INTERIM ACTION REPORT

Texaco Strickland Site

Prepared for: Strickland Real Estate Holdings, LLC and Chevron Environmental Management Company

PROJECT NO. 180357 • APRIL 26, 2023 FINAL

Aspect CONSULTING

earth + water

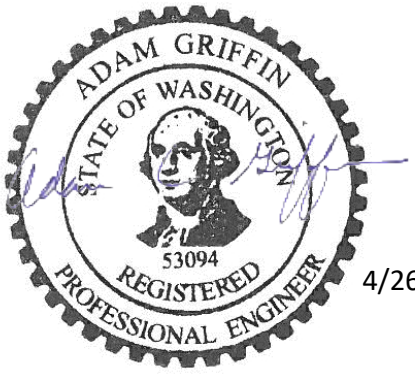
INTERIM ACTION REPORT

Texaco Strickland Site

Prepared for: Strickland Real Estate Holdings, LLC and Chevron Environmental Management Company

PROJECT NO. 180357 • APRIL 26, 2023 FINAL

Aspect Consulting, LLC



4/26/2023

Adam Griffin, PE
Associate Engineer
agriffin@aspectconsulting.com

Breeyn Greer, PE
Project Engineer
bgreer@aspectconsulting.com

Daniel Babcock, GIT
Project Geologist
dbabcock@aspectconsulting.com

V:\180357 Aloha Cafe\Deliverables\IA Report\Final\Interim Action Report_Final_04262023.docx

Contents

Acronyms ..... **iii**

1 Introduction **1**
1.1 IA Achievement Summary 1
1.2 Site Background 2
1.3 Site Geology 2
1.4 Interim Action Work Plan Definition and Objectives 3
1.5 IA Implementation and Responsibilities 4

2 Interim Action Activities Completed **6**
2.1 Site Preparation 6
2.1.1 Monitoring Well Decommissioning 6
2.1.2 Temporary Erosion and Sedimentation Controls 6
2.1.3 Building Demolition 6
2.1.4 Shoring Installation 7
2.2 Soil Removal and Performance Sampling 7
2.2.1 Field Oversight and Sampling Methods 7
2.2.2 UST Decommissioning and Removal 8
2.2.3 Excavation Extents and Performance Soil Sample Results 9
2.3 Water Management 12
2.4 Off-site Disposal of Contaminated Soil 12
2.5 Excavation Backfill 12

3 Soil Compliance **14**

4 References **15**

5 Limitations **16**

List of Tables

A Soil Remediation Levels (in text) 4
B Summary of USTs Removed (in text) 9
1 Excavation Bottom Soil – Performance Sampling Results
2 North Sidewall Soil – Performance Sampling Results
3 West Sidewall Soil – Performance Sampling Results
4 South Sidewall Soil – Performance Sampling Results
5 Overexcavated Soil Sampling Results (Removed from Site)

List of Figures

1 Vicinity Map
2 Bottom Sampling Results
3 North Sidewall Cross Section with Sampling Results
4 West Sidewall Cross Section with Sampling Results
5 South Sidewall Cross Section with Sampling Results
6 Groundwater Monitoring Network

List of Appendices

A City of Lynnwood Permits
B Well Decommissioning Logs
C Construction Plan Set
D Asbestos Containing Material Survey and Abatement
E Vapor Suppressant SDS
F Underground Storage Tank Decommissioning Records
G Laboratory Analytical Reports
H Construction Photo Log
I Data Validation Report
J Water Sample Results for Disposal and Tracking
K Soil Disposal Tracking
L Material Specifications and Import Clean Certification
M Geotechnical Construction Completion Letter

Acronyms

AO	Agreed Order
Aspect	Aspect Consulting, LLC
ASTM	ASTM International
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CDF	controlled-density fill
CEMC	Chevron Environmental Management Company
City	City of Lynnwood
COPCs	contaminants of potential concern
Ecology	Washington Department of Ecology
FS	Feasibility Study
IA	Interim Action
IAWP	Interim Action Work Plan
LNAPL	light non-aqueous phase liquid
mg/kg	milligrams/kilograms
MTCA	Model Toxics Control Act
PLPs	Potentially Liable Parties
RI	Remedial Investigation
ROW	right-of-way
SAP	Sampling Analysis Plan
TESC	temporary erosion and sediment control
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
TPHo	total petroleum hydrocarbons as oil
UST	underground storage tank
WAC	Washington Administrative Code

1 Introduction

Aspect Consulting, LLC (Aspect) has prepared this draft Interim Action (IA) Report (Report) on behalf of Strickland Real Estate Holdings, LLC (SREH) to document and report completion of the interim action (IA) conducted at the Texaco Strickland Site (the Site). The Site is located at 6808 196th Street SW in Lynnwood, Washington (the Property; Figure 1). The Site is defined as any area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located (Washington Administrative Code [WAC] 173-340-200). The Site is identified in the Washington State Department of Ecology's (Ecology) cleanup site database as the Texaco Strickland Site[1], Cleanup Site ID 12541, Facility ID 27496218, and underground storage tank (UST) site ID 6802.

Two potentially liable parties (PLPs), SREH and Chevron Environmental Management Company (CEMC), entered into Agreed Order (AO) No. 14315 with Ecology on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a PLP with regard to the Site[2]. The AO requires completion of a Remedial Investigation (RI), a Feasibility Study (FS), and a draft Cleanup Action Plan (dCAP) for the Site. The AO also allowed for this IA, which was defined and approved by Ecology in the Final Interim Action Work Plan (IAWP; Aspect, 2021).

1.1 IA Summary

The completed IA achieved the objectives established in the IAWP:

1. The light non-aqueous phase liquid (LNAPL) source of contamination at the Site was successfully completely removed from the Site.

2. Soil remediation levels were achieved at the excavation limits, to the extent practicable. A total of 41 excavation bottom soil performance samples were collected at the final excavation limits, and all 41 comply with the IA soil remediation levels. The northern excavation limit was excavated via vactor excavation to the maximum extent practicable at the Property boundary. The western excavation limit was also to the maximum extent practicable, as the western shoring wall was along the Property line (with minor offset for utilities).

3. The source of contamination to groundwater and soil gas was successfully removed, including both LNAPL and petroleum hydrocarbons in soil, and the potential source to potential off-Property soil vapor intrusion was also mitigated.

[1] The Site is also listed under the alternate site names of Aloha Café, Jiffy Lube 2068, Jiffy Lube Store 2068, Minit Lube 1102, Minit-Lube 1102, Quaker State Minit Lube 11 Lynnwood, Quaker State Minit Lube Inc 11 Lynnwood, Shell 6808, and Shell 6808 196th Lynnwood.
[2] The Jiffy Lube Store 2068 Site has the same Facility and UST IDs and Ecology Cleanup Site ID of 5805.

During the IA, a total of 14,437 tons of contaminated soil and 3,034 tons of clean soil was excavated and removed from the Property.

Photograph 1. *Final IA excavation extents as photographed prior to initiating backfill, looking southwest.*

This Report completes the AO requirements for the IA by presenting IAWP implementation methods and IA soil compliance results. The final cleanup action for the Site will be selected in the FS and dCAP.

1.2 Site Background

The Property is also referred to as Snohomish County Parcel No. 27042000200600 and is zoned as commercial. A gasoline service station operated at the Property for approximately 18 years (1957 to 1977). A Jiffy Lube facility operated at the Property for approximately 26 years (1977 to 2006). In 2006, the building was renovated into a restaurant, Aloha Café, which operated until 2018, at which time it was vacated to allow for remedial investigations.

Historical operations resulted in the release of petroleum hydrocarbons to the subsurface, impacting soil and groundwater on the Property. Ecology has determined that releases from the gasoline service station and the Jiffy Lube facility have commingled at the Site.

1.3 Site Geology

The geologic units at the Site as identified during the remedial investigations are:

- **Fill** was present in all borings starting at the surface and ranges from 4 to 10 feet thick and is comprised of sand with gravel and sand with silt and gravel.
- **Weathered Vashon Till** underlies the Fill unit and ranges from 2.5 to 15 feet thick. Weathered Vashon Till is differentiated from the underlying unweathered till based on blow counts and inferred density during the RI drilling.
- **Unweathered Vashon Till** was present in all borings to the maximum depth of exploration at the Site of 40.5 feet below ground surface (bgs) and was of variable composition of silt; sandy silt with gravel; silty sand; silty sand with gravel; sand with silt; sand with silt and gravel; and sand with gravel. The density of the till was consistent across the Site, ranging from medium dense at the fill-till interface to very dense within a few feet below the interface.

