



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 6, 2020

Dave Becher
Washington State Department of Transportation
999 3rd Ave, Suite 2200
Seattle, WA 98104

**Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following
Hazardous Waste Site:**

- **Site Name:** Montlake Texaco
- **Site Address:** 2625 E Montlake
- **Facility/Site No.:** 47724816
- **Cleanup Site ID:** 14857
- **VCP Project No.:** NW3242

Dear Dave Becher:

The Washington State Department of Ecology (Ecology) received your request for an opinion on the *Remedial Investigation Report for Montlake Gas Station (RI Report)* regarding the Montlake Texaco facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issues Presented and Opinion

Does the *RI Report* meet the stated objectives with respect to delineating the nature and extent of contamination at the Site?

Is the interim action described in the *RI Report* expected to be effective in removing contamination from the Site?

YES. Ecology has determined that the understanding of contaminant impacts at the Site has been greatly enhanced by the RI, and that the proposed removal and

treatment of contaminated soil and ground water during and after underground storage tank removal will support progress of the Site towards cleanup.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Total petroleum hydrocarbons (TPH) in the gasoline, diesel, and oil ranges (TPH-G, TPH-D, and TPH-O); benzene, toluene, ethylbenzene, and xylenes (BTEX); and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) into the Soil.
- TPH-G, TPH-D, TPH-O, BTEX, cPAHs, and arsenic into the Ground Water.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the documents listed in **Enclosure B**. A number of these documents are accessible in electronic form from the [Site web page \(https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=14857\)](https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=14857). The complete records are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our [Public Records Request page \(https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests\)](https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests) to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis and Opinion

Ecology appreciates the completeness and level of detail provided in the RI Report, and provides the following comments:

- Evaluation of compliance with the Method A soil and ground water cleanup levels for

TPH-D and TPH-O requires adding concentrations of the two fractions and comparing the result to the cleanup level, per *Implementation Memorandum #4, Determining Compliance with Method A Cleanup Levels for Diesel and Heavy Oil*, Publication No. 04-09-086, June 2004, and *Guidance for Remediation of Petroleum Contaminated Sites*, Publication No. 10-09-057, revised June 2016.

- Detections of the following chemical parameters above preliminary cleanup levels requires retention as contaminants of concern (COCs) for the Site:
 - TPH-D, TPH-O, and cPAHs in soil and ground water, in the vicinity of the waste oil tank.
 - Arsenic in ground water.
- Consider local and regional data for natural arsenic in ground water, to evaluate background arsenic concentrations versus arsenic that has likely been mobilized by geochemical conditions created by degradation of petroleum constituents.
- A Ground Water Model Remedy will likely be appropriate for this Site; however, selection of Model Remedy 2 is premature, and confirmation sampling results from the interim action will need to be considered in Model Remedy selection.
- Please expand the piezometric surface map shown in Exhibit 7 to include water levels from H-691p-16, H-667p-15, and MW-5-20, to demonstrate impacts of the 90-inch diameter combined sewer line on ground water flow and contaminant transport.
- The base elevation contours of the proposed remedial excavation (Exhibit 18) do not appear to coincide with the outline of the excavation shown on the cross sections of Exhibits 3 and 4. Please describe how the excavation will be shored and dewatered, and confirm the depths to which soil and associated contamination will be removed.
- In the Remedial Activities section of the *RI Report*, please include a statement that prior to initiation of UST removal and contaminated soil excavation, an Interim Action Work Plan will be prepared for Ecology review under the VCP. The Work Plan should include details regarding confirmation sampling of soil and groundwater.
- If a Property No Further Action opinion becomes an option, post-excavation monitoring wells will be needed on the Property to document decreases in contaminants to concentrations below cleanup levels. At least one additional monitoring well adjacent to the combined sewer line (closer to the Property than MW-3-19) will also be needed to assess the off-Property extent of remaining ground water contamination.

Ecology recommends resolution of these comments by means of technical memos, rather than an update of the *RI Report*.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

Dave Becher
July 6, 2020
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For more information about the VCP and the cleanup process, please visit our web site:
www.ecy.wa.gov/vcp. If you have any questions about this opinion, please contact me by phone
at 425-649-7257 or e-mail at michael.warfel@ecy.wa.gov.

