
TCA: trichloroethane
TCE: trichloroethene
µg/L: micrograms per liter
VOC: volatile organic compound

Table 10
April 2022-January 2023 Summary Soil Sample Laboratory Analytical Results
Block 290 West

Portland ,Oregon

AREA	Inset Map Figure #	Map ID	Sample Date	Sample ID (Chain of Custody)	Notes	Lab report # ends in " "	Estimated Sample Depth (below nearest sidewalk grade)	Hydrocarbon Identification Screen - Gasoline Range Organics*	Hydrocarbon Identification Screen - Diesel Range Organics*	Hydrocarbon Identification Screen - Oil Range Organics*	Total Petroleum Hydrocarbons-Gasoline (GRO/Gx)	Total Petroleum Hydrocarbons-Diesel (DRO/Dx)	Total Petroleum Hydrocarbons-Heavy Oil (RRO)
							feet	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Construction Phase													
Pile Location N21 - 4	3-2	S1	4/5/2022	N21-4	Construction Phase, Pile N21, 4-ft below street grade, sidewall	201	4	nd	nd	nd	-	-	-
Pile Location N24-1	3-2	S2	4/5/2022	N24-1	Construction Phase, Pile N24, 1-ft below street grade, sidewall	201	1	nd	nd	nd	-	-	-
Pile Location N24-3	3-2	S3	4/15/2022	N24-3	Construction Phase, Pile N24, 3-ft below street grade, sidewall	620	3	nd	nd	**det**	-	nd	nd
Pile Location N25-3	3-2	S4	4/15/2022	N25-3	Construction Phase, Pile N25, 1-ft below street grade, sidewall	620	1	nd	nd	nd	-	-	-
Pile Location S13-5	3-2	S5	4/21/2022	S13-5	Construction Phase, Pile S13, 5-ft below street grade, sidewall	899	5	nd	nd	nd	-	-	-
Pile Location W27-5	3-2	S6	4/21/2022	W27-5	Construction Phase, Pile W21, 5-ft below street grade, sidewall	899	5	nd	nd	nd	-	-	-
Pile Location W2-10	3-2	S7	4/21/2022	W2-10	Construction Phase, Pile W2, 10-ft below street grade, sidewall	899	10	nd	nd	nd	-	-	-
Pile Location N2-4	3-2	S8	4/21/2022	N2-4	Construction Phase, Pile N2, 4-ft below street grade, sidewall	899	4	nd	nd	nd	-	-	-
Pile Location S20-10	3-2	S9	4/21/2022	S20-10	Construction Phase, Pile S20, 10-ft below street grade, sidewall	899	10	nd	nd	nd	-	-	-
Pile Location S9-5	3-2	S10	4/21/2022	S9-5	Construction Phase, Pile S9, 5-ft below street grade, sidewall	899	5	nd	nd	nd	-	-	-
Pile Location S24-10	3-2	S11	4/21/2022	S24-10	Construction Phase, Pile S24, 10-ft below street grade, sidewall	899	10	nd	nd	nd	-	-	-
Pile Location S16-11	3-2	S12	4/21/2022	S16-11	Construction Phase, Pile S16, 11-ft below street grade, sidewall	899	11	nd	nd	nd	-	-	-
Pile Location W6-10	3-2	S13	4/21/2022	W6-10	Construction Phase, Pile W6, 10-ft below street grade, sidewall	899	10	nd	nd	nd	-	-	-
Pile Location N6-5	3-2	S14	4/21/2022	N6-5	Construction Phase, Pile N6, 5-ft below street grade, sidewall	899	5	nd	nd	nd	-	-	-
Pile Location W3-5	3-2	S15	4/21/2022	W3-5	Construction Phase, Pile W3, 5-ft below street grade, sidewall	899	5	nd	nd	nd	-	-	-
Pile Location W10-15	3-2	S16	4/28/2022	W10-15	Construction Phase, Pile W10, 15-ft below street grade, sidewall	166	15	nd	nd	nd	-	-	-
Pile Location S21-16.75	3-2	S17	4/28/2022	S21-16.75	Construction Phase, Pile S21, 16.75-ft below street grade, sidewall	166	16.75	nd	nd	nd	-	-	-
Pile Location S16-S15-16.75	3-2	S18	4/28/2022	S16-S15-16.75	Construction Phase, Pile S16-S15, 16.75-ft below street grade, sidewall	166	16.75	nd	nd	nd	-	-	-