Groundwater is encountered at the Site at depths ranging from 7 to 15 feet bgs in the Vashon Till unit. Groundwater elevation at the time of the IA was approximately 435 feet NAVD88[3]. The horizontal hydraulic gradient is steep (5 percent). Groundwater flow at the Site is generally to the southwest, with seasonal variations.

A complete Site description and investigation summary is presented in the Final IAWP.

1.4 Interim Action Work Plan Definition and Objectives

Historical operations resulted in the release of petroleum hydrocarbons to the subsurface, impacting soil and groundwater at the Site. Contaminated groundwater has migrated off-Property. Remedial investigations identified LNAPL in monitoring wells at the Property. Gasoline LNAPL had accumulated at the groundwater interface and, prior to the IA, was a continuing source of contamination to the groundwater and soil gas at the Site. Therefore, a soil removal (excavation) IA was implemented to expedite the removal of contaminated soil and LNAPL and mitigate exposure pathways for the Site in accordance with the purpose of an "Interim Action" defined in the Model Toxics Control Act (MTCA; WAC 173-340-430 (1)).

The IA permanently removed sources of contamination to soil and groundwater and will not conflict with reasonable alternatives for the final cleanup action as required by MTCA (WAC 173-340-430[3][b]). The IA required demolition of the building, and shoring along the northern, western, and southern Property boundaries to remove the LNAPL source from the Property. The Final IAWP was approved by Ecology.

The IA objectives identified in the Final IAWP were as follows:

- Remove the LNAPL source of contamination at the Site.
- Achieve soil remediation levels at the excavation limits, to the extent practicable.
- Remove potential sources of contamination to groundwater and soil gas, mitigating potential off-Property soil vapor intrusion risks.

[3] North American Vertical Datum of 1988. All elevations referenced in this Report hereafter are relative to NAVD88.

Contaminants of Potential Concern (COPCs) at the Site were defined based on the analytical data collected during the RI activities. The following COPCs were identified for each media:

- **Soil**: benzene, toluene, ethylbenzene, xylenes (BTEX), Gasoline-, diesel-, and oil-range total petroleum hydrocarbons (TPHg, TPHd, and TPHo, respectively), and naphthalene
- **Groundwater**: BTEX, TPHg, TPHd, TPHo, and naphthalene
- **Soil Gas**: benzene, air-phase petroleum hydrocarbon (APH)

For the purposes of the IA, soil remediation levels were established. Because cleanup levels have not yet been determined for the Site, the IA targeted soil compliance with remediation levels in accordance with WAC 173-340-355 and 173-340-360. The soil remediation levels for Site COPCs are the MTCA Method A cleanup levels, as shown in Table A.

Table A. Soil Remediation Levels

Analyte	Soil Remediation Level (milligrams/kilograms)
TPHg	30
TPHd	2,000
TPHo	2,000
Benzene	0.03
Toluene	7
Ethylbenzene	6
Total Xylenes	9
Naphthalene	5

1.5 IA Implementation and Responsibilities

The IA was completed between August 26, 2022, and January 6, 2023. The IA construction sequence was as follows:

1. **Monitoring Well Decommissioning** was required to complete the IA. Decommissioning of wells within the planned IA construction footprint occurred on August 26, 2022.
2. **Building Demolition** was required to complete the IA. Demolition of the building occurred between September 8 and 9, 2022.
3. **Utility disconnection** was required to complete the IA. Utility disconnections occurred between August 30 and September 7, 2022
4. **Shoring Wall Construction** was necessary to complete the IA in order to achieve the IA objectives. The shoring wall was installed between September 30 and October 27, 2022.

5. **Excavation and Off-Site Disposal** of all excavated soil. Excavation activities occurred from September 22, 2022, to January 4, 2023.
6. **Water Management** was required to remove stormwater accumulated in the excavation. Water management occurred from October 21 to November 9, 2022.
7. **Backfill** of final excavation extents to restore original grade. Backfill occurred from November 2, 2022, to January 5, 2023.
8. **Engineering Controls** of construction fencing, signage, and traffic control to restrict human access and direct trucking traffic was implemented between August 30, 2022, and January 6, 2023.

The following parties were responsible for completing the IA:

- **City of Lynnwood.** The City issued the necessary construction permits and conducted construction inspections. The construction permits, which Tree Clearing – Class II, Grading, Water Capping, Right-of-way, Demolition – Commercial Structure, Sewer Capping, and Fire: Tank Decommissioning, are included in Appendix A.
- **Environmental Engineer.** Aspect prepared the Final IAWP and oversaw the IAWP implementation as SREH's representative.
- **Geotechnical Engineer.** Aspect prepared the Final Geotechnical Report (Aspect, 2022) and oversaw the shoring construction as SREH's representative. Aspect's geotechnical activities during construction are detailed in Appendix M.
- **Contractor.** River's Edge Environmental Services, Inc. (REES) was selected from a competitive bidding process as the general contractor for the IA construction. REES subcontracted other parties as necessary for the IA construction, including Kulchin for shoring construction and Pacific Rim Environmental Inc. (Pacific Rim) for the regulated building materials survey.
- **Disposal Facility.** All contaminated soil removed during the IA was transported to and disposed of at Cadman of Heidelberg Materials (Cadman) Class III Facility in Everett, Washington. Clean Soil was deposited at Cadman's clean aggregate facility in Granite Falls, Washington, and Core Infrastructure Services in Monroe, Washington. Groundwater removed from the excavation via dewatering was disposed of by Marine Vacuum Services Inc. (MarVac).

2 Interim Action Activities Completed

The IA was conducted between August 26, 2022, and January 6, 2023, in accordance with the Ecology-approved Final IAWP (Aspect, 2021). Section 1.3 presents the IA implementation responsibilities and timeline. The implementation activities are detailed further in the following subsections.

2.1 Site Preparation

Site preparation consisted of monitoring well decommissioning, temporary erosion and sedimentation control (TESC) installation, building demolition, and shoring wall installation.

2.1.1 Monitoring Well Decommissioning

Prior to IA earthwork activities, nine groundwater monitoring wells at the Site were decommissioned in accordance with WAC 173-160-460. Holt Services Inc. (Holt), a Washington State-licensed driller, completed the monitoring well decommissioning. Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-18, MW-20, MW-21, MW-22, MW-23, MW-24, and MW-25 (as shown in Appendix B) were decommissioned by filling the casing from bottom to land surface with bentonite. Holt was responsible for filing the well decommissioning records with Ecology. The well decommissioning logs are provided in Appendix B.

2.1.2 Temporary Erosion and Sedimentation Controls

Prior to excavation, a temporary chain-link fence was installed as the construction permit boundary to control access into the construction site. The fence provided a physical barrier between the construction activities and the adjacent right-of-way (ROW) and the public.

TESC measures for the remedial excavation were installed by REES and per the Plan Set, Sheet C-02 (Appendix C). TESC measures included storm drain inlet protection, stabilized construction entrance, and maintaining internally draining conditions, and utilization of 6 mil poly-vinyl sheeting to cover exposed disturbed soil slopes and line and cover stockpiles as needed.

2.1.3 Building Demolition

The existing building at the Site was demolished by REES in accordance with the City of Lynnwood demolition permit (DEMO-030556-2022). An Asbestos-Containing Materials (ACM) demolition survey was conducted by Pacific Rim in advance of demolition, and no regulated building materials requiring abatement before demolition were identified. The demolition survey is provided in Appendix D.

The building and its foundation elements were removed to the underlying fill soil. Demolished building materials were hauled to the Waste Management rail yard and disposed as construction debris under profile 138524OR.

2.1.4 Shoring Installation

Temporary shoring of the northern, western, and southern excavation limits was required to complete the IA excavation. As determined by the shoring alignment, the excavation limits were advanced to the maximum extent practicable. The practical limitations of soil excavation were (1) the ROW and utilities in the ROW at the northern excavation limits, (2) the adjacent property and building at the western excavation limits, and (3) the adjacent property and building at the southern excavation limits. The temporary shoring was designed to allow for the maximum areal extent of soil removal based on these practical constraints.

Soldier pile and lagging was the selected shoring type along the north, south, and west shoring walls. Soldier piles consisted of wide-flange steel beams set into vertically drilled shafts along the wall alignment, generally installed at 8 feet on center. A total of 41 soldier piles were installed; the deepest were installed to Elevation 411 feet.

