



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

January 31, 2018

Electronic Copy

Mr. Skip Tarr
TARR LLC
P.O. Box 12570
Portland, OR 97212-0570

Re: No Further Action at the following Site:

- **Site Name:** TARR INC
- **Site Address:** 7208 NE St. Johns Rd., Vancouver, 98665, Clark County
- **Facility/Site No.:** 82645316
- **Cleanup Site No.:** 11572
- **VCP Project No.:** SW1174

Dear Mr. Tarr:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the TARR INC 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.

Issue Presented and Opinion

Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

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:

- Gasoline range total petroleum hydrocarbons (TPH-G) into the Soil and Groundwater.

- Diesel range and oil range total petroleum hydrocarbons (TPH-D and TPH-O, collectively; TPH-D/O) into the Soil and Groundwater.
- Benzene, toluene, ethylbenzene, and xylene (BTEX) constituents into the Soil and Groundwater.
- Methyl tert-butyl ether (MTBE) into the Ground Water.
- 1-2 Dibromoethane (EDB) into the Groundwater.
- Lead into the Soil and Groundwater.

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 following documents:

1. APEX Companies, LLC (APEX), *Revised Closure Report*, October 30, 2017.
2. APEX, *Groundwater Monitoring Report*, March 19, 2015.
3. Ash Creek Associates (Ash Creek), *Remediation Construction and Startup Report*, February 8, 2013.
4. Washington State Department of Ecology (Ecology), *Letter to Mr. Skip Tarr; Re: Opinion on Proposed Cleanup of the following Site*, October 13, 2011.
5. Ash Creek, *RI/FS and Cleanup Action Plan*, June 6, 2011.
6. Ash Creek, *Letter to Mr. Skip Tarr; Re: Phase II Environmental Site Assessment*, March 28, 2011.

The above documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365. Some documents may be available on Ecology's web page at <https://fortress.wa.gov/ecy/gsp/SiteSearchPage.aspx>.

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

Analysis of the Cleanup

Ecology has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**. Figures and Tables referenced below are included in **Enclosure A**.

Ash Creek and APEX have sufficiently delineated the extents of the petroleum contaminated soil (PCS) and groundwater, and demonstrated that the PCS has been remediated to concentrations below the MTCA Method A CULs. Investigations completed at the Site show that;

- Subsurface investigations delineated two distinct contamination areas. One located near the satellite gasoline dispenser (soil boring SB-5), and one located west of the warehouse building and associated with the 3,000-gallon gasoline underground storage tank (UST) and previously unknown 1,000-gallon UST. APEX's Figure 4 shows the two contamination areas.
- The contaminated area west of the warehouse building identified soil and groundwater exceedances of MTCA Method A CULs for hazardous substances related to a petroleum release. This included TPH-G, TPH-D/O, BTEX constituents, and various other VOCs. APEX's Table 1 summarizes soil TPH-G and TPH-D/O concentrations, and APEX's Table 2 summarizes soil volatile organic compounds (VOC) concentrations. Groundwater analytical results are summarized in APEX's Table 4.
- The contaminated area near the satellite gasoline dispenser identified soil exceedances of MTCA Method A CULs for hazardous substances related to a petroleum release (APEX Table 1 and Table 2). The groundwater grab sample taken from soil boring SB-5, and the long term monitoring conducted at MW-5 showed TPH-D/O and related VOCs that were below the Method A CULs except for two exceedances of the CUL for EDB in April 2012 and May 2013 (APEX Table 3 and Table 4).
- Sufficient sampling has been conducted to vertically and horizontally define the extents of the contamination for both soil and groundwater. APEX's Figure 5, Figure 7, and Figure 8 demonstrate the horizontal and vertical extents of PCS, and APEX's Figure 6 demonstrates the extents of groundwater contamination.
- A soil vapor sample (VP-1) was taken from a depth of 2.5 feet to 3 feet below ground surface (bgs) on the west side of the warehouse building (APEX Figure 13).

The analytical results do not exceed the MTCA Method B Soil Gas Screening levels. APEX's Table 5 summarizes the analytical results for the soil gas sample; however, the MTCA Method B Soil Gas Screening Levels presented in Table 5 are not correct. The exceedance that APEX shows for a chloroform concentration of $2.0 \mu\text{g}/\text{m}^3$ is no longer applicable due to the screening level for chloroform increasing to $3.62 \mu\text{g}/\text{m}^3$. All other MTCA Method B Soil Gas Screening Levels have been increased from what is presented in Table 5. The leaking underground storage tank (LUST) relevant screening levels can be found in section two of this letter.

- MTBE has been present in some groundwater samples, but not at concentrations above the MTCA Method A CUL (APEX Table 4).
- EDB has been present in some groundwater samples, and has only occasionally been present at concentrations above the MTCA Method A CUL in wells MW-4 and MW-5. The most recent sampling for MW-4 and MW-5 did not have EDB at levels above the laboratory detection limit (APEX Table 4).
- Lead has been present in every soil sample that was analyzed for lead, but has not been present at concentrations above the MTCA Method A CUL (APEX Table 1). Lead has also been present occasionally in groundwater sample results, and has exceeded the MTCA Method A CUL once in MW-4 and once in MW-5 (APEX Table 4).

The exposure pathways for the Site as Ecology currently understands them are;

Soil-Direct Contact:

Incomplete. PCS has been remediated to concentrations below the MTCA Method A CULs.

Soil-Leaching:

Incomplete. It has been demonstrated through multiple quarters of sampling that contaminants have been remediated to concentrations below the MTCA Method A CULs and that significant soil leaching is no longer occurring.

Soil-Vapor:

Incomplete. A soil vapor sample was taken near the perimeter of the warehouse building that showed no exceedances of the MTCA Method B Soil Gas Screening Levels.

Groundwater:

Incomplete. It has been demonstrated that groundwater in both contamination areas has been remediated to concentrations below the MTCA Method A CUL.

Ecological:

Incomplete. The Site qualifies for an exclusion from further evaluation under WAC 173-340-7491(1)(c), Undeveloped Land.

The Site does not contain any of the chemicals listed in WAC 173-340-7491(1)(c), and there is less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any area of the Site.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

Standard points of compliance are currently being used for the Site.

- The point of compliance for protection of groundwater is established in the soils throughout the Site.
- For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance is established in the soils throughout the Site from the ground surface to 15 feet bgs.
- The point of compliance for the groundwater is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.
- The point of compliance for indoor air and soil gas is throughout the Site.