Pile Location N2-4	3-2	S19	4/28/2022	N2-4	Construction Phase, Pile N2, 4-ft below street grade, sidewall	166	4	nd	nd	nd	-	-	-
Pile Location W4-16	3-2	S20	4/28/2022	W4-16	Construction Phase, Pile W4, 16-ft below street grade, sidewall	166	16	nd	nd	nd	-	-	-
Pile Location E2-3	3-2	S21	4/28/2022	E2-3	Construction Phase, Pile E2, 3-ft below street grade, sidewall	166	3	nd	nd	nd	-	-	-
Pile Location W23-16.75	3-2	S22	4/28/2022	W23-16.75	Construction Phase, Pile W23,16.75-ft below street grade, sidewall	166	16.75	nd	nd	nd	-	-	-
Pile Location N16-5	3-2	S23	4/28/2022	N16-5	Construction Phase, Pile N16, 5-ft below street grade, sidewall	166	5	nd	nd	nd	-	-	-
Pile Location N11-7	3-2	S24	4/28/2022	N11-7	Construction Phase, Pile N11, 7-ft below street grade, sidewall	166	7	nd	nd	nd	-	-	-
Pile Location S26-16	3-2	S25	4/29/2022	S26-16	Construction Phase, Pile S26, 16-ft below street grade, sidewall	166	16	nd	nd	nd	-	-	-
Pile Location W23-5	3-2	S26	4/29/2022	W23-5	Construction Phase, Pile W23, 5-ft below street grade, sidewall	166	5	nd	nd	nd	-	-	-
SW Corner	3-2	S27	5/2/2022	S19/W9	Construction Phase, SW Corner,Subgrade	190	17	nd	nd	nd	-	-	-
SW Corner	3-2	S28	5/2/2022	S16/W4	Construction Phase, SW Corner, subgrade	190	17	nd	nd	nd	-	-	-
SW Corner	3-2	S29	5/2/2022	S11/W6	Construction Phase, SW Corner, subgrade	190	17	nd	nd	nd	-	-	-
Pile Location S11-15	3-2	S30	5/2/2022	S11	Construction Phase, S11, 15-ft below street grade, sidewall	190	15	nd	nd	nd	-	-	-
Pile Location W7-15	3-2	S31	5/2/2022	W7	Construction Phase, W7, 15-ft below street grade, sidewall	190	15	nd	nd	nd	-	-	-
SW Corner	3-2	S32	5/2/2022	S16/W7	Construction Phase, SW Corner, subgrade	190	17	nd	nd	nd	-	-	-
SW Corner	3-2	S33	5/2/2022	S19/W4	Construction Phase, SW Corner, subgrade	190	17	nd	nd	nd	-	-	-
Pile Location S20-S21-15	3-2	S34	5/2/2022	S20-S21-15	Construction Phase, S20-S21, 15-ft below street grade, sidewall	190	15	nd	nd	nd	-	-	-
Pile Location W13-15	3-2	S35	5/2/2022	W13-15	Construction Phase, W13, 15-ft below street grade, sidewall	190	15	nd	nd	nd	-	-	-
SW Corner	3-2	S36	5/4/2022	S11/W4	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
SW Corner	3-2	S37	5/4/2022	S22/W15	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
SW Corner	3-2	S38	5/4/2022	S26/W15	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
SW Corner	3-2	S39	5/4/2022	S16/W15	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
SW Corner	3-2	S40	5/4/2022	S22/W5	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
Pile Location W16-13	3-2	S41	5/5/2022	W16-13	Construction Phase, W16, 13-ft below street grade, sidewall	249	13	nd	nd	nd	-	-	-
Pile Location N5-10	3-2	S42	5/5/2022	N5-10	Construction Phase, N5, 10-ft below street grade, sidewall	249	10	nd	nd	nd	-	-	-
Pile Location W23-15	3-2	S43	5/5/2022	W23-15	Construction Phase, W23, 15-ft below street grade, sidewall	249	15	nd	nd	nd	-	-	-
Pile Location N3-13	3-2	S44	5/5/2022	N3-13	Construction Phase, N3, 13-ft below street grade, sidewall	249	13	nd	nd	nd	-	-	-
Pile Location W18-12	3-2	S45	5/4/2022	W18-12	Construction Phase, W18, 12-ft below street grade, sidewall	249	12	nd	nd	nd	-	-	-
SW Corner	3-2	S46	5/4/2022	W5/S26	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