As mass excavation was accomplished to specified elevations (referred to herein as "lifts"), timber lagging was installed behind the flanges of the steel beams to retain the soil located behind the wall. Controlled density fill (CDF) was placed behind the north and south shoring wall timber lagging, and pea gravel was placed behind the west shoring wall timber lagging.

Tiebacks were installed into the north and west shoring walls. Tiebacks, which consist of steel strands installed and pressure grouted into shafts drilled at a slight declination (generally about 15 to 25 degrees) from horizontal into soil behind the shoring wall, were installed, tested, and locked off to the nearest soldier pile to provide pullback support while the shoring wall supports the open excavation. There were 28 tiebacks installed and proof tested at Elevation 444 feet along the north and west shoring walls. An additional 11 tiebacks were installed and proof tested at Elevation 433 along the west shoring wall.

Installation of the shoring wall generated soil spoils from drilling vertical and horizontal shafts and facing the wall to expose the steel beams and flanges. Soil generated from shoring wall installation was handled as contaminated and disposed of as Class III petroleum-contaminated soil.

2.2 Soil Removal and Performance Sampling

2.2.1 Field Oversight and Sampling Methods

Aspect monitored excavation activities, field screened, and directed REES's segregation of all excavated materials. We directed REES to excavate to the IAWP-estimated excavation extents and used field screening and analytical results to direct additional excavation to achieve soil remediation levels in the excavation bottom. Field screening methods included visual (staining and sheen testing), olfactory indicators, and headspace vapor screening using a photoionization detector (PID).

Excavated soil was segregated in two categories:

- **Contaminated Soil** – Soil containing Site COPCs above the soil remediation levels or soil not meeting clean soil acceptance criteria (i.e., sheen, odor). All

contaminated soil was disposed at a permitted facility as Class III petroleum-contaminated soil.

- **Clean Soil** – Soil containing Site COPCs below the soil remediation levels and meeting clean soil acceptance requirements of the receiving facility.

When field screening indicated that Contaminated Soil had been removed, or IAWP-maximum overexcavation extents had been reached, bottom confirmation soil samples were collected for laboratory analysis to confirm compliance with the soil remediation levels. The soil performance sampling was conducted at the excavation limits in accordance with the IAWP "Sampling and Analysis Plan for Performance Monitoring" (Appendix D in Aspect, 2021) and consisted of:

- Sidewall (SW) soil samples spaced not more than every 5 feet vertically and 20 feet laterally from exposed in-place soil before the shoring wall wooden lagging was installed. The SW samples were pre-defined based on maximum shoring limits, and not based on field screening. Sidewall sample naming convention follows SW-N/W/SXX indicating the north, west, or south sidewall and XX indicating the soldier pile number (Figure 2). Vactor-excavated sidewall sample naming convention follows PL-NXX, indicating that the sample was taken at the Property line north of northern soldier pile number indicated.

- Bottom (B) soil samples were collected as discrete soil samples on a 20-foot by 20-foot grid shown on Figure 2. The bottom sampling grid encompassed the entire excavation limits, including the temporary cut slopes. Bottom sample naming convention follows B-NXX-WXX, with N indicating the northern soldier pile number and W indicating the western soldier pile number (Figure 2).

Soil samples were obtained from undisturbed *in-situ* soil and handled according to industry-standard, chain-of-custody protocols and couriered to Friedman & Bruya, Inc., in Seattle, Washington, for analysis.

BioSolve, supplied by REES, was used as a vapor suppressant during vactor excavation behind the north wall of the excavation as an added mitigation effort to prevent vapors from migrating into the public ROW. The BioSolve safety data sheet is provided in Appendix E.

2.2.2 UST Decommissioning and Removal

During the IA, three USTs were encountered at the locations shown on Plan Sheet C-04, (Appendix C). UST-2, which had been previously decommissioned in place, was removed. UST-1 and UST-3 were decommissioned and removed in accordance with the applicable regulations (WAC Chapter 173-360A) and Ecology's *Site Assessment Guidance for Underground Storage Tank Systems* (Ecology, 2021). REES was the certified UST decommissioner, and Aspect performed the UST site assessment to evaluate the UST conditions. The Ecology 30-Day Notice and Permanent Closure Notice are included in Appendix F. A summary of the USTs removed is included in Table B below.

Table B. Summary of USTs Removed

UST Name	UST Location	Approximate UST Size (gallons)	Notes Regarding Tank Contents
UST-1	Southeast of Former Building	500	Single-walled, steel; previously decommissioned in-place UST was slightly rusted and contained approximately 50 gallons of water, which was removed and disposed of by MarVac.
UST-2	Under Former Building Footprint	500	Single-walled, steel; UST was slightly rusted, and found to be previously decommissioned in-place.
UST-3	North of Former Building	500	Single-walled, steel; UST was slightly rusted, and the tank was punctured while being exposed and a small amount of product spilled onto the ground within the excavation. The area was contained by placement of berms and pumping the spilled product into a container on-site. The product was submitted for waste profiling under sample name UST-3; the analytical results are included in Appendix G. MarVac removed and disposed of the 300 gallons of product and triple rinsed the UST. Pre-classified Contaminated Soil around the tank was later excavated and disposed of as Contaminated.

All three tanks were removed and transported for off-Site disposal at Seattle Iron & Metals Corporation. Subcontractor UST disposal certificates are included in Appendix F. The soil around the USTs had previously been classified as Contaminated Soil based on data collected during the RI and field screening conducted during the IA. Soil around all three USTs was excavated as Contaminated Soil.

2.2.3 Excavation Extents and Performance Soil Sample Results

This section discusses field observations and performance soil sampling results for the IA. The IAWP-estimated excavation extents, final extents, and sample locations are shown on Figures 2, 3, 4, and 5. Photographs documenting the IA progression are included in Appendix H.

Upon receipt of the data, Aspect submitted all analytical data reports to Laboratory Data Consultants, LLC (LDC) for third-party data validation as required by the AO. Qualifiers were assigned to results as applicable based on laboratory flagging and report notes. Laboratory results were loaded and managed in a controlled database environment, with assorted data entry quality control procedures to ensure data integrity and consistency.

The LDC data validation report is included in Appendix I. Laboratory analytical reports for the performance soil sampling are included in Appendix G. All laboratory analytical data generated as part of the IA will be uploaded to Ecology's Environmental Information Management (EIM) database, as required by the AO.

A total of 14,437 tons of Contaminated Soil and 3,034 tons of Clean Soil was excavated and removed from the Property. A maximum excavation depth of 28 feet (minimum Elevation 423 feet) was required to achieve compliance with soil remediation levels in the excavation bottom prior to reaching the maximum overexcavation depth defined in the IAWP. The excavation was advanced up to 11 feet below the groundwater table and remained dry until the annual return of the wet season began on October 21, 2022, 6 days before the final excavation bottom was reached. The performance monitoring results are summarized below.

Excavation Bottom and East Slope

A total of 41 excavation bottom soil performance samples were collected between October 14 and 27, 2022, at the final excavation limits; all 41 complied with the IA soil remediation levels. Excavation bottom sample results collected at the final excavation limits are shown on Figure 2, and the analytical results are provided in Table 1. The analytical laboratory reports are included in Appendix G.

One sample (B-N12-W14) was overexcavated from the east temporary cut slope of the excavation bottom had a TPHg exceedance at approximately 12 feet bgs (Elevation 439). The overexcavation advanced the eastern cut slope approximately 12 feet further east (from N12 to N14, shown on Figure 2). At the final overexcavation extent, one new bottom performance soil sample and three new temporary cut slope performance samples (on the north, east, and south of the overexcavation sidewalls) were collected. All four results complied with the IA soil remediation levels. The overexcavation limits are shown on Figure 2, the final limits analytical results are provided in Table 1, and analytical results corresponding with overexcavated soil are provided in Table 5. The analytical laboratory reports are included in Appendix G.

North Wall

Results from 17 out of the initial 22 North Wall soil performance samples complied with IA soil remediation levels. Five sidewall soil samples collected between soldier piles N6 and N12 from sample depths of 4 and 9 feet bgs contained Site COPCs concentrations exceeding their respective remediation levels (up to 1,700 milligrams per kilogram [mg/kg] for TPHg). The exceedances are vertically bound by deeper samples complying with soil remediation levels, consistent with the RI soil analytical results from MW-5 and MW-8 locations. North sidewall soil performance sample locations and elevations are shown on Figure 3. The final performance sampling analytical results are provided in Table 2.