The unrestricted land use cleanup standards for the Site are as follows:

- For direct contact soils, Method A CULs are being applied. Applicable soil CULs are listed in the table below. It has been demonstrated through confirmation sampling that Method A CULs have been achieved.
- For soils protective of groundwater, Method A CULs are being applied, and it has been established by empirical demonstration that current contamination levels are protective of groundwater.
- For groundwater, Method A CULs are being applied. Because all detectible concentrations of hazardous substances have been sufficiently demonstrated to be below Method A CULs throughout the Site, Ecology believes that this will be protective of groundwater. Applicable groundwater CULs are listed in the table below.
- For soil-vapors, Method B Soil Gas Screening Levels are being applied. Remaining PCS is at concentrations below the Method A CULs, and soil vapor concentrations are below the Method B screening levels, so there is no soil-vapor concern at the Site. Applicable soil gas screening levels are listed in the table below.

<u>Method A Soil and Groundwater Cleanup Levels and Method B Soil-Vapor Screening Levels</u>			
Constituent of Concern	Method A soil CUL (mg/Kg)	Method A Groundwater CUL (µg/L)	Method B Sub- Slab Soil Gas Screening Level (µg/m³)
Benzene	0.03	5	10.7
Toluene	7	1,000	76,200
Ethylbenzene	6	700	15,200
Xylene	9	1,000	1,520
TPH-G	30*	800*	NONE
TPH-D/O	2,000	500	NONE
Lead	250	15	NONE
MTBE	0.1	20	321
EDB	0.005	0.01	0.139
EDC	NONE	5	3.21
* The CUL for TPH-G in soil and groundwater for the Site is established as the lower value because benzene is present in soil and groundwater at the Site.			

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

Ecology believes that the cleanup action meets the threshold requirements of WAC 173-340-360(2) in that:

- It is protective of human health and the environment, complies with cleanup standards, and complies with applicable state and federal laws.
- Ecology believes that the cleanup method used is permanent to the maximum extent practicable, and provided for cleanup in a reasonable time frame.
- Since groundwater contamination levels have remained below CULs for multiple sampling events, cleanup actions conducted are considered permanent for groundwater.
- The Site is not expected to be used as a school or residential property. Given the Site location and surrounding area future use of the Site is expected to continue as a fueling facility and light industrial center.
- PCS and groundwater have been remediated at the Site. Institutional controls are not required.

- Because both the source and most of the residual contamination at the Site have been remediated, future release or future migration are no longer a concern at the Site.
- Cleanup actions are not relying on dilution or dispersion.
- Remediation levels are not being used for this Site.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site. Cleanup activities performed at the Site are;

- Soils in the vicinity of the satellite gasoline dispenser were excavated to below the Method A CULs (APEX's Figure 14, Table 1, and Table 2). Because groundwater sampling of MW-5 did not show significant CUL exceedances, no groundwater cleanup efforts were conducted near the satellite gasoline dispenser (APEX's Table 4).
- Cleanup of soil and groundwater on the west side of the warehouse building consisted of removal of a previously unknown UST, and remediation using an air sparge and soil vapor extraction system (AS/SVE) (APEX's Figure 13). Confirmation soil sample borings (B-1 and B-2) were collected after approximately 18 months of AS/SVE system operation (APEX's Figure 15). Confirmation soil samples do not show TPH-G, TPH-D/O, BTEX, MTBE, EDB, or EDC results greater than the laboratory detection limits (APEX's Table 1 and Table 2).

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List.

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.

Mr. Skip Tarr
January 31, 2018
Page 8

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).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW1174).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (360) 407-6437 or at aaren.fiedler@ecy.wa.gov.

Sincerely,



Aaren Fiedler
SWRO Toxics Cleanup Program

AF: kb

By Certified Mail: [91 7199 9991 7037 7471 8866]

Enclosures: A – Description, Diagrams, and Tables of the Site

cc: John Foxwell, APEX
Stephanie Bussell, Ecology
Nicholas Acklam, Ecology

Enclosure A

Description, Diagrams and Tables of the Site

Site Description

Site Location, Use, & Contamination:

The Site, identified as TARR INC is located at 7208 NE St. Johns Rd., Vancouver, 98665, Clark County. The property currently operates as a Pacific Pride branded, unattended gasoline and diesel dispenser with a warehouse, shop, and office spaces. The operation is comprised of two separate parcels (IDs 149261000, and 149264000). The immediate area surrounding the Site is light industrial and commercial. A set of railroad tracks are located across NE St. Johns Rd. from the Site. Site figures and a location map are included in the Site Diagrams section.

The two parcels are approximately 0.1 acres and 1.54 acres in size. The releases occurred on the larger parcel (ID 149264000). The smaller parcel (ID 149261000) contains an office building that is being used by a trucking company (JW Dart & Sons). The larger parcel (ID 149264000), where the Site is located contains the fueling facilities, as well as a shop building, and a warehouse with an attached office space that are used to support TARR INC's operations. The Site has one 10,000-gallon diesel underground storage tank (UST), one 5,000-gallon gasoline UST, and one 3,000-gallon gasoline UST. There are gasoline dispenser islands beneath a canopy at the south end of the property, a satellite diesel dispenser located south of the canopy, and a satellite gasoline dispenser located north of the canopy near the office space that is attached to the warehouse. Additionally, there is one 6,000-gallon off-road diesel aboveground storage tank (AST), and two 250-gallon ASTs that are used for new and used oil.

There were two distinct contamination areas at the Site. One contamination area was located near the satellite gasoline dispenser near the office space and consisted of shallow petroleum contaminated soil. The other contamination area was located west of the warehouse building near the 3,000-gallon gasoline UST. Soil and groundwater were contaminated with petroleum related hazardous substances in the second area.

Geology:

The Site is comprised predominantly of sands with various amounts of silt, clay, and gravel with interbedded silts and gravels. The groundwater flow direction is to the west (APEX Figure 9 and Figure 10). There are no known surface water bodies of note near the Site.

Site History

Discovery (March 2011):

A Phase II Environmental Site Assessment (PII) was conducted in March 2011 by Ash Creek Associates (Ash Creek) because the underground storage tanks (UST) located on the Site were identified as Recognized Environmental Concerns (REC). The PII consisted of borings that targeted the areas of the USTs and dispenser islands located beneath the canopy (SB-2, SB-3, SB-4, and SB-8), the satellite diesel dispenser (SB-1), the satellite gasoline dispenser (SB-5), and the 3,000-gallon gasoline UST located on the west side of the warehouse building (SB-6 and SB-7). Only two of the borings showed contaminated soil, SB-5 located near the satellite gasoline dispenser, and SB-6 located near the UST on the west side of the warehouse building.