Pile Location N9-9	3-2	S47	5/6/2022	N9-9	Construction Phase, N9, 9-ft below street grade, sidewall	249	9	nd	nd	nd	-	-	-
SW Corner	3-2	S48	5/4/2022	S26/W2	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
SW Corner	3-2	S49	5/4/2022	S23/W1	Construction Phase, SW Corner, subgrade	249	17	nd	nd	nd	-	-	-
Pile Location N5-13	3-2	S50	5/5/2022	N5-13	Construction Phase, N5, 13-ft below street grade, sidewall	249	13	nd	nd	nd	-	-	-
Pile Location N16-7	3-2	S51	5/6/2022	N16-7	Construction Phase, N16, 13-ft below street grade, sidewall	249	13	nd	nd	nd	-	-	-
Pile Location N10-16	3-2	S52	5/9/2022	N10-16	Construction Phase, N10, 16-ft below street grade, sidewall	336	16	nd	nd	nd	-	-	-
NW Corner	3-2	S53	5/9/2022	N5/W21	Construction Phase, NW Corner, subgrade	336	17	nd	nd	nd	-	-	-
NW Corner	3-2	S54	5/9/2022	N9/W26	Construction Phase, NW Corner, subgrade	336	17	nd	nd	nd	-	-	-
NW Corner	3-2	S55	5/9/2022	N2/W16	Construction Phase, NW Corner, subgrade	336	17	nd	nd	nd	-	-	-
Pile Location N15-10	3-2	S56	5/9/2022	N15-10	Construction Phase, N15, 10-ft below street grade, sidewall	336	10	nd	nd	nd	-	-	-
Pile Location N13-10	3-2	S57	5/9/2022	N13-10	Construction Phase, N13, 10-ft below street grade, sidewall	336	10	nd	nd	nd	-	-	-
Pile Location N15-13	3-2	S58	5/9/2022	N15-13	Construction Phase, N15, 13-ft below street grade, sidewall	336	13	nd	nd	nd	-	-	-
NW Corner	3-2	S59	5/9/2022	N12/W16-15	Construction Phase, NW Corner, subgrade	336	15	nd	nd	nd	-	-	-
NW Corner	3-2	S60	5/9/2022	N7/W20	Construction Phase, NW Corner, subgrade	336	17	nd	nd	nd	-	-	-
Pile Location N13-12	3-2	S61	5/9/2022	N13-12	Construction Phase, N13, 12-ft below street grade, sidewall	336	12	nd	nd	nd	-	-	-
Pile Location N9-15	3-2	S62	5/9/2022	N9-15	Construction Phase, N9, 15-ft below street grade, sidewall	336	15	nd	nd	nd	-	-	-
NW Corner	3-2	S63	5/9/2022	N10/W21	Construction Phase, NW Corner, subgrade	336	17	nd	nd	nd	-	-	-
NW Corner	3-2	S64	5/9/2022	N9/W28	Construction Phase, NW Corner, subgrade	336	17	nd	nd	nd	-	-	-
Pile Location N20-12	3-2	S65	5/9/2022	N20-12	Construction Phase, N20, 12-ft below street grade, sidewall	336	12	nd	nd	nd	-	-	-
Pile Location N15-15	3-2	S66	5/16/2022	N15-15	Construction Phase, N15, 15-ft below street grade, sidewall	589	15	nd	nd	nd	-	-	-
Pile Location N9-15	3-2	S67	5/16/2022	N9-15	Construction Phase, N9, 15-ft below street grade, sidewall	589	15	nd	nd	nd	-	-	-
NW Corner	3-2	S68	5/16/2022	N9/W28	Construction Phase, NW Corner, subgrade	589	17	nd	nd	nd	-	-	-
NW Corner	3-2	S69	5/16/2022	N15/W28	Construction Phase, NW Corner, subgrade	589	17	nd	nd	nd	-	-	-
Pile Location N20-15	3-2	S70	5/16/2022	N20-15	Construction Phase, N20, 15-ft below street grade, sidewall	589	15	nd	nd	nd	-	-	-
Pile Location N22-15	3-2	S71	5/16/2022	N22-15	Construction Phase, N22, 15-ft below street grade, sidewall	589	15	nd	nd	nd	-	-	-
Pile Location E3-7	3-2	S72	5/16/2022	E3-7	Construction Phase, E3, 7-ft below street grade, sidewall	589	7	nd	nd	nd	-	-	-
Pile Location E5-7	3-2	S73	5/16/2022	E5-7	Construction Phase, E5, 7-ft below street grade, sidewall	589	7	nd	nd	nd	-	-	-
NW Corner	3-2	S74	5/16/2022	N13/W18	Construction Phase, NW Corner, subgrade	589	17	nd	nd	nd	-	-	-