Aspect and REES evaluated the feasibility and practicability of methods to excavate the shallow soil exceedances behind the North Wall. A vactor truck was used to remove all Contaminated Soil between the North Wall and the Property boundary (a lateral distance of 3 to 6 feet) and protect the existing communication utility in place. Vactor excavation was completed between soldier piles N6 and N12 for an approximate total length of 56 feet.

A total of 246 tons of Contaminated Soil was removed over 12 working days using 30 vactor trucks. The vactor excavation operated on a daily shift depending on the number of trucks available. The excavation was backfilled with CDF at the end of each shift. Soil was vactor-excavated in 4-foot-wide cells to depths of 11 to 14.5 to feet bgs, with field

screening and existing analytical results directing the vactor excavation depth. Often, one cell was completed per day and required two trucks per cell.

Field screening and sampling was conducted by scraping sidewall soil material into a clean, plastic-lined bucket and lifting to the ground surface. Six sidewall samples were collected from the same locations as the excavated five north sidewall exceedances, but at the final excavation limits extended to the Property boundary. Three of the additional six Property Line (PL) samples (PL-N07 at Elevation 442, PL-N10 at Elevation 447, and PL-N10 at Elevation 442) collected at the Property boundary exceeded soil remediation levels for COPCs, with TPHg concentrations ranging from 160 to 1,500 mg/kg. These exceedances at the north Property boundary are vertically bound by samples SW-N07 and SW-N10 collected at Elevation 437 and horizontally bound by samples PL-N12 and SW-N04 collected at Elevation 442.

Final North Wall (SW) and PL sample results are shown on Figure 3. Final limit performance sampling results are provided in Table 2, analytical results corresponding with vactor excavated soil are provided in Table 5, and laboratory reports are included in Appendix G.

West Wall

Results from 34 out of a total of 41 West Wall soil performance samples complied with the IA soil remediation levels. At sample depths of 17 to 26 feet bgs (Elevation 434 to 425), low-level benzene concentrations exceeded the soil remediation level at seven locations, bound with clean sidewall results shallower, deeper, and to the north (Figure 4). The two southernmost exceedances in the West Wall are samples SW-W04 at Elevation 429 and SW-W05 at Elevation 425. These exceedances are vertically and horizontally bound by bottom performance sample B-N02-W04 collected at Elevation 424, approximately 10 feet east and up to 8 feet south of West Wall exceedances (Figures 2 and 4). Adjacent soil samples SW-W06, SW-W08, and SW-W11 at Elevation 421 were clean, so it is estimated that deeper samples at W4 and W5 would have been clean within 4 vertical feet. Exceedances are laterally bound by sidewall performance samples SW-W06 at Elevation 242, SW-W11 at Elevation 429, and SW-W14 at Elevation 434. All other Site COPCs in all West Wall performance samples complied with soil remediation levels.

Overexcavation was not practicable behind the West Wall as the shoring wall alignment was already established at the maximum extent practicable without presenting unacceptable risk to the adjacent building and property. West sidewall soil performance sample locations, elevations, and exceedances are shown on Figure 4. Analytical results are provided in Table 4, and laboratory reports are included in Appendix G.

South Wall

Cantilevered shoring of the southern excavation limits was necessary to allow southern temporary cut sloping to achieve the excavation bottom depths. All South Wall soil performance samples complied with IA soil remediation levels. South Wall soil performance sample locations, elevations, and exceedances are shown on Figure 5. Analytical results are provided in Table 4, and laboratory reports are included in Appendix G.

2.3 Water Management

The excavation was advanced below the groundwater table and remained dry until the annual return of the wet season began on October 21, 2022. This required removal and off-Site disposal of 84,200 gallons of water to complete the remedial excavation and backfill above the groundwater table.

A single water sample was collected for disposal profiling. Analytical results are provided in Table J-1 in Appendix J. The water analytical results are included in Appendix G and dewatering disposal tickets are included in Appendix J.

REES was responsible for water management, which consisted of a system with a sump graded into the excavation bottom, a trash pump, and piping to a 12,000-gallon storage tank, which was emptied as needed by MarVac. The temporary water management system operated from October 24, 2022, to November 8, 2022, when backfilled lifts advanced higher than the groundwater table.

2.4 Off-Site Disposal of Contaminated Soil

As described in IAWP, all Contaminated Soil was pre-profiled as Non-dangerous Solid Waste for permitted treatment and disposal at Cadman's Everett facility as Class III petroleum-contaminated soil. Appendix K provides the Certificate of Disposal for the landfill material. In total, 14,437 tons of Contaminated Soil was permanently removed from the Site and disposed of properly.

All temporary Contaminated Soil stockpiles were managed per IAWP (Aspect, 2021) requirements. Stockpiles were placed in a lined, bermed containment area and covered overnight. Stockpiles did not remain on-Site for more than 48 hours prior to being exported for disposal. One stockpile 'SP' was sampled on January 3, 2023, and consisted of gravel backfill that was excavated from behind the North Wall. Analytical results indicated that this stockpile was clean, and it was reused as backfill. Stockpile analytical results are included in Appendix G.

2.5 Excavation Backfill

Aspect and our subcontractor Hayre McElroy & Associates, Inc. (HMA) oversaw backfill and compaction operations.

The excavation was backfilled within 1 foot of the final grade with clean material meeting the requirements for Washington State Department of Transportation (WSDOT) Standard Specification for Gravel Borrow 9-03.14(1) (WSDOT, 2022) from Elk Heights Pit, LLC in Maple Valley, Washington, and Cadman in Granite Falls, Washington. Within 1 foot of final grade, the excavation was backfilled with material meeting WSDOT Standard Specifications for Crushed Surfacing 9-03.9(3) from Cal Portland in Kenmore, Washington, and Cadman in Granite Falls, Washington. The crushed surfacing is self-compacting and was not density tested.

The backfill material was placed on a relatively firm unyielding subgrade, free from soft or disturbed material. The exposed subgrade soils were compacted (in place) to a dense and unyielding condition prior to placement of the backfill. Backfill was placed in lifts with a loose thickness no greater than 12 inches using a 4.95-ton Volvo SD45 vibrating

roller. The backfill material was compacted to a relatively firm and unyielding condition to a minimum density of 95 percent of the maximum dry density as determined by ASTM International (ASTM) D1557 (ASTM, 2021) as measured HMA Material specifications are included in Appendix L. Additional details on geotechnical inspections during construction can be found in the Geotechnical Construction Completion Letter included in Appendix M.

3 Soil Compliance

The completed IA achieved the IAWP objectives. The LNAPL extent was completely removed from the Site. The residual soils within the excavation sidewalls and bottom comply with the IA remediation levels within the Property boundary at the direct contact point of compliance. The direct contact point of compliance for the Site is throughout the Site to 15 feet bgs accordance with WAC 173-340-760(6)(d).

Concentrations of TPHg and BTEX exceeded IA soil remediation levels in five of the 22 North Wall performance samples at the shoring wall limits. To complete excavation to the maximum extent practicable, these five sample locations were overexcavated behind the shoring wooden lagging using vactor excavation while protecting utilities in place. The final northern excavation limit was extended to the Property boundary and resampled to document the soil quality of in-place soil north of the Property boundary. Six samples were collected at the same depth and location, replacing the five exceedances at the shoring wall limits. Concentrations of TPHg and BTEX exceed IA soil remediation levels in three of the 23 final North Wall performance samples. All residual soils remaining on the Property on the North Wall comply with IA remediation levels.

Concentrations of benzene exceed IA soil remediation levels in seven of the West Wall samples at depths deeper than the direct contact point of compliance (15 feet bgs). Soil deeper than the direct contact point of compliance will be demonstrated as protective of groundwater empirically via post-IA groundwater confirmation monitoring. Proposed groundwater monitoring well locations for confirmation monitoring are shown on Figure 6. The “Sampling and Analysis Plan for Groundwater Confirmation Monitoring” (SAP) will detail the groundwater monitoring for empirical demonstration to be approved by Ecology.

4 References

Aspect Consulting, LLC (Aspect), 2021, Interim Action Work Plan, Texaco Strickland Site, August 6, 2021.

Aspect Consulting, LLC (Aspect), 2022, Geotechnical Report, Texaco Strickland Site, March 9, 2022.

ASTM International, 2021, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb./ft3 (2,700 kN-m/m3)), ASTM D1557-12, July 5, 2021.

Washington State Department of Ecology (Ecology), 2021, Site Assessment Guidance for Underground Storage Tank Systems, Publication 21-09-050, January 2021.

Washington State Department of Transportation (WSDOT), 2022, Standard Specifications for Road, Bridge, and Municipal Construction, M 41-10.