RI/FS and CAP (April through May 2011):

Ash Creek completed additional investigations in April and May of 2011 to define the extents of the contamination. Additional borings were advanced near the satellite gasoline dispenser (SB-9, SB-10, and SB-11), and the 3,000-gallon gasoline UST (SB-13, SB-14, and SB-15). Boring SB-12 was advanced between the two areas of contamination. Monitoring wells (MW-1, MW-2, and MW-3) were installed around the 3,000-gallon gasoline UST. None of the borings showed exceedances of the MTCA Method A CULs, though SB-12 and SB-13 did show petroleum contaminated soil (PCS) below the CULs. Soil and groundwater samples collected from MW-1 show MTCA Method A CUL exceedances for TPH-G, and BTEX constituents. Based on the results of this additional sampling, a Remedial Investigation/Feasibility Study (RI/FS) and Cleanup Action Plan (CAP) were submitted to Ecology. Soil vapor extraction (SVE), excavation, capping, in-situ enhanced bioremediation, and natural attenuation were considered as possibilities for different areas of the Site. It was determined that SVE was the best option for the contaminated area west of the warehouse building. It was determined that excavation was the best option for the contaminated area near the satellite gasoline dispenser.

Ecology Response (October 2011):

Ecology determined that the Site had been sufficiently delineated and approved of the CAP proposed by Ash Creek in October 2011. Ecology did have additional requests that could be completed as part of the cleanup activities. These included the sampling of groundwater near SB-5, and installation of a permanent monitoring well, and inclusion of this area in the cleanup action if contaminated groundwater was discovered; and a vapor intrusion preliminary assessment.

Remedial Activities (May through June 2012):

Excavation were completed in May 2012 by Ash Creek. Soils were removed down to a maximum depth of 4 feet in the vicinity of the satellite gasoline dispenser. Field screening was used to determine when all contaminated soils had been removed, and confirmation soil samples were collected from the excavation sidewalls and floor. All excavation confirmation samples were analyzed for TPH-G and showed no concentrations above the laboratory detection limits.

The SVE system was installed between May and June 2012 by Ash Creek, and included air sparging (AS). During these activities, a previously unknown 1,000-gallon UST was discovered south of the 3,000-gallon gasoline UST. This UST was removed and over excavation of contaminated soils located beneath the UST was completed. Soil samples taken from the limits of the UST removal excavation did show MTCA Method A CULs exceedances, and the AS/SVE system was expanded to include this area as well. Two SVE wells and four AS wells were installed in the contaminated area around the 3,000-gallon UST and former 1,000-gallon UST.

Additional monitoring wells (MW-4 and MW-5) were installed in June 2012 by Ash Creek. MW-5 was installed near SB-5 as requested by Ecology in the October 2011 opinion letter, and MW-4 was installed near the former 1,000-gallon UST.

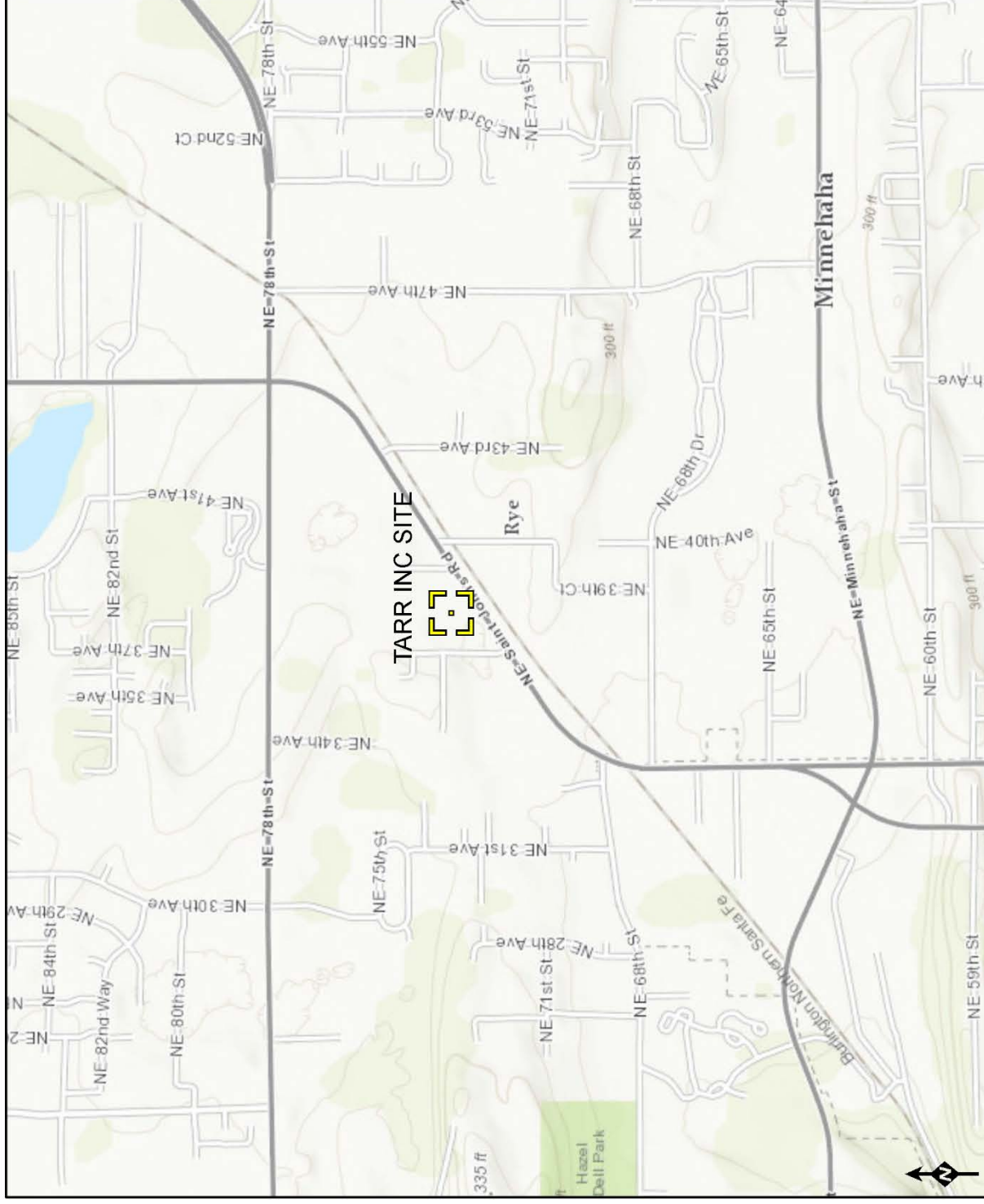
A sub-slab soil vapor sample was also collected near the west side of the warehouse building. TPH, BTEX constituents, and various other volatile organic compounds (VOC) were present. None of the BTEX constituents or VOCs exceeded the MTCA Method B Soil Gas Screening Levels.