Sincerely,



Michael R. Warfel, Site Manager
Toxics Cleanup Program, NWRO

Enclosures (2): A – Description and Diagrams of the Site
 B – Basis for the Opinion: List of Documents

cc: Meg Strong, Shannon & Wilson
 Margaret Kucharski, WSDOT

Enclosure A

Description and Diagrams of the Site

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site as characterized to date is defined by TPH-G, TPH-D, TPH-O, BTEX releases to soil and TPH-G, TPH-D, TPH-O, BTEX, and arsenic releases to ground water. The Property on which the Site release occurred is located on King County tax parcel numbers 8805901070, 8805901085, and 8805901090, with a total area of 0.65 acres. The street addresses associated with these parcels are 2010 Roanoke Street, 2625 East Montlake Place East, and 2601 22nd Avenue East, respectively.

Area and Property Description: The Site is located in the City of Seattle, Washington, in King County, (**Figure 1**) and is bounded by the SR 520 eastbound off-ramp, East Montlake Place East, 22nd Avenue East, and East Roanoke Street (**Figure 2**). The Property was formerly occupied by a gasoline service station and the Montlake Market. The surrounding area is occupied by residential and limited commercial development.

Site History and Current Use: Earliest available records indicate that the Property was initially developed as early as 1926 and might have included gasoline service station activities at that time. King County Assessor records show the construction date of the Montlake Market building and the gasoline station building as 1937 and 1952, respectively. The service station building was remodeled in approximately 1980 to incorporate bays for auto servicing and repair.

WSDOT acquired the Property in June 2019. Business activities in these two structures ceased at the end of 2019 and the structures were demolished in early 2020. The WSDOT contractor for the SR 520 Montlake Project is currently using the Property for construction equipment staging.

Sources of Contamination: Four underground storage tanks (USTs) remain in place at the Site:

- Two 10,000-gallon leaded gasoline (temporarily closed)
- 5,000-gallon unleaded gasoline (temporarily closed)
- 300-gallon waste oil (closed in place)

The UST locations are shown on **Figure 2**.

Physiographic Setting: The Site is located in the Puget Sound Basin, which is bounded on the east by the Olympic Mountains and the west by the Cascade Mountains. The Site is situated at an elevation of approximately 60 feet above mean sea level (amsl) on a relatively flat area, at the northern terminus Capitol Hill that reaches elevations exceeding 400 feet amsl. Land slopes from the Site to the west, north, and east towards Portage Bay, State Route 520, and Union Bay, respectively.

Surface/Storm Water System: The Site is located approximately 800 feet, 1,200 feet, and 1,400 feet from Portage Bay, the Ship Canal, and Union Bay, respectively (see **Figure 1**). Stormwater runoff is routed to catch basins on the Property and adjacent City streets.

Ecological Setting: The Site is located in a developed area and is surrounded by roadways, commercial properties, and residences. The land surface of the Site and surrounding area is primarily covered paving, with interspersed landscaping and open spaces. The Site qualified for a Simplified Terrestrial Ecological Evaluation (TEE), which concluded that no further evaluation was necessary.

Geology: Borings drilled on the Site encountered the following geologic strata (**Figure 3**):

- Sandy silt to silty sand (including pavement base course, fill, and native materials), approximately 18 feet thick.
- Sand to silty sand with gravel, discontinuous, encountered from 20 to 25 below ground surface (bgs).
- Very dense silty sand to sandy silt (glacial till). The glacial till surface elevation is variable beneath the Site and forms a trough that extends southeast to northwest, varying in elevation from 45 feet to 31 feet amsl. The till extends to at least 60 feet bgs, the maximum depth explored.

The elevation of the top of the glacial till unit varies over the Site. A linear depression in the glacial till surface extends in a southeast – northwest direction beneath the Site (Figure 4).

Ground Water: Ground water was encountered in monitoring wells drilled at the Site at depths of 9 to 17 feet bgs in October 2019, on top of the glacial till. A piezometric surface map prepared using these ground water elevations indicates a flow direction to the north (**Figure 5**). Ground water flow appears to be influenced by the sloping surface of the glacial till and by the permeable backfill surrounding a 90-inch diameter combined sewer line that crosses the Site. Quarterly ground water levels measured in one monitoring well over a 21-month period showed seasonal variations up to 12 feet.