5 Limitations

Work for this project was performed for Strickland Real Estate Holdings, LLC (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

TABLES

Table 1. Excavation Bottom Soil - Performance Sampling Results

Project No. 180357, Texaco-Strickland, Lynnwood, Washington

				TPH				BTEXN				
			Analyte	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel and Oil Extended-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Interim Action Soil Remediation Level	30	2000	2000	2000	0.03	7	6	9	5
Location	Date	Elevation (ft)	Depth (ft)									
B-N02-W02	10/26/2022	438	13	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N02-W04	10/26/2022	424	27	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N02-W06	10/26/2022	423	28	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N02-W09	10/26/2022	424	27	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N02-W12	10/26/2022	425	26	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N02-W14	10/26/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N02-W16	10/26/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W02	10/26/2022	437	14	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W04	10/21/2022	427	24	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W06	10/21/2022	427	24	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W09	10/14/2022	428	23	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W11	10/21/2022	427	24	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W14	10/21/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N04-W16	10/21/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W02	10/26/2022	438	13	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W04	10/26/2022	431	20	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W06	10/26/2022	430	21	**14**	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W09	10/26/2022	426	25	**9.4**	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W12	10/26/2022	426	25	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W14	10/21/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N07-W16	10/21/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W02	10/26/2022	438	13	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W04	10/26/2022	431	20	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W06	10/26/2022	431	20	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W09	10/27/2022	430	21	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W12	10/26/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W14	10/26/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N10-W16	10/21/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N12-W02	10/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N12-W04	10/27/2022	438	13	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N12-W06	10/27/2022	438	13	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N12-W10	10/27/2022	438	13	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N12-W12	10/26/2022	439	12	< 5 U	**310 X**	**630**	**940 X**	< 0.03 U	< 0.05 U	**0.15**	**0.35**	**0.45 J**
B-N12-W16	10/26/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U

Table 1. Excavation Bottom Soil - Performance Sampling Results

Project No. 180357, Texaco-Strickland, Lynnwood, Washington

				TPH				BTEXN				
			Analyte	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel and Oil Extended-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Interim Action Soil Remediation Level	30	2000	2000	2000	0.03	7	6	9	5
Location	Date	Elevation (ft)	Depth (ft)									
B-N14-W06	10/27/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N14-W10	10/27/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N14-W12	10/27/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N14-W14	10/27/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N14-W14	12/06/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N14-W16	10/27/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	**0.1**	< 0.05 U
N15-W12	12/07/2022	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
N16-W14	12/07/2022	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
N15-W15	12/07/2022	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N99-W99	10/14/2022	428	23	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
B-N99-W99	10/21/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U

Notes:

Bold - Analyte detected above Reporting Limit (RL).

Blue Shaded - Detected result or nondetected RL exceeded screening level.

U - Analyte not detected at or above RL shown.

J - Result value estimated

X - Chromatographic pattern does not match fuel standard used for quantitation.

TPH - total petroleum hydrocarbons

BTEXN - benzene, toluene, ethylbenzene, xylenes, naphthalene

ft - feet, mg/kg - milligrapms qer kilogram

Table 2. North Sidewall Soil - Performance Sampling Results

Project No. 180357, Texaco-Strickland, Lynnwood, Washington

				TPH				BTEXN				
			Analyte	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel and Oil Extended-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Interim Action Soil Remediation Level	30	2000	2000	2000	0.03	7	6	9	5
Location	Date	Elevation (ft)	Depth (ft)									
PL-N07	12/08/2022	447	4	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
PL-N07	12/08/2022	442	9	**1400**	**400 X**	< 250 U	**400 X**	< 0.03 U	< 0.05 U	**12**	**65**	**10**
PL-N10	01/04/2023	442	9	**1500**	**260 X**	< 250 U	**260 X**	**0.17 J**	**19**	**16**	**103**	**9.7**
PL-N10	01/04/2023	447	4	**160 J**	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	**0.17**	**0.72**	**1.2**
PL-N12	01/04/2023	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
PL-N12	01/04/2023	447	4	**11**	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N01	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N02	09/29/2022	447	4	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N02	10/03/2022	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N02	10/17/2022	437	14	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N03	10/19/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N04	09/30/2022	447	4	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N04	10/03/2022	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N04	10/17/2022	437	14	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N05	10/19/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N07	10/17/2022	437	14	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	**0.057**	**0.085**	**0.284**	< 0.05 U
SW-N08	10/19/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N10	10/17/2022	437	14	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N10	10/19/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N12	09/30/2022	447	4	**30**	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	**0.56**
SW-N12	10/17/2022	437	14	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N14	09/30/2022	447	4	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N14	10/03/2022	442	9	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U

Notes:

Bold - Analyte detected above Reporting Limit (RL).

Blue Shaded - Detected result or nondetected RL exceeded screening level.

U - Analyte not detected at or above RL shown.

J - Result value estimated

X - Chromatographic pattern does not match fuel standard used for quantitation.

TPH - total petroleum hydrocarbons

BTEXN - benzene, toluene, ethylbenzene, total xylenes, naphthalene

ft - feet; mg/kg - milligrams per kilogram

Table 3. West Sidewall Soil - Performance Sampling Results

Project No. 180357, Texaco-Strickland, Lynnwood, Washington

				TPH				BTEXN				
			Analyte	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel and Oil Extended-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Interim Action Soil Remediation Level	30	2000	2000	2000	0.03	7	6	9	5
Location	Date	Elevation (ft)	Depth (ft)									
SW-W01	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W01	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W02	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W03	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W03	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W03	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W04	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W04	10/19/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	**0.057**	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W05	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	**0.074**	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W05	10/21/2022	425	26	< 5 U	< 50 U	< 250 U	< 250 U	**0.045**	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W06	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W06	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W06	10/18/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	**0.51**	< 0.05 U	**0.073**	< 0.1 U	< 0.05 U
SW-W06	10/21/2022	425	26	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W06	10/25/2022	421	30	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W06	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W08	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W08	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W08	10/25/2022	421	30	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W09	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	**0.11**	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W09	10/18/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	**0.06**	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W09	10/21/2022	425	26	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W09	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W10	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W11	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W11	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	**0.12**	< 0.05 U	**0.096**	**0.335**	< 0.05 U
SW-W11	10/18/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W11	10/25/2022	421	30	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W11	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W12	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W12	10/21/2022	425	26	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W13	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	**0.15**	< 0.05 U	**0.11**	< 0.05 U
SW-W14	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W14	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W14	10/18/2022	429	22	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W14	10/21/2022	425	26	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W14	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W16	09/26/2022	444	7	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W16	10/05/2022	439	12	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W16	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W16	12/12/2022	449	2	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-W99	10/07/2022	434	17	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U

Notes:
Bold - Analyte detected above Reporting Limit (RL).
Blue Shaded - Detected result or nondetected RL exceeded screening level.
U - Analyte not detected at or above RL shown.
TPH - total petroleum hydrocarbons
BTEXN - benzene, toluene, ethylbenzene, total xylenes, and naphthalene
ft - feet; mg/kg - milligrams per kilogram

Table 4. South Sidewall Soil - Performance Sampling Results

Project No. 180357, Texaco-Strickland, Lynnwood, Washington

				TPH				BTEXN				
			Analyte	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Diesel and Oil Extended-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Interim Action Soil Remediation Level	**30**	**2000**	**2000**	**2000**	**0.03**	**7**	**6**	**9**	**5**
Location	**Date**	**Elevation (ft)**	**Depth (ft)**									
SW-S01	10/11/2022	446	5	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-S03	10/11/2022	446	5	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-S06	10/11/2022	446	5	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-S08	12/12/2022	448	3	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-S10	12/12/2022	448	3	< 5 U	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U

Notes:

Bold - Analyte detected above the Reporting Limit (RL).

Blue Shaded - Detected result or nondetected RL exceeded screening level.

U - Analyte not detected at or above RL shown.