Remediation Confirmation:

The AS/SVE system was operated from September 2012 through January 2014, and was restated in September 2014 and operated until December 2014. Two soil confirmation samples (B-1 and B-2) were collected by APEX near areas that had historically had high contamination levels. Both soil samples showed no detectible concentrations of TPH-G, TPH-D/O, or any of the VOCs that were analyzed (VOC analysis included EDB, EDC, BTEX, MTBE, and others). Following remedial actions groundwater contamination has been reduced to concentrations below the MTCA Method A CULs. MW-2 and MW-3 never showed detectible concentrations of hazardous substances (COCs) and sampling at these wells was suspended in July 2015 (MW-2) and June 2011 (MW-3). MW-1 did not indicate any CULs exceedances over a year of sampling (December 2015 through December 2016), though the sampling did not occur over consecutive quarters. MW-5 has not shown a CUL exceedance since May 2013. MW-4 has shown no CULs exceedances since October 2013 except for an EDB exceedance in July 2015. It should be noted that the June 2016 sampling event did have the NWTPH-DX analysis run using silica gel cleanup (SGC). MW-4 and MW-5 have sufficient sampling (at least four quarters) prior to June 2016 to demonstrate that TPH-D/O concentrations no longer exceed CULs at these wells. MW-1 has one sampling event prior to June 2016 and two sampling event after June 2016 that show TPH-D/O concentrations below the CUL and sufficiently demonstrates that TPH-D/O is below CULs at this well.

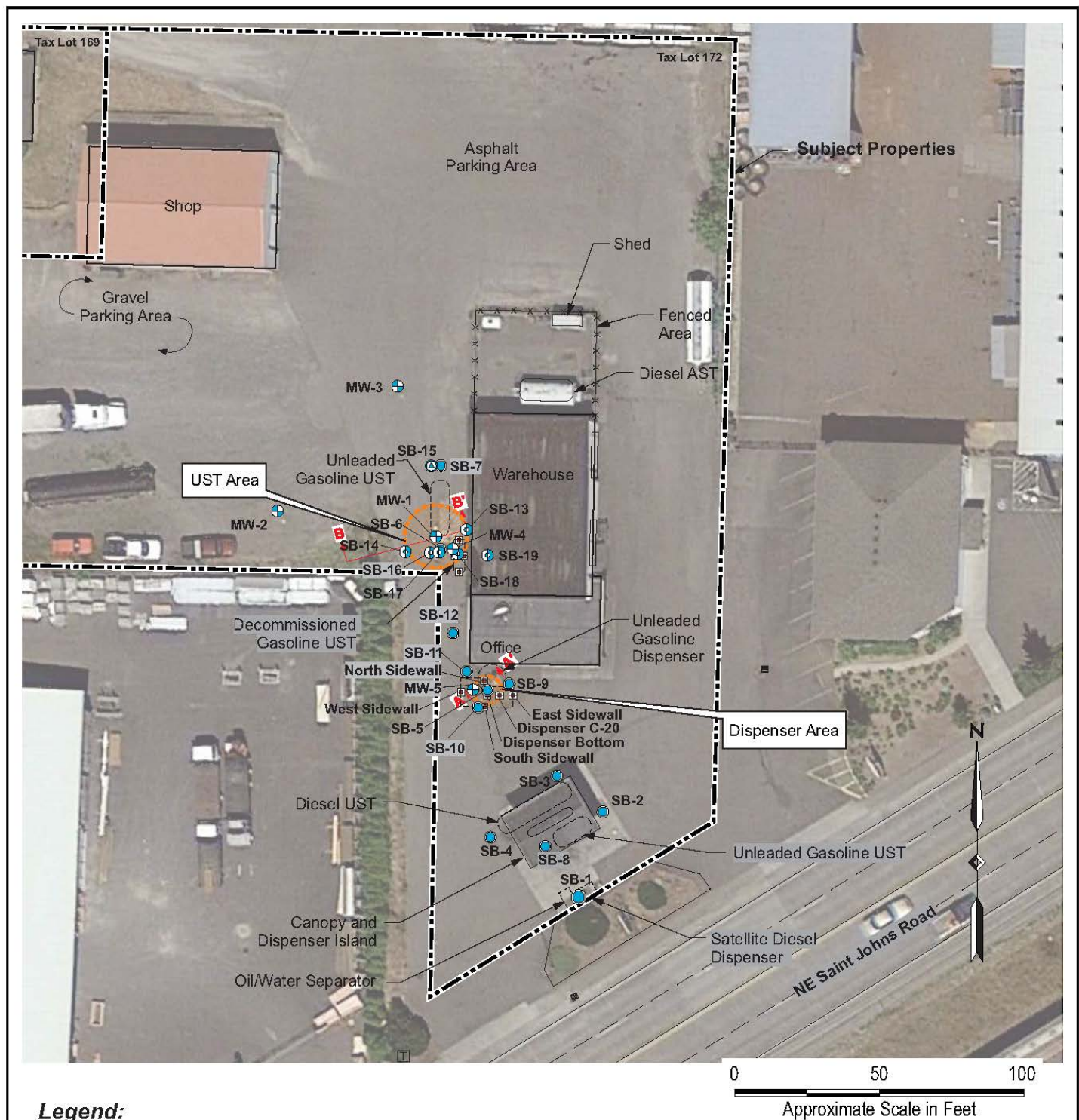
Site Diagrams

Site Location Map; TARR INC SITE



Sources: Esri, HERE, DeLorme, Intermap, increment P. Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©





Legend:

MW-1	Monitoring Well Location
SB-15	Groundwater Exploration
East Sidewall	Soil Grab Sample Location
SB-12	Soil and Groundwater Exploration
SB-1	Soil Boring Location
VP-1	Vapor Point Location
	Transformer Location
	Catch Basin Location
	Unleaded Gasoline Dispenser Excavation

Notes: 1) Base map prepared from 2016 - Google Earth Pro imagery and site reconnaissance by Apex personnel.
2) Site feature locations and dimensions are approximate.