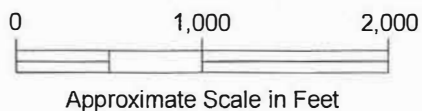
Release and Extent of Contamination: Investigations completed at the Site have identified the following likely sources of petroleum contamination of soil and ground water:

- Leaks from gasoline UST systems (tanks and piping).
- Spills from gasoline dispensing systems on pavement and seepage through pavement cracks.
- Spills into stormwater catch basins and subsequent leakage from conveyance system piping.

A review of laboratory chromatograms of petroleum contaminated samples indicated that multiple releases likely occurred from these sources over time. This conclusion is based on the weathering patterns of petroleum constituents observed in the chromatograms.

The distribution of contaminants of concern (COCs) in soil is shown in **Figure 6** and in ground water in **Figures 7 and 8**. Contamination in soil and ground water was observed in the area within and surrounding the pump islands, and extends into the adjacent E Montlake Place E and SR 520 rights-of-way. Contamination in ground water also appears to extend to the north and northwest, within the backfill of the combined sewer line.

Site Diagrams



NOTE

Bing Map Image adapted from aerial imagery provided by Autodesk Live Maps and Microsoft Bing Maps reprinted with permission from Microsoft Corporation.

Montlake Gas Station VCP
Remedial Investigation Report
2625 Montlake Place East
Seattle, WA

VICINITY MAP

March 2020

21-1-22242-104

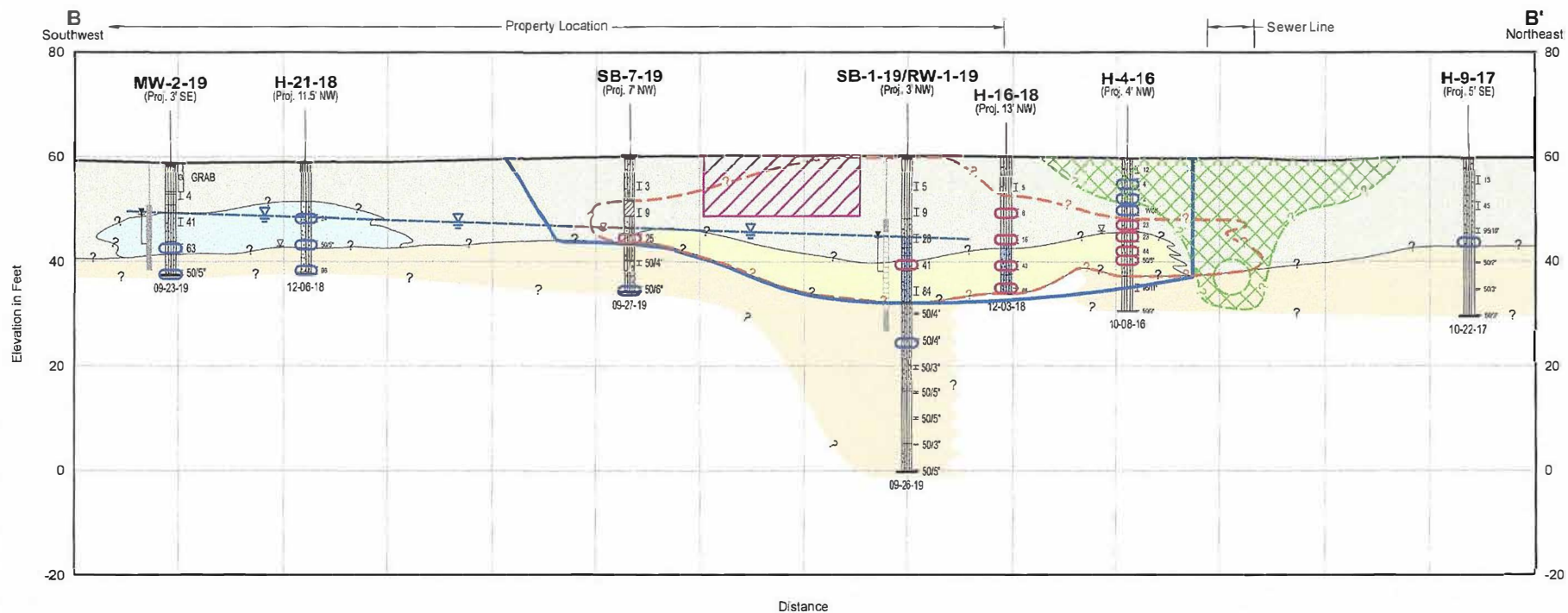
SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Exhibit 1