NW Corner	3-2	S75	5/16/2022	N20/W28	Construction Phase, NE Corner, subgrade	589	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S76	5/16/2022	N19/E6	Construction Phase, NE Corner, subgrade	589	15	nd	nd	nd	-	-	-
NW Corner	3-2	S77	5/16/2022	N17/W18	Construction Phase, NE Corner, subgrade	589	15	nd	nd	nd	-	-	-
NE Corrner	3-2	S78	5/16/2022	N13/E9	Construction Phase, NE Corner, subgrade	589	15	nd	nd	nd	-	-	-
NW Corner	3-2	S79	5/16/2022	N20/W12	Construction Phase, SE Corner, subgrade	589	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S80	5/16/2022	N13/E1	Construction Phase, NW Corner, subgrade	589	15	nd	nd	nd	-	-	-
NW Corner	3-2	S81	5/16/2022	N13/W13	Construction Phase, SW Corner, subgrade	589	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S82	5/16/2022	N19/E1	Construction Phase, NE Corner, subgrade	589	15	nd	nd	nd	-	-	-
NE Corrner	3-2	S83	5/18/2022	N22/E13	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
NE Corrner	3-2	S84	5/18/2022	N23/E2	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-

Table 9
Summary of Contaminants - Remaining In Place Soil on Property
Block 290 West

Portland ,Oregon

AREA	Inset Map Figure #	Map ID	Sample Date	Sample ID (Chain of Custody)	Notes	Lab report # ends in " "	Estimated Sample Depth (below nearest sidewalk grade)	Hydrocarbon Identification Screen - Gasoline Range Organics*	Hydrocarbon Identification Screen - Diesel Range Organics*	Hydrocarbon Identification Screen - Oil Range Organics*	Total Petroleum Hydrocarbons-Gasoline (GRO/Gx)	Total Petroleum Hydrocarbons-Diesel (DRO/Dx)	Total Petroleum Hydrocarbons-Heavy Oil (RRO)
							feet	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pile Location E11-3	3-2	S85	5/18/2022	E11-3	Construction Phase, E11, 3-ft below street grade, sidewall	784	3	nd	nd	nd	-	-	-
NE Corrner	3-2	S86	5/18/2022	N17/E13	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
Pile Location E16-3	3-2	S87	5/18/2022	E16-3	Construction Phase, E16, 3-ft below street grade, sidewall	784	3	nd	nd	nd	-	-	-
NE Corrner	3-2	S88	5/18/2022	N18/E1	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
NE Corrner	3-2	S89	5/20/2022	N22/E1	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
Pile Location N22-13	3-2	S90	5/20/2022	N22-13	Construction Phase, N22, 13-ft below street grade, sidewall	784	13	nd	nd	nd	-	-	-
Pile Location N25-13	3-2	S91	5/20/2022	N25-13	Construction Phase, N25, 13-ft below street grade, sidewall	784	13	nd	nd	nd	-	-	-
NE Corrner	3-2	S92	5/20/2022	N25/E1	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
NE Corrner	3-2	S93	5/20/2022	N22/E6	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
Pile Location E7-9	3-2	S94	5/20/2022	E7-9	Construction Phase, E7, 9-ft below street grade, sidewall	784	9	nd	nd	nd	-	-	-
Pile Location E2-11	3-2	S95	5/20/2022	E2-11	Construction Phase, E2, 11-ft below street grade, sidewall	784	11	nd	nd	nd	-	-	-
NE Corrner	3-2	S96	5/20/2022	N26/E2	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
NE Corrner	3-2	S97	5/20/2022	N26/E7	Construction Phase, NE Corner, subgrade	784	15	nd	nd	nd	-	-	-
Pile Location E21-10	3-2	S98	6/2/2022	E21-10	Construction Phase, E21, 10-ft below street grade, sidewall	51	10	nd	nd	nd	-	-	-