Remedial Action Areas

Tarr, LLC Vancouver Cardlock
7208 NE St. Johns Road
Vancouver, Washington

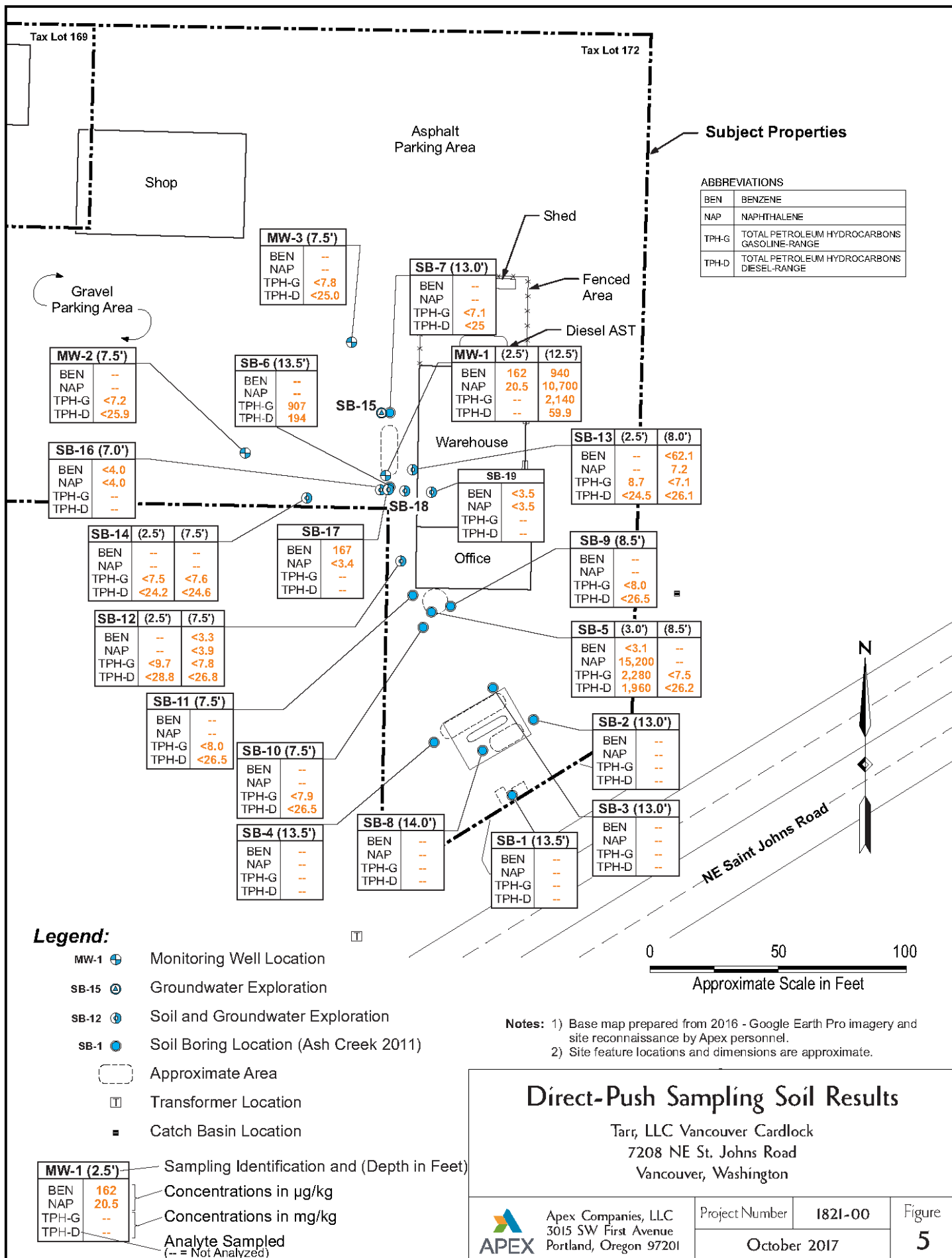
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