TPH - total petroleum hydrocarbons

BTEXN - benzene, toluene, ethylbenzene, total xylenes, naphthalene

ft - feet; mg/kg - milligrams per kilogram

Table 5. Overexcavated Sampling Results (Removed from Site)

Project No. 180357, Texaco-Strickland, Lynnwood, Washington

				TPH				BTEXN				
			Analyte	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Oil Extended-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Interim Action Soil Remediation Level	30	2000	2000	2000	0.03	7	6	9	5
Location	**Date**	**Elevation (ft)**	**Depth (ft)**									
B-N12-W14	10/26/2022	439	12	**1600**	< 50 U	< 250 U	< 250 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U
SW-N07	09/30/2022	447	4	**73**	< 50 U	< 250 U	< 250 U	**0.03**	**0.2**	**0.59**	**2.87**	**0.26**
SW-N07	10/03/2022	442	9	**740**	**440**	< 250 U	**440**	< 0.03 U	**1.2 J**	**5.1 J**	**35.1 J**	**6.4 J**
SW-N10	09/30/2022	447	4	**1700**	**550 X**	< 250 U	**550 X**	**0.19 J**	**0.29 J**	**10 J**	**13.9 J**	**8 J**
SW-N10	10/03/2022	442	9	**1500**	< 50 U	< 250 U	< 250 U	< 0.03 U	**0.95**	**5.7**	**36.7**	**5.3**
SW-N12	10/03/2022	442	9	**370 J**	**74 X**	< 250 U	**74 X**	< 0.03 U	< 0.05 U	**0.48**	**0.984**	**3.3**

Notes:

Bold - Analyte detected above Reporting Limit (RL).

Blue Shaded - Detected result or nondetected RL exceeded screening level.

U - Analyte not detected at or above RL shown.

J - Result value estimated

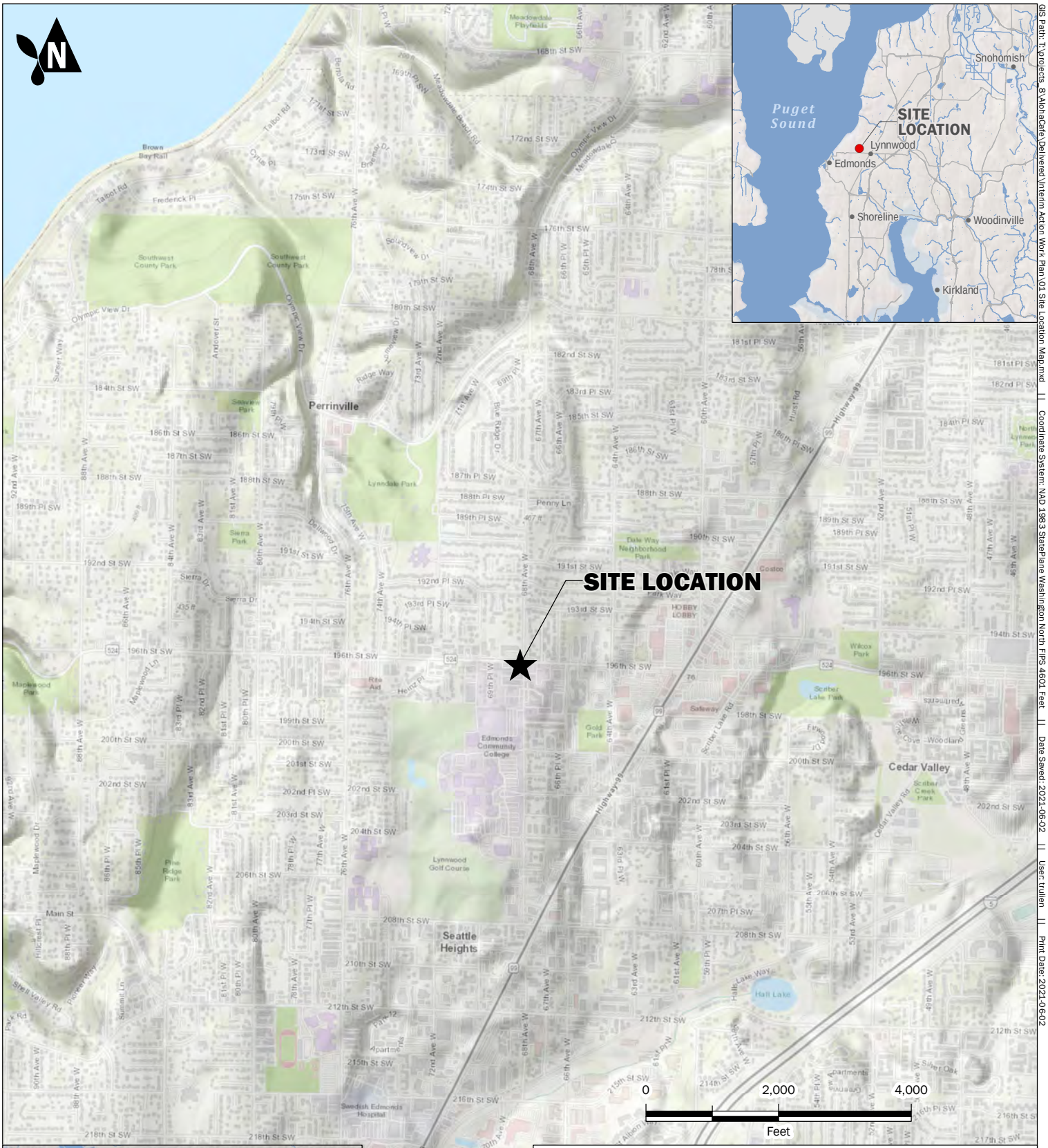
X - Chromatographic pattern does not match fuel standard used for quantitation.

TPH - total petroleum hydrocarbons

BTEXN - benzene, toluene, ethylbenzene, total xylenes, and naphthalene

ft - feet; mg/kg - milligrams per kilogram

FIGURES



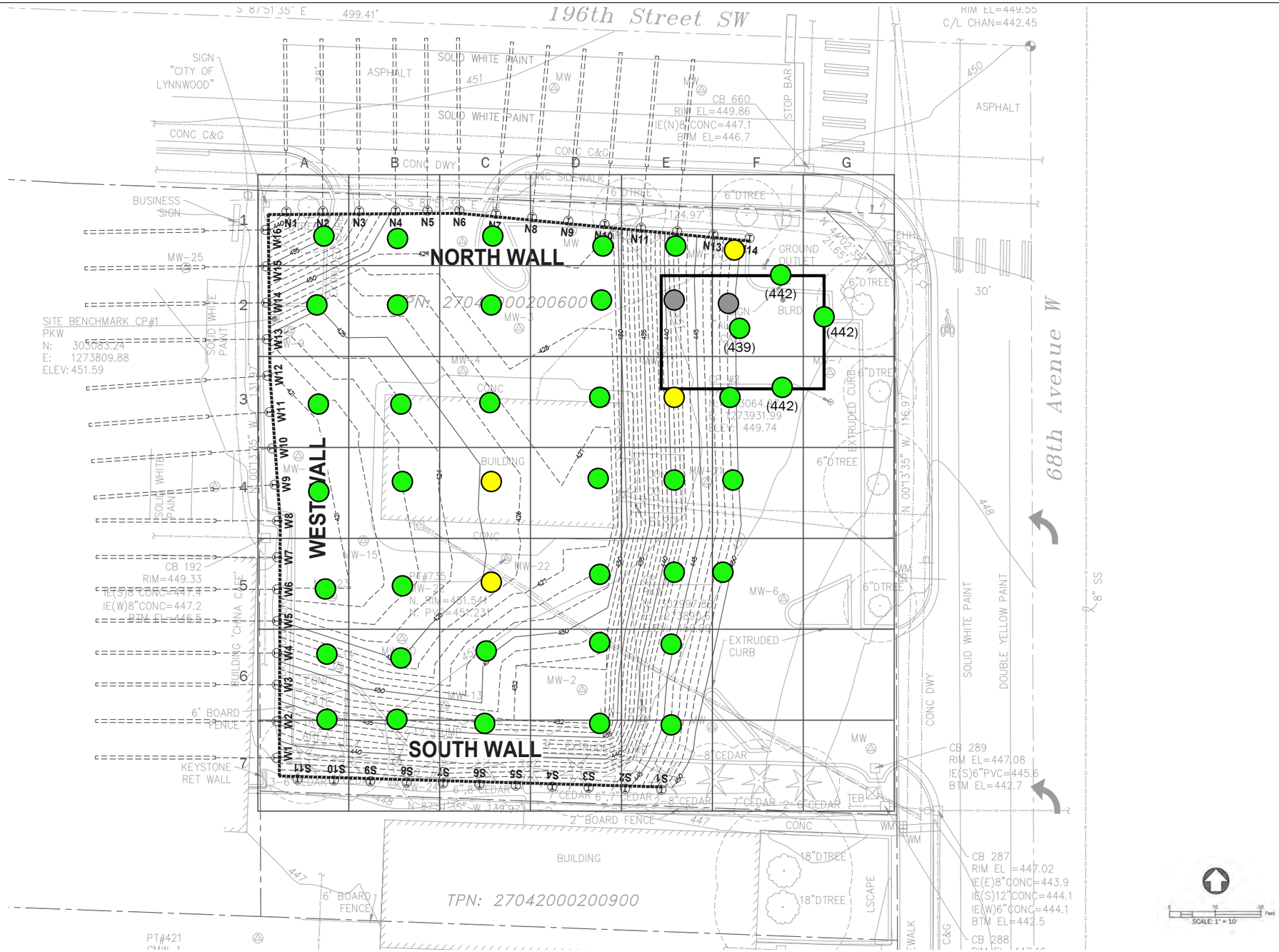
Vicinity Map

Interim Action Report
Texaco Strickland Site
6808 196th Street SW
Lynnwood, WA

Aspect CONSULTING	JUN-2021	BY: WVG / TDR	FIGURE NO. 1
	PROJECT NO. 180357	REVISED BY: ---	

Basemap Layer Credits || Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

GIS Path: T:\projects_8\MohaCafe\Delivered\Interim Action Work Plan\01 Site Location Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 2021-06-02 || User: trullen || Print Date: 2021-06-02