Pile Location E26-6	3-2	S99	6/2/2022	E26-6	Construction Phase, E26, 6-ft below street grade, sidewall	51	6	nd	nd	nd	-	-	-
Pile Location E18-10	3-2	S100	6/2/2022	E18-10	Construction Phase, E18, 10-ft below street grade, sidewall	51	10	nd	nd	nd	-	-	-
Pile Location S2-5	3-2	S101	6/2/2022	S2-5	Construction Phase, S2, 5-ft below street grade, sidewall	51	5	nd	nd	nd	-	-	-
Pile Location S7-8	3-2	S102	6/2/2022	S7-8	Construction Phase, S7, 8-ft below street grade, sidewall	51	8	nd	nd	nd	-	-	-
Pile Location S5-12	3-2	S103	6/7/2022	S5-12	Construction Phase, S5, 12-ft below street grade, sidewall	369	12	nd	nd	nd	-	-	-
Pile Location S7-12	3-2	S104	6/7/2022	S7-12	Construction Phase, S7, 12-ft below street grade, sidewall	369	12	nd	nd	nd	-	-	-
Pile Location E5-14	3-2	S105	6/7/2022	E5-14	Construction Phase, E5, 14-ft below street grade, sidewall	369	14	nd	nd	nd	-	-	-
Pile Location S3-12	3-2	S106	6/7/2022	S3-12	Construction Phase, S3, 12-ft below street grade, sidewall	369	12	nd	nd	nd	-	-	-
Pile Location S1-12	3-2	S107	6/7/2022	S1-12	Construction Phase, S1, 12-ft below street grade, sidewall	369	12	nd	nd	nd	-	-	-
NE Corrner	3-2	S108	6/7/2022	N23/E19	Construction Phase, NE Corner, subgrade	369	15	nd	nd	nd	-	-	-
SE Corner	3-2	S109	6/7/2022	S1/E23	Construction Phase, SE Corner, subgrade	369	18	nd	nd	nd	-	-	-
NE Corrner	3-2	S110	6/7/2022	N22/E24	Construction Phase, NE Corner, subgrade	369	18	nd	nd	nd	-	-	-
NW Corner	3-2	S111	6/13/2022	N5/W26	Construction Phase, NW Corner, subgrade	526	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S112	6/13/2022	N18/E18	Construction Phase, NE Corner, subgrade	526	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S113	6/13/2022	N19/E7	Construction Phase, NE Corner, subgrade	526	17	nd	nd	nd	-	-	-
NW Corner	3-2	S114	6/13/2022	N5/W24	Construction Phase, NW Corner, subgrade	526	17	nd	nd	nd	-	-	-
SE Corner	3-2	S115	6/13/2022	S6/E29	Construction Phase, SE Corner, subgrade	526	17	nd	nd	nd	-	-	-
NW Corner	3-2	S116	6/13/2022	N5/W13	Construction Phase, NW Corner, subgrade	526	17	nd	nd	nd	-	-	-
NW Corner	3-2	S117	6/13/2022	N9/W13	Construction Phase, NW Corner, subgrade	526	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S118	6/13/2022	N19/E10	Construction Phase, NE Corner, subgrade	526	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S119	6/13/2022	N18/E5	Construction Phase, NE Corner, subgrade	526	17	nd	nd	nd	-	-	-
NE Corrner	3-2	S120	6/13/2022	N17/E9	Construction Phase, NE Corner, subgrade	526	17	nd	nd	nd	-	-	-
SE Corner	3-2	S121	6/13/2022	S6/E25	Construction Phase, SE Corner, subgrade	526	17	nd	nd	nd	-	-	-
NW Corner	3-2	S122	6/13/2022	N5/W16	Construction Phase, NW Corner, subgrade	526	17	nd	nd	nd	-	-	-
SE Corner	3-2	S123	6/20/2022	S1/E24	Construction Phase, SE Corner, subgrade	693	17	nd	nd	nd	-	-	-
SE Corner	3-2	S124	6/20/2022	S4/E24	Construction Phase, SE Corner, subgrade	693	17	nd	nd	nd	-	-	-
Pile Location S4	3-2	S125	6/20/2022	S4	Construction Phase, S4, subgrade	693	17	nd	nd	nd	-	-	-
Pile Location S1.5-15	3-2	S126	6/20/2022	S1.5-15	Construction Phase, S1.5, 15-ft below street grade, sidewall	693	15	nd	nd	nd	-	-	-