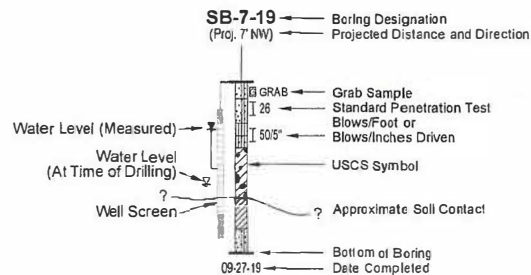
Enclosure A, Figure 1

Enclosure A, Figure 2

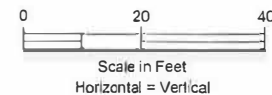
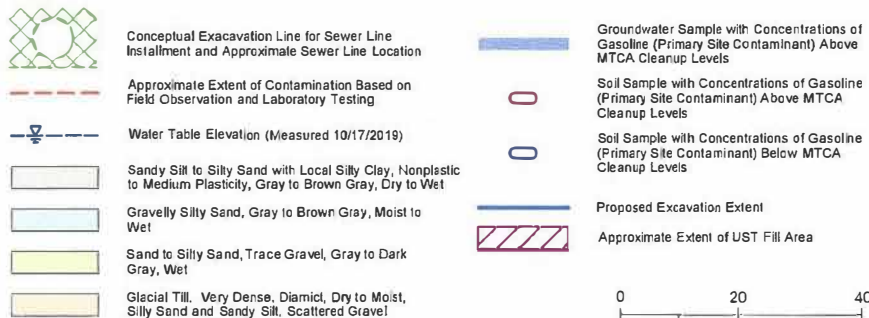
Filename: J:\112242\10424-1-22242-104 Plan and Profiles.dwg Layout: Exhibit 4 Date: 03-09-2020 User: JRS



BORING LOG LEGEND (Project Boring)