- One or more COCs were detected in confirmation soil samples at a concentration greater than the Remediation Level
- One or more COCs were detected in confirmaion soil samples but at a concentration less than the Remediation Level
- COCs were not detected in confirmation soil samples
- Soil sample location was overexcavated
- Location of overexcavation to EL 439

Note: Please refer to Table 1 for analytical data.

Bottom Sampling Results

Interim Action Status Letter
Texaco Strickland Site
Lynnwood, Washington

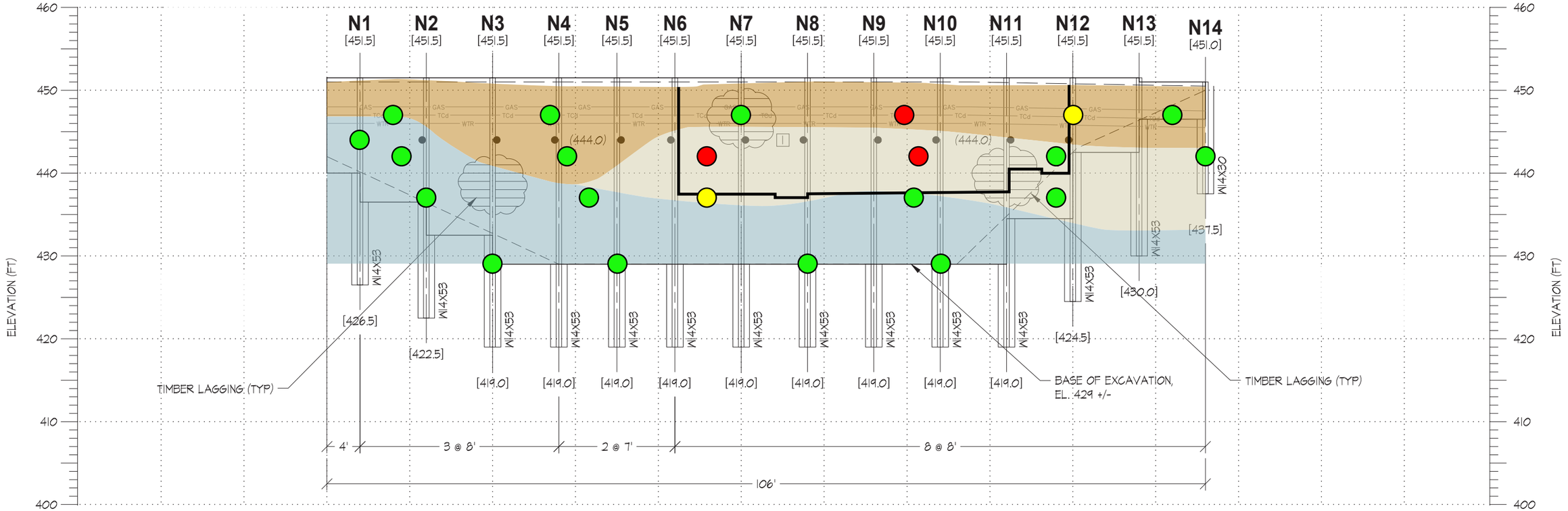
Aspect Consulting	FEB-2023	BY: BDO	FIGURE NO. 2
	PROJECT NO. 180357	REV BY: ---	

P:\Aloha Cafe - Strickland\Data\Maps\A Figures\AI files\Figure 2 Bottom Samples.ai

West

East

NORTH WALL



- One or more COCs were detected in confirmation soil samples at a concentration greater than the Remediation Level
- One or more COCs were detected in confirmaion soil samples but at a concentration less than the Remediation Level
- COCs were not detected in confirmation soil samples
- Area overexcavated between north shoring wall and property line

- Fill
- Weathered Vashon Glacial Till
- Vashon Glacial Till

Note: Geology from Sections A-A' of Geotechnical Report

Note: Please refer to Table 2 for analytical data.

Shoring Section from Construction Plan Set (Appendix C)

North Sidewall Cross Section with Sampling Results

Interim Action Status Letter
Texaco Strickland Site
Lynnwood, Washington

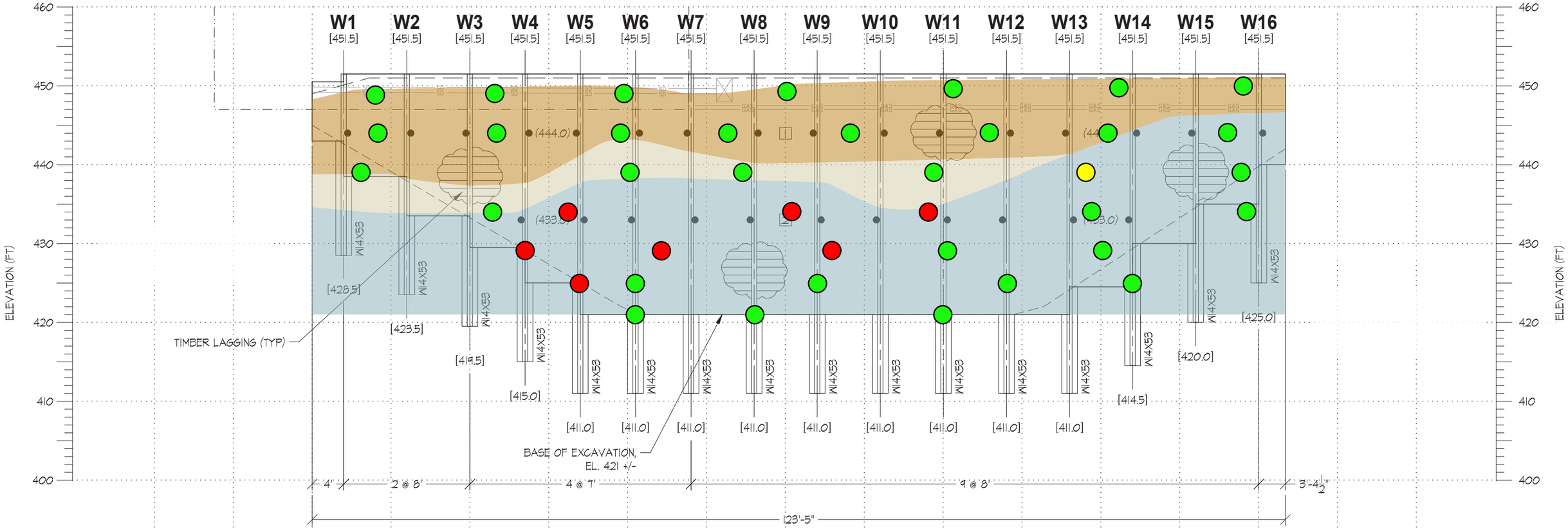
Aspect CONSULTING	FEB-2022	BY: BDO	FIGURE NO. 3
	PROJECT NO. 180357	REV BY: ---	

P:\Aloha Cafe - Strickland\Data\Maps\IA Figures\AI files\Figure 3 North.ai

South

North

WEST WALL



- One or more COCs were detected in confirmation soil samples at a concentration greater than the Remediation Level
- One or more COCs were detected in confirmation soil samples but at a concentration less than the Remediation Level
- COCs were not detected in confirmation soil samples

- Fill
- Weathered Vashon Glacial Till
- Vashon Glacial Till

Note: Geology from Sections B-B' of Geotechnical Report

Note: Please refer to Table 3 for analytical data.