Pile Location S1.5	3-2	S127	6/20/2022	S1.5	Construction Phase, S1.5, subgrade	693	17	nd	nd	nd	-	-	-
SE Corner	3-2	S128	6/20/2022	S1/E24-15	Construction Phase, SE Corner, subgrade	693	17	nd	nd	nd	-	-	-
Pile Location S4-15	3-2	S129	6/20/2022	S4-15	Construction Phase, S4, 15-ft below street grade, sidewall	693	15	nd	nd	nd	-	-	-
5 ft SE from SE Corner	3-2	S130	10/5/2022	SE Corner	Construction Phase, SE Corner, subgrade	182	2.5	nd	nd	nd	-	-	-
3 ft W from Pile Location W26	3-2	S131	10/5/2022	W26	Construction Phase, W26, sidewall	182	4	nd	nd	nd	-	-	-
3 ft W from Pile Location W14	3-2	S132	10/5/2022	W14	Construction Phase, W14, sidewall	182	3	nd	nd	nd	-	-	-
5 ft S from Pile Location S14	3-2	S133	10/5/2022	S14	Construction Phase, S14, sidewall	182	3.5	nd	nd	nd	-	-	-
3 ft NW of NW Corner	3-2	S134	10/5/2022	NW Corner	Construction Phase, NW corner, subgrade	182	4	nd	nd	nd	-	-	-
3 ft N of Pile Location N1	3-2	S135	10/5/2022	N1	Construction Phase, N1, sidewall	182	4	nd	nd	nd	-	-	-
3 ft SW of SW Corner	3-2	S136	10/5/2022	SW Corner	Construction Phase, SW Corner, sidewall	182	5	nd	nd	nd	-	-	-
North Utility Vault near N7	3-2	S137	11/2/2022	N7	Construction Phase, N7, sidewall	185	2	nd	nd	nd	-	-	-
North Utility Vault near N7	3-2	S138	11/2/2022	N7	Construction Phase, N7, subgrade	185	4	nd	nd	nd	-	-	-
Oil Water Separator (prior to removal)													
10 ft E of Pile Location E13	3-2	S139	11/11/2022	E13	Construction Phase, construction of utility line, east property line, sidewall. See UA Report for further detail and testing.	528	4	nd	nd	nd	-	-	-
10 ft E of Pile Location E15	3-2	S140	11/14/2022	E15	Construction Phase, construction of utility line, east property line, sidewall. See UA Report for further detail and testing.	528	4	nd	nd	nd	-	-	-
10 ft E of Pile Location E18	3-2	S141	11/14/2022	E18	Construction Phase, construction of utility line, east property line, sidewall. See UA Report for further detail and testing.	528	4	nd	nd	nd	-	-	-
Drywell Installation													
Drywell 5	3-2	S142	12/21/2022	DW5	Construction Phase, northeast corner of property	955	35	nd	nd	nd	-	-	-
Drywell 4	3-2	S143	1/5/2023	DW 4	Construction Phase, northeast corner of property	233	2.5	nd	nd	nd	-	-	-
Drywell 4	3-2	S144	1/5/2023	DW 4	Construction Phase, northeast corner of property	233	35	nd	nd	nd	-	-	-
Drywell 3	3-2	S145	1/6/2023	DW 3	Construction Phase, northeast corner of property	233	2.5	nd	nd	nd	-	-	-
Drywell 3	3-2	S146	1/6/2023	DW 3	Construction Phase, northeast corner of property	233	35	nd	nd	nd	-	-	-
Interceptor 13	3-2	S147	1/5/2003	Interceptor	Construction Phase, northeast corner of property	233	13	nd	nd	nd	-	-	-
NW Pettygrove Street Utility													
NW Pettygrove Street ROW	3-2	S148	10/28/2022	TN-S1	Construction Phase, ROW, southeast of property	959	1	nd	nd	nd	-	-	-
NW Pettygrove Street ROW	3-2	S149	10/28/2022	TN-S2	Construction Phase, ROW, southeast of property	959	1	nd	nd	nd	-	-	-
NW Pettygrove Street ROW	3-2	S150	10/28/2022	TN-S3	Construction Phase, ROW, southeast of property	959	1	nd	**det**	**det**	-	nd	**4,190**
NW Pettygrove Street ROW	3-2	S151	10/28/2022	TN-S4	Construction Phase, ROW, southeast of property	959	1	nd	nd	nd	-	-	-