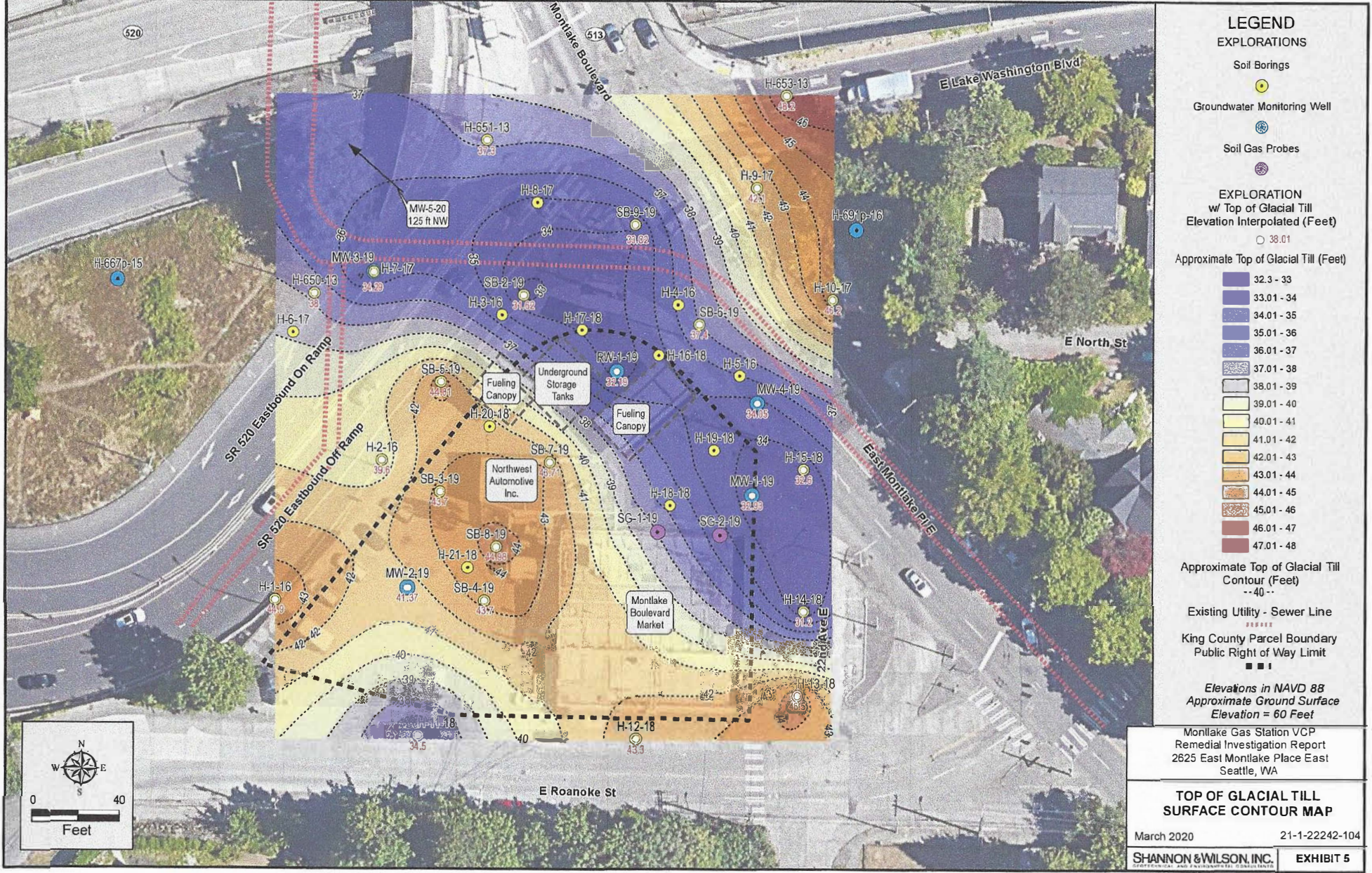


LEGEND

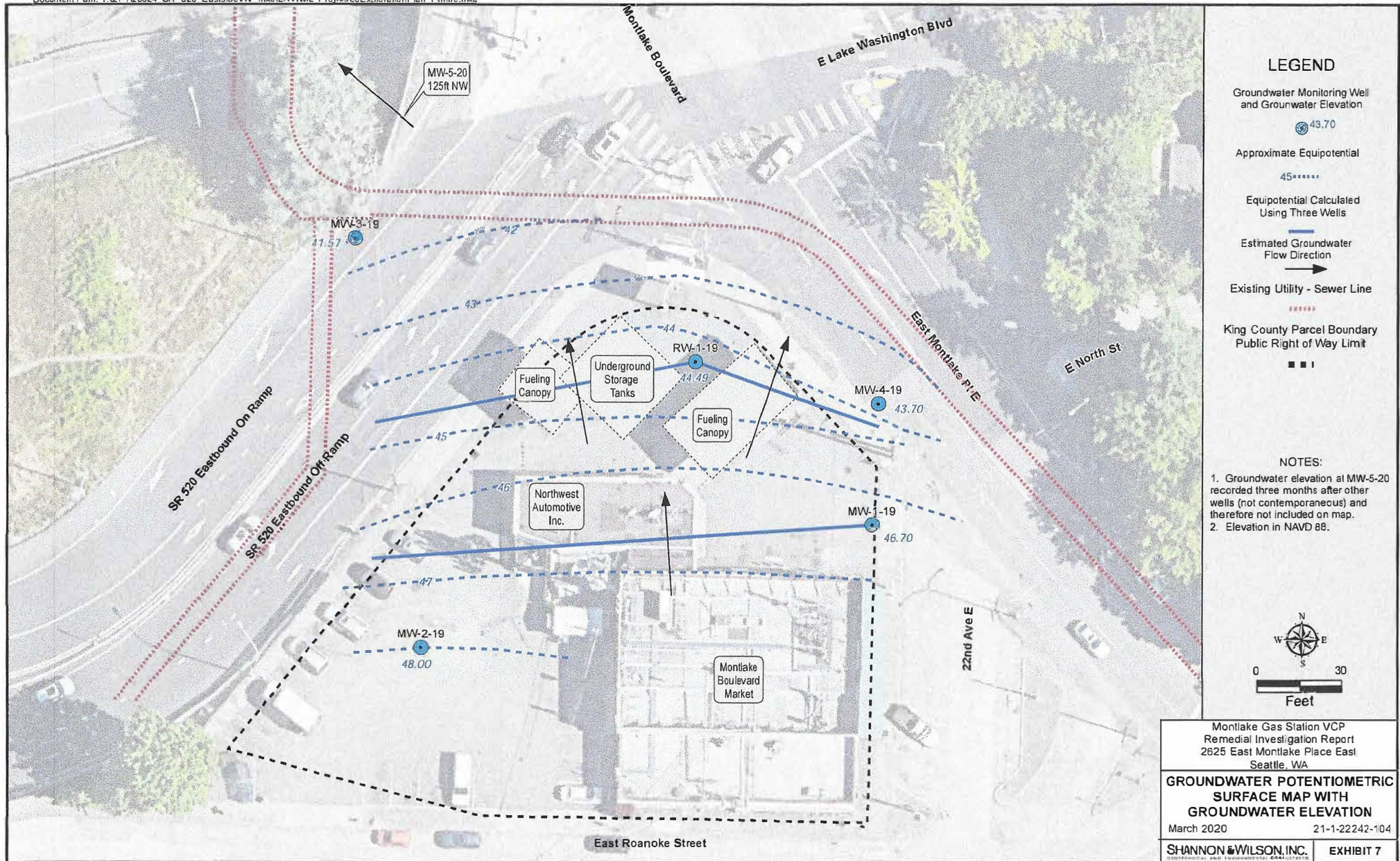


Montlake Gas Station VCP Remedial Investigation Report 2625 E Montlake Place E Seattle, WA	
CONCEPTUAL SUBSURFACE CONTAMINANT PROFILE B-B'	
March 2020	21-1-22242-104
SHANNON & WILSON, INC.	EXHIBIT 4