Shoring Section from Construction Plan Set (Appendix C)

West Sidewall Cross Section with Sampling Results

Interim Action Status Letter
Texaco Strickland Site
Lynnwood, Washington

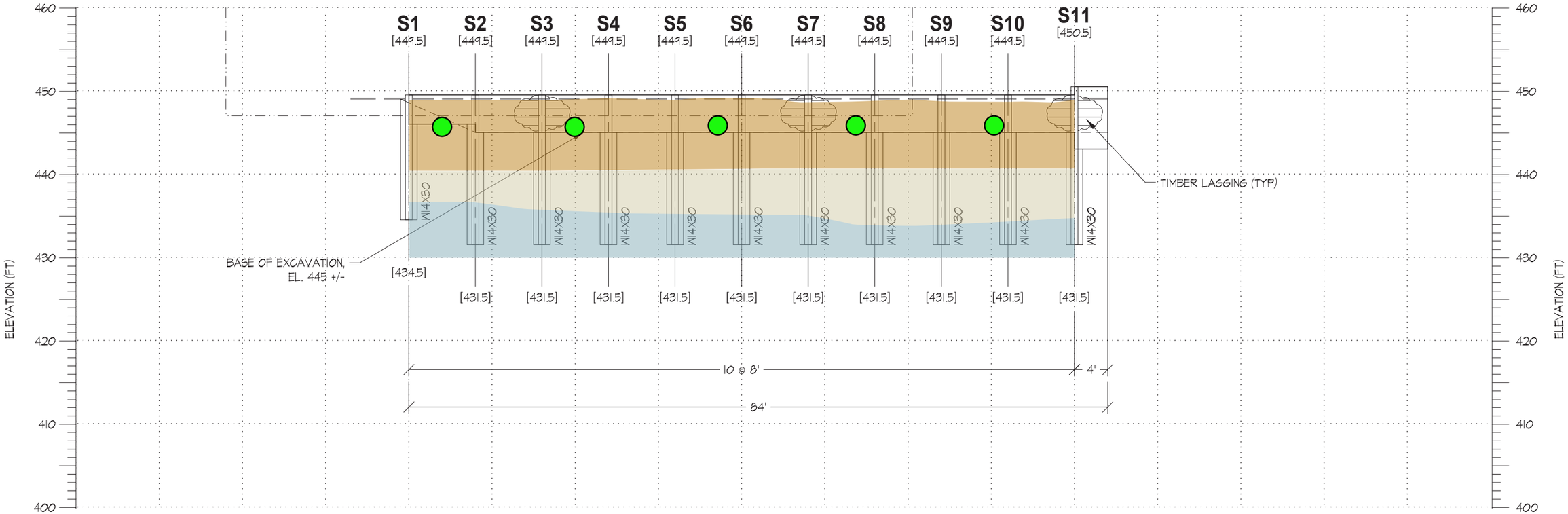
Aspect CONSULTING	FEB-2022	BY: BDO	FIGURE NO. 4
	PROJECT NO. 180357	REV BY: ---	

P:\Aloha Cafe - Strickland\Data\Maps\A Figures\A1 Files\Figure 4 West.ai

East

West

SOUTH WALL



- One or more COCs were detected in confirmation soil samples at a concentration greater than the Remediation Level
- One or more COCs were detected in confirmaion soil samples but at a concentration less than the Remediation Level
- COCs were not detected in confirmation soil samples

- Fill
- Weathered Vashon Glacial Till
- Vashon Glacial Till

Note: Geology from Sections A-A' of Geotechnical Report

Note: Please refer to Table 4 for analytical data.

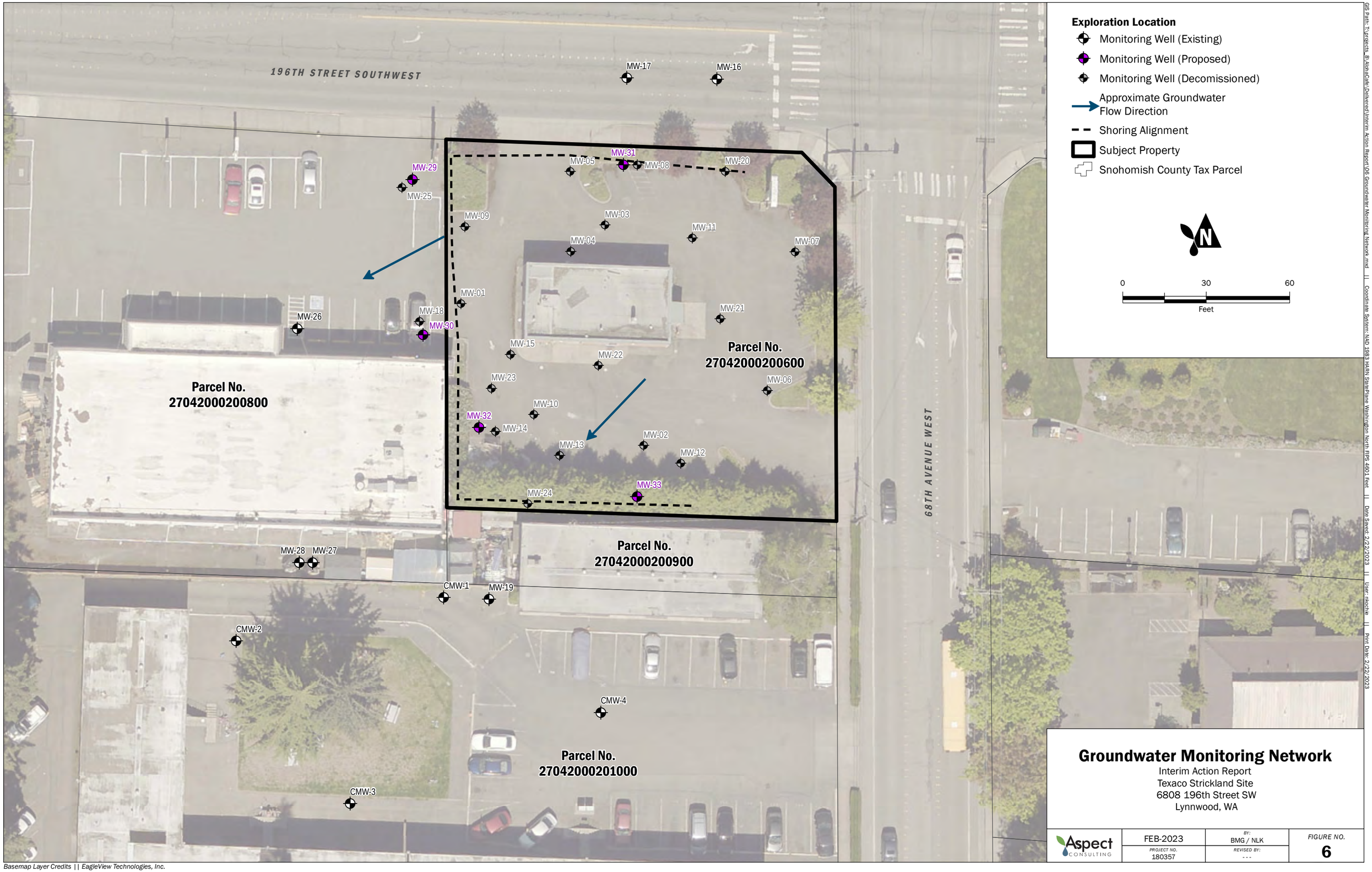
Shoring Section from Construction Plan Set (Appendix C)

South Sidewall Cross Section with Sampling Results

Interim Action Status Letter
Texaco Strickland Site
Lynnwood, Washington

Aspect Consulting	FEB-2023	BY: BDO	FIGURE NO. 5
	PROJECT NO. 180357	REV BY: ---	

P:\Aloha Cafe - Strickland\Data\Maps\IA Figures\AI files\Figure 5 South.ai



Groundwater Monitoring Network

Interim Action Report
Texaco Strickland Site
6808 196th Street SW
Lynnwood, WA

Aspect Consulting	FEB-2023	BY: BMG / NLK	FIGURE NO. 6
	PROJECT NO. 180357	REVISED BY: ---	

Basemap Layer Credits || EagleView Technologies, Inc.

GIS Path: T:\projects_8\AshaCafe\Delivered\Interim Action Report\06 Groundwater Monitoring Network.mxd || Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet || Date Saved: 2/22/2023 || User: nkoche || Print Date: 2/22/2023