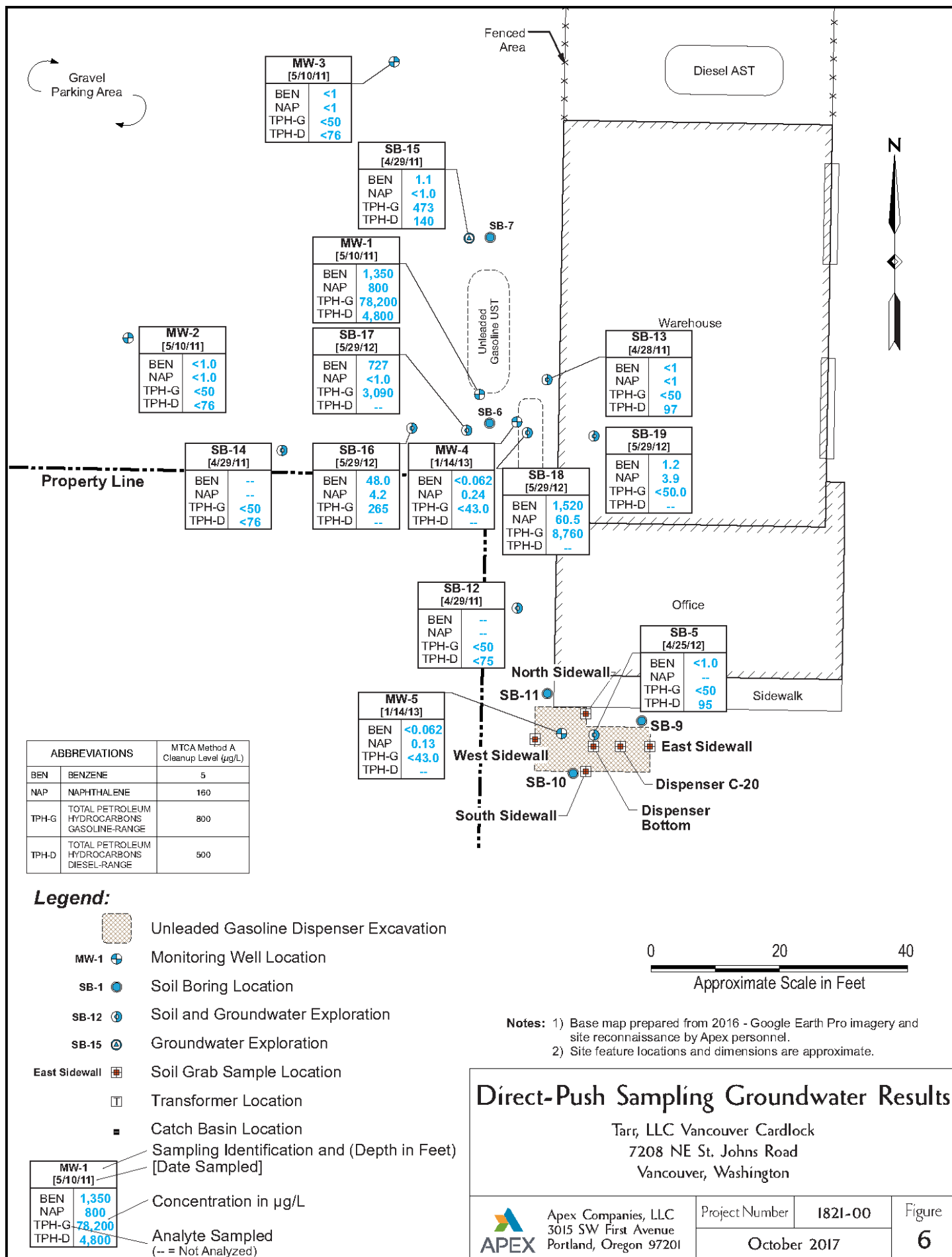
Project Number 1821-00

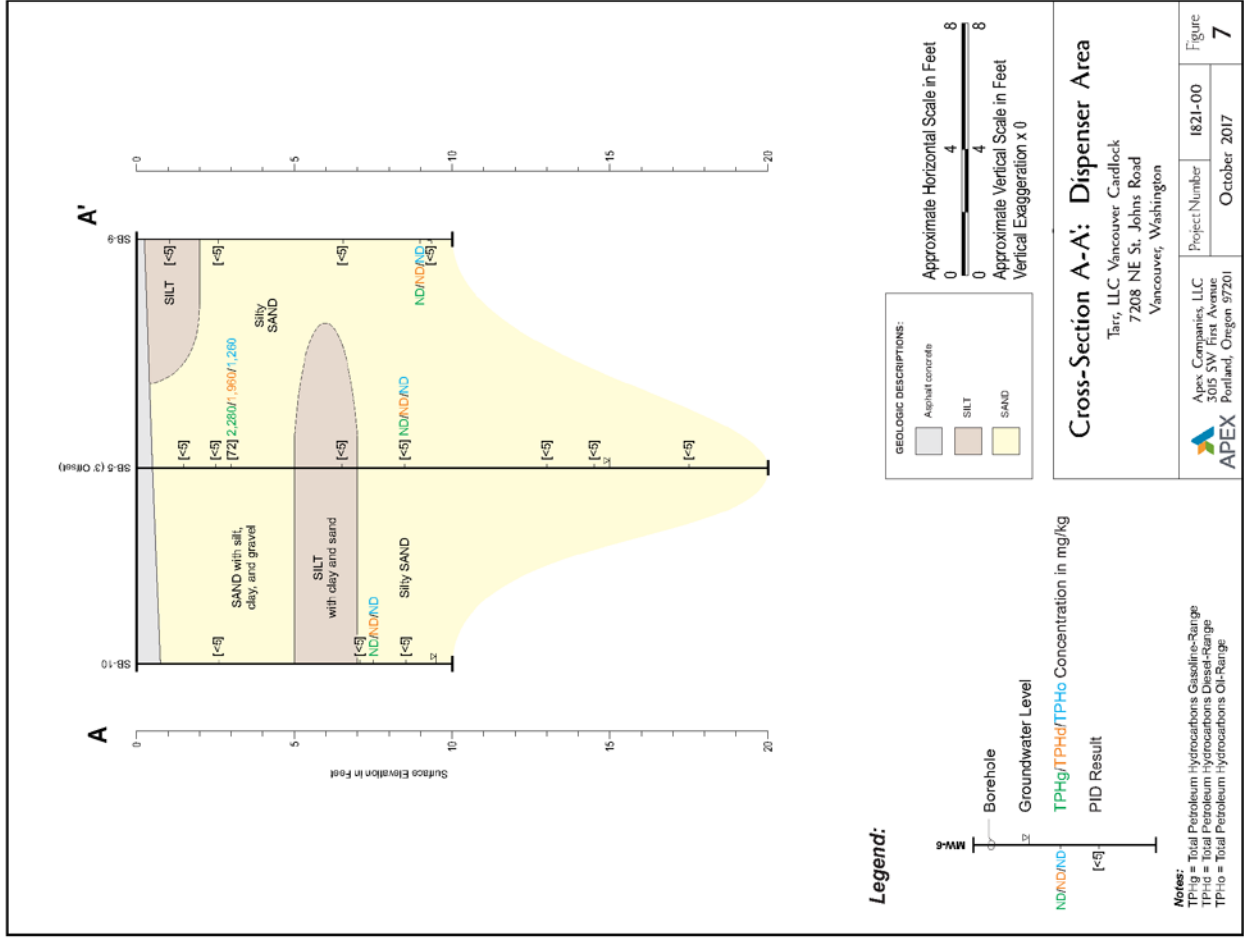
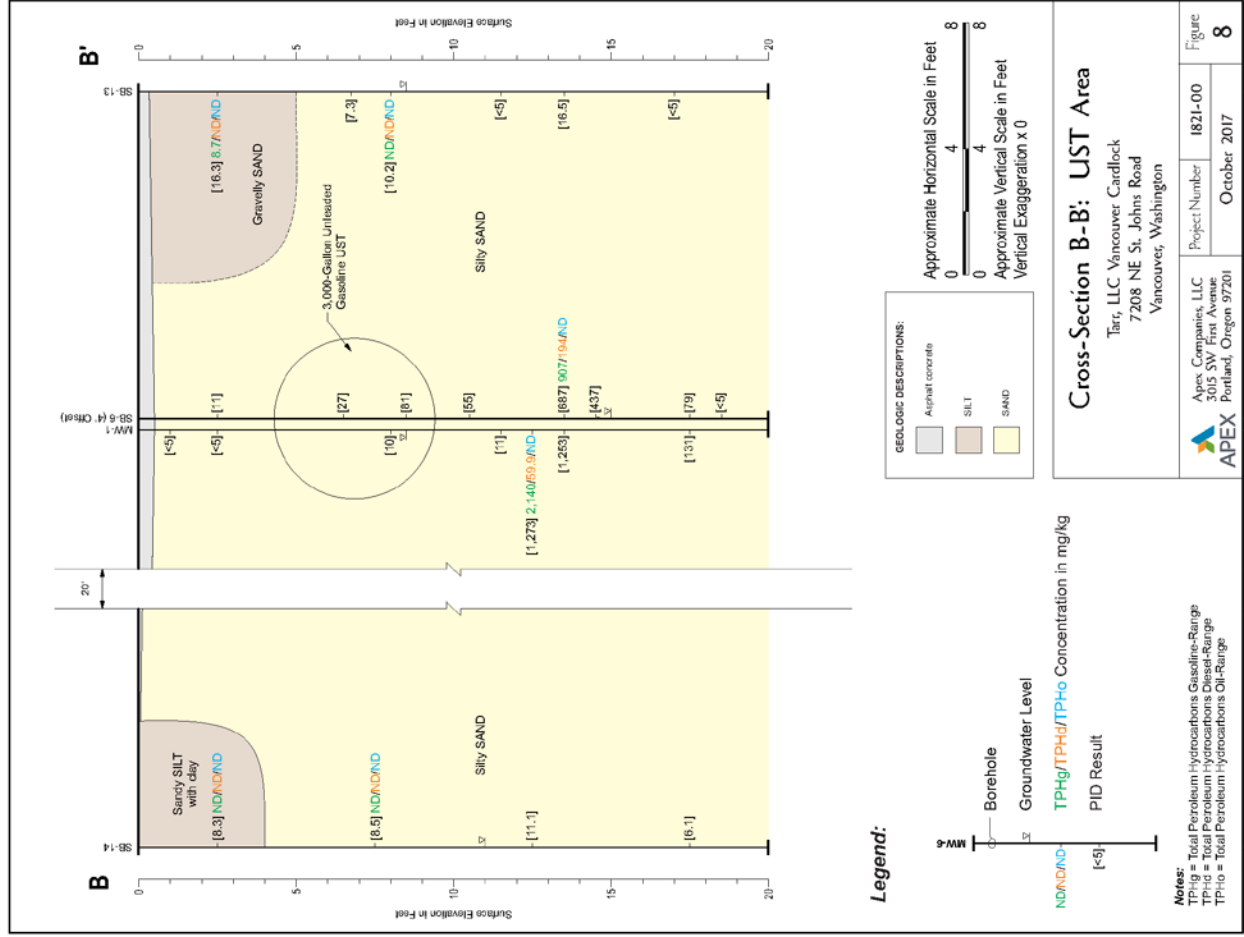
October 2017