NW Pettygrove Street	3-2	S152	11/17/2022	ROW SE Corner	Construction Phase, utlility connection to city, southeast of property	677	6	nd	**det**	nd	-	**1,050**	nd
NW Pettygrove Street	3-2	S153	11/17/2022	ROW SE Corner	Construction Phase, utlility connection to city, southeast of property	677	3	nd	**det**	nd	-	**1,210**	nd
NW Pettygrove Street	3-2	S154	11/17/2022	ROW SE Corner	Construction Phase, utlility connection to city, southeast of property	677	2	nd	nd	nd	-	-	-
NW Pettygrove Street	3-2	S155	11/17/2022	ROW SE Corner	Construction Phase, utlility connection to city, southeast of property	677	4	nd	**det**	nd	-	**1,660**	nd
NW Pettygrove Street	3-2	S156	11/17/2022	ROW SE Corner	Construction Phase, utlility connection to city, southeast of property	677	5	nd	**det**	nd	-	**1,040**	nd
NW Pettygrove Street	3-2	S157	1/18/2023	ROW SE Corner	Construction Phase, utlility connection to city, southeast of property	233	1.2	nd	nd	nd	-	-	-
					Method Reporting Limit ^			26.3	64.8	130	26.3	27	55
					Risk Based Decision Making (RBDM) Screening Level for Soil for Vapor Intrusion into Buildings - Urban Residential (ppm)			n/a	n/a	n/a	94	>Max	>Max
					Risk Based Decision Making (RBDM) Screening Level for Soil for Leaching to Groundwater - Urban Residential (ppm)			n/a	n/a	n/a	31	9,500	>Max
					Risk Based Decision Making (RBDM) Screening Level for Soil Ingestion, Dermal Contact & Inhalation - Urban Residential (ppm)			n/a	n/a	n/a	2,500	2,200	5,700
					Risk Based Decision Making (RBDM) Screening Level for Soil Ingestion, Dermal Contact & Inhalation - Construction Worker (ppm)			n/a	n/a	n/a	9,700	4,600	11,000

Table 9
Summary of Contaminants - Remaining In Place Soil on Property
Block 290 West

Portland ,Oregon

AREA	Inset Map Figure #	Map ID	Sample Date	Sample ID (Chain of Custody)	Notes	Lab report # ends in " "	Estimated Sample Depth (below nearest sidewalk grade)	Hydrocarbon Identification Screen - Gasoline Range Organics*	Hydrocarbon Identification Screen - Diesel Range Organics*	Hydrocarbon Identification Screen - Oil Range Organics*	Total Petroleum Hydrocarbons-Gasoline (GRO/Gx)	Total Petroleum Hydrocarbons-Diesel (DRO/Dx)	Total Petroleum Hydrocarbons-Heavy Oil (RRO)
							feet	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Oregon DEQ Soil Matrix Cleanup Level - Level 3 (ppm)								n/a	n/a	n/a	130	1,000	n/a

Notes:

mg/kg = milligrams per kilogram (equivalent to parts per million [ppm]).
n/a = screening/cleanup level not applicable to this analytes.
nd = not detected at Method Reporting Limit.
>Max = risk-based concentration for this constituent is calculated as greater than 1,000,000 mg/kg (ppm), therefore, this substance is deemed not to pose risks in this scenario.
>Csat = soil RBC exceeds the limit of three-phase equilibrium partitioning.
Underlined and bold concentrations are above at least one of the screening levels.
- = sample was not analyzed for analyte
* = results for these analytes are indicated as a detection (det) or non-detection (nd), as Method NWTPH-HCID tests for detection of analyte.
^ = Method Reporting Limit values vary by sample - typical high end MRL shown - see analytical report for complete details.