Enclosure A, Figure 3



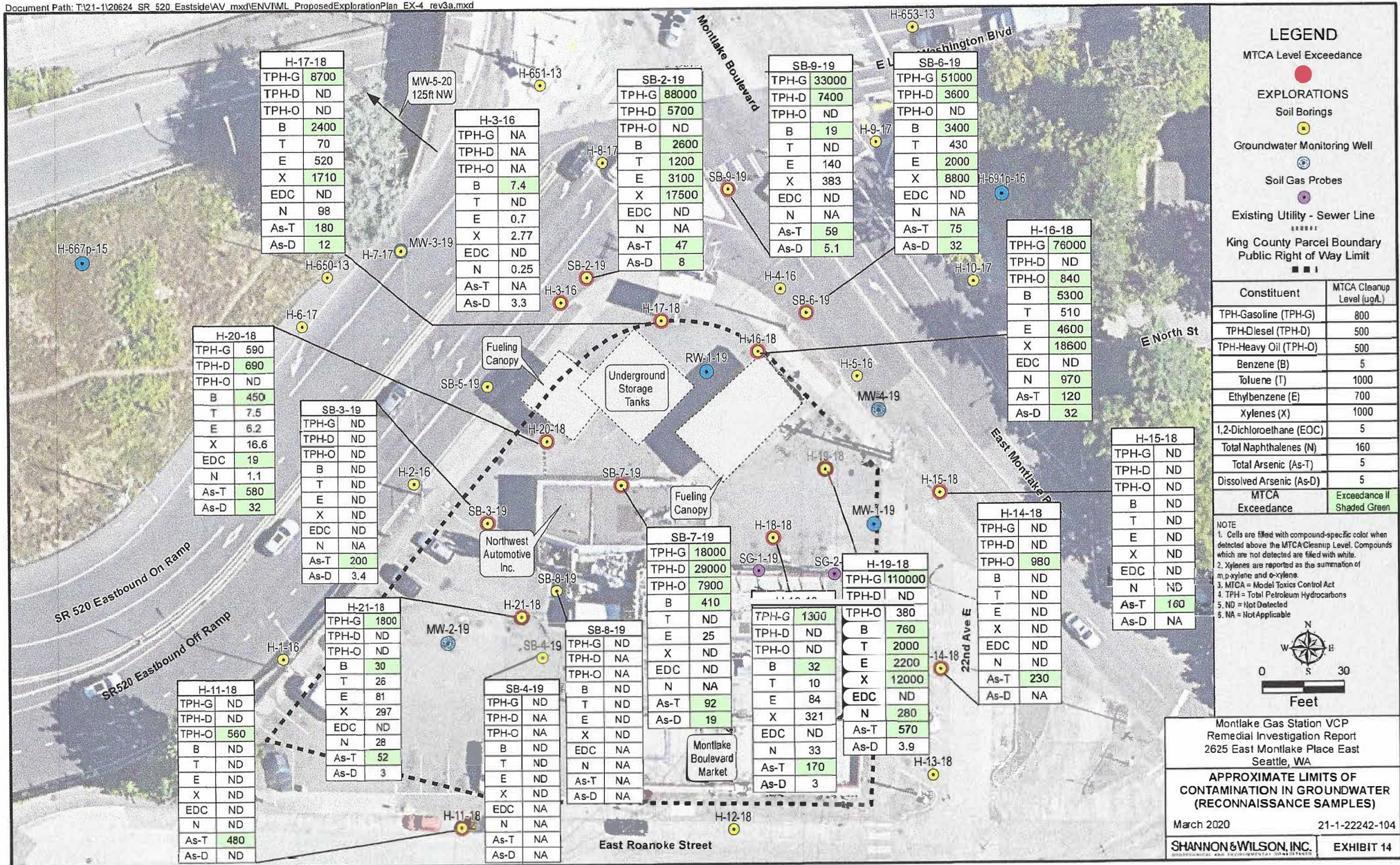
Enclosure A, Figure 4



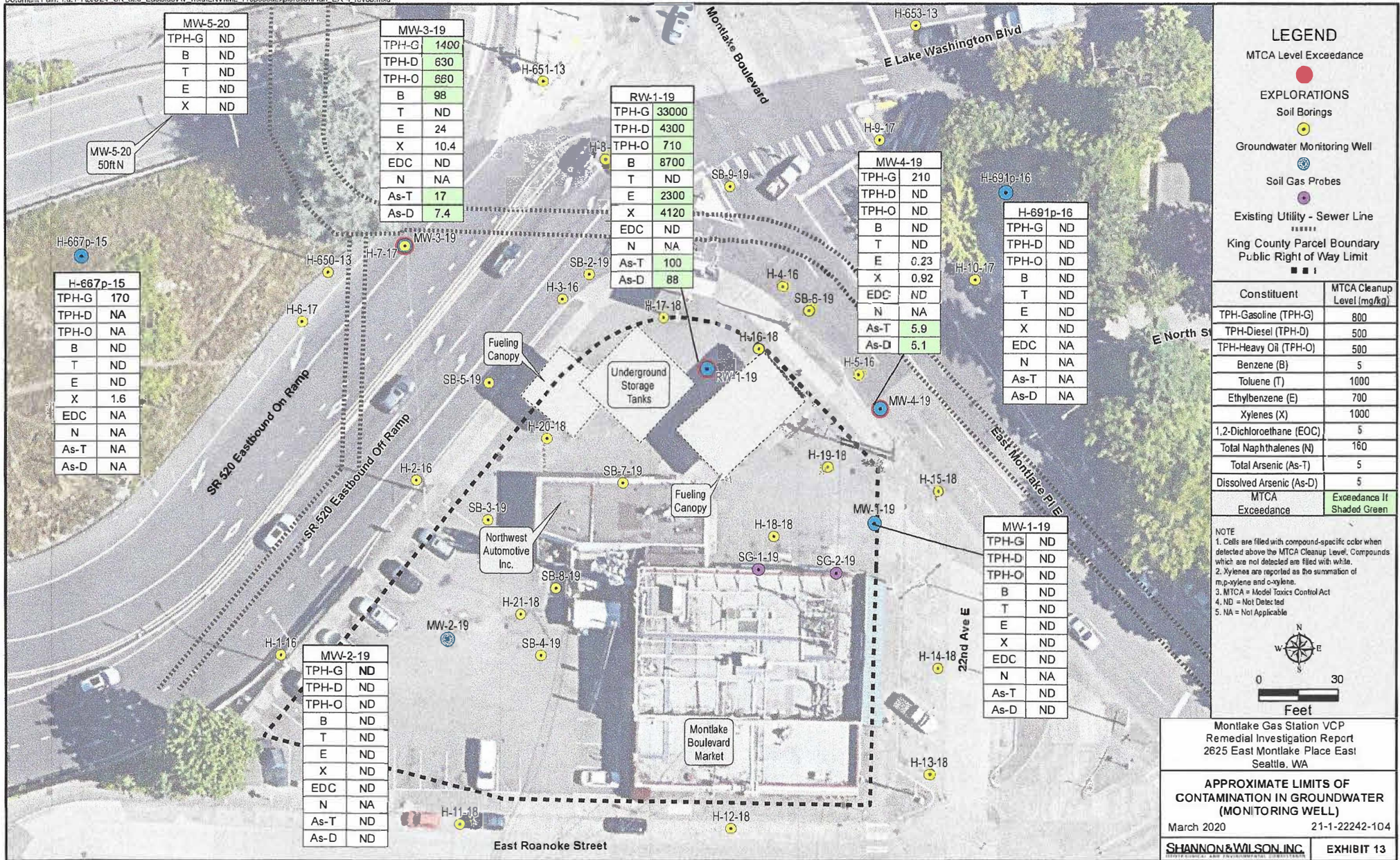
Enclosure A, Figure 5



Enclosure A, Figure 6



Enclosure A, Figure 7



Enclosure A, Figure 8

Enclosure B

Basis for the Opinion: List of Documents

1. Shannon & Wilson (S&W), 2020. *Remedial Investigation Report for Montlake Gas Station, SR 520 Bridge Replacement and HOV Program, Seattle, Washington*. Prepared for Washington State Department of Transportation (WSDOT). March 10, 2020.
2. S&W, 2019. *Data Gaps Investigation Work Plan/Sampling and Analysis Plan for Montlake Gas Station, SR 520 Bridge Replacement and HOV Program, Seattle, Washington*. Prepared for WSDOT. July 23, 2019.
3. S&W, 2019. *2209 East Lake Washington Boulevard Indoor Air Testing*. Letter to Ron Paananen, HDR. March 8, 2019.
4. Hart Crowser, 2019. *Phase II Environmental Site Assessment, Montlake Market and Gas Station Properties, 2625 East Montlake Place East and 2605 22nd Avenue East, Seattle, Washington*. Prepared for Montlake LLC and Stelter Montlake LLC. January 30, 2019.
5. Hart Crowser, 2019. *Phase II Environmental Site Assessment, Montlake Market and Gas Station Properties, 2625 East Montlake Place East and 2605 22nd Avenue East, Seattle, Washington; Release Reporting Letter to Washington State Department of Ecology*. Prepared for Montlake LLC and Stelter Montlake LLC. January 30, 2019.