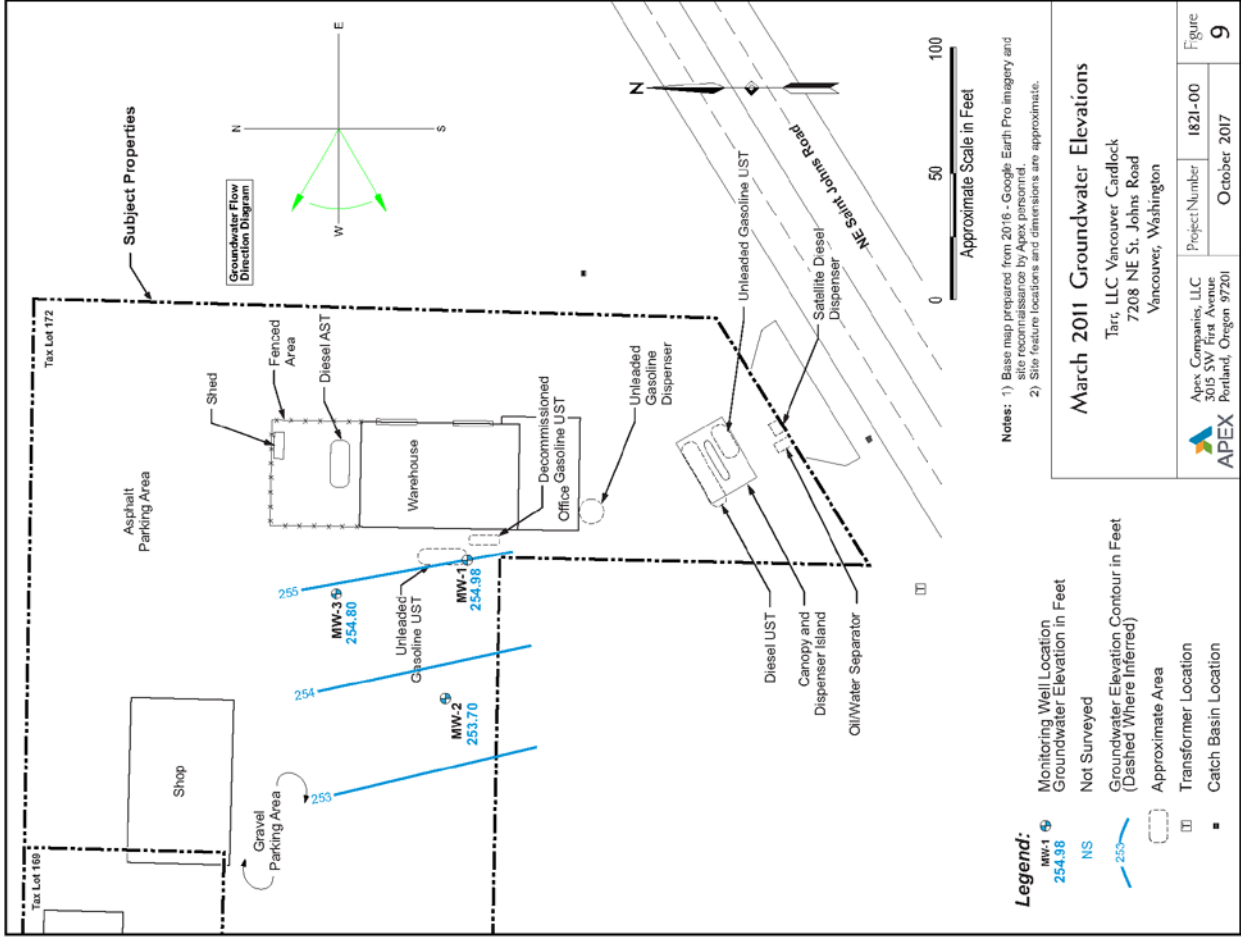
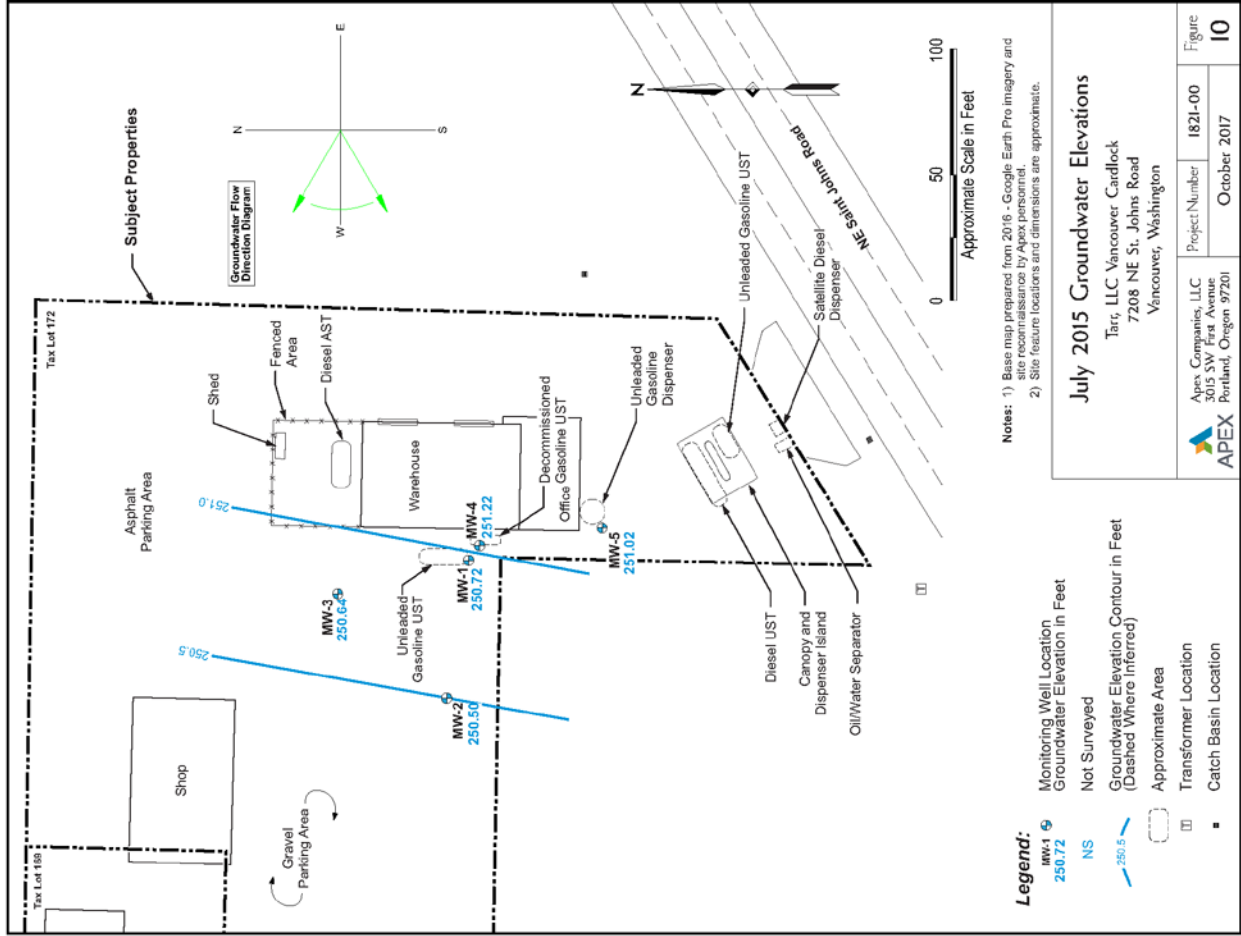
Figure