6. Washington State Department of Ecology (Ecology), 2019. *Early Notice Letter Regarding Release of Hazardous Substances, Montlake Texaco Site, Letter to Scott Baker, Montlake Texaco, 2625 E Montlake Place E, Seattle, WA 98112*. January 28, 2019.
7. Washington State Department of Ecology (Ecology), 2019. *Early Notice Letter Regarding Release of Hazardous Substances, Montlake Texaco Site, Letter to Kemper Development Company, 575 Bellevue Square, Bellevue WA 98104*. January 28, 2019.
8. Innovex Environmental Management, Inc. (Innovex), 2019. *Third Supplemental Limited Phase II Environmental Site Assessment, 2625 East Montlake Place East, Seattle, Washington*. Prepared for WSDOT. January 16, 2019.
9. Innovex, 2018. *Second Supplemental Limited Phase II Environmental Site Assessment, 2625 East Montlake Place East, Seattle, Washington*. Prepared for WSDOT. June 15, 2018.
10. Innovex, 2018. *Supplemental Limited Phase II Environmental Site Assessment, 2625 East Montlake Place East, Seattle, Washington*. Prepared for WSDOT. February 21, 2018.
11. Innovex, 2016. *Phase II Environmental Site Assessment, State Route (SR) 520 Eastbound Off-Ramp to Montlake Vicinity, Seattle, Washington*. Prepared for WSDOT. December 8, 2016.
12. WSDOT, 2016. *Limited Phase I Environmental Site Assessment, SR520 Montlake '76 Gasoline and Service Station, Seattle, Washington*. February 16, 2016.