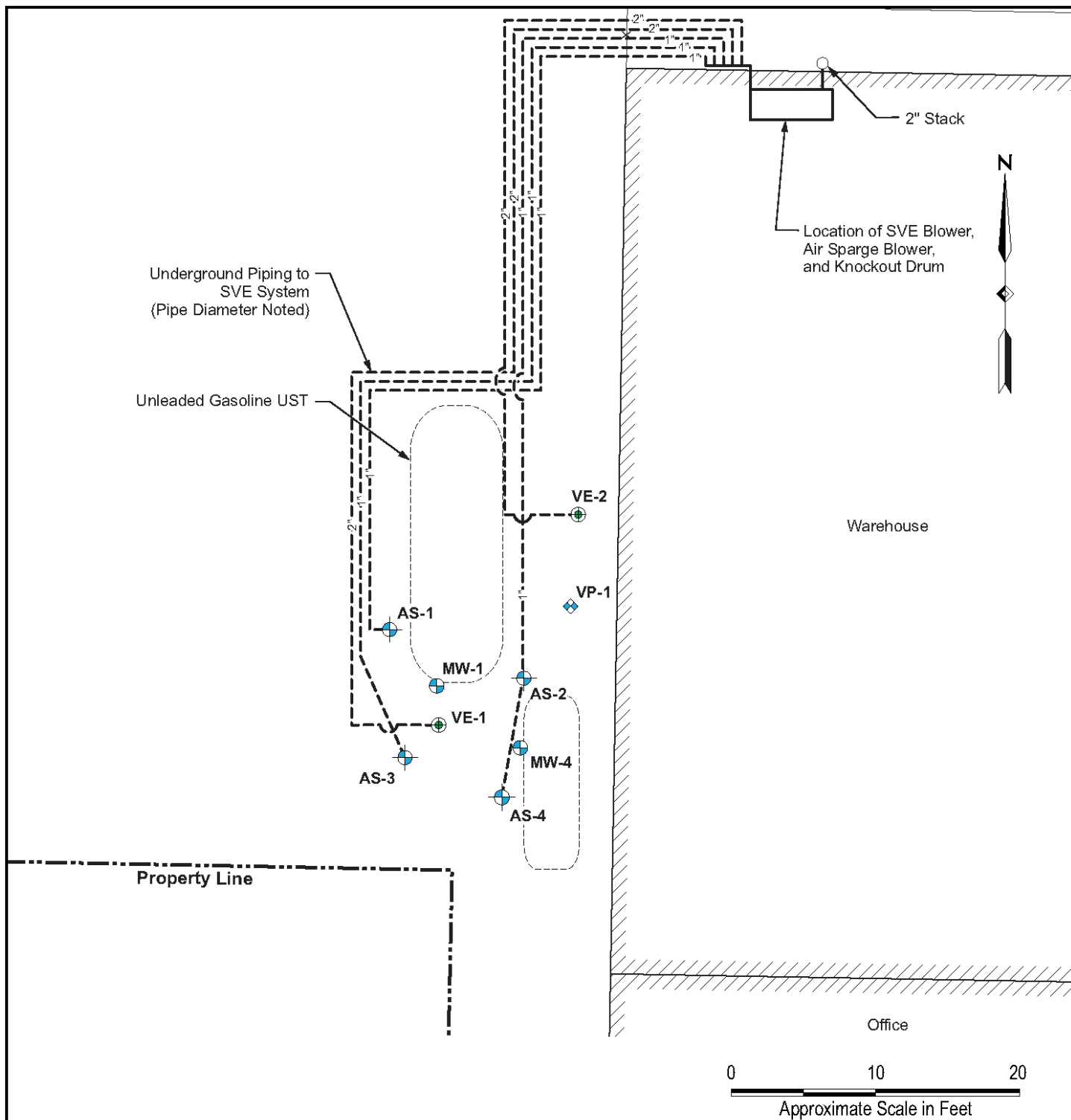
4















Notes: 1) Base map prepared from 2016 - Google Earth Pro imagery and site reconnaissance by Apex personnel.
2) Site feature locations and dimensions are approximate.

Legend:

- MW-1  Monitoring Well Location
- VP-1  Vapor Point Location
- VE-1  Soil Vapor Extraction Well Location
- AS-1  Air Sparge Well Location

AS/SVE SVE System

Tarr, LLC Vancouver Cardlock
7208 NE St. Johns Road
Vancouver, Washington



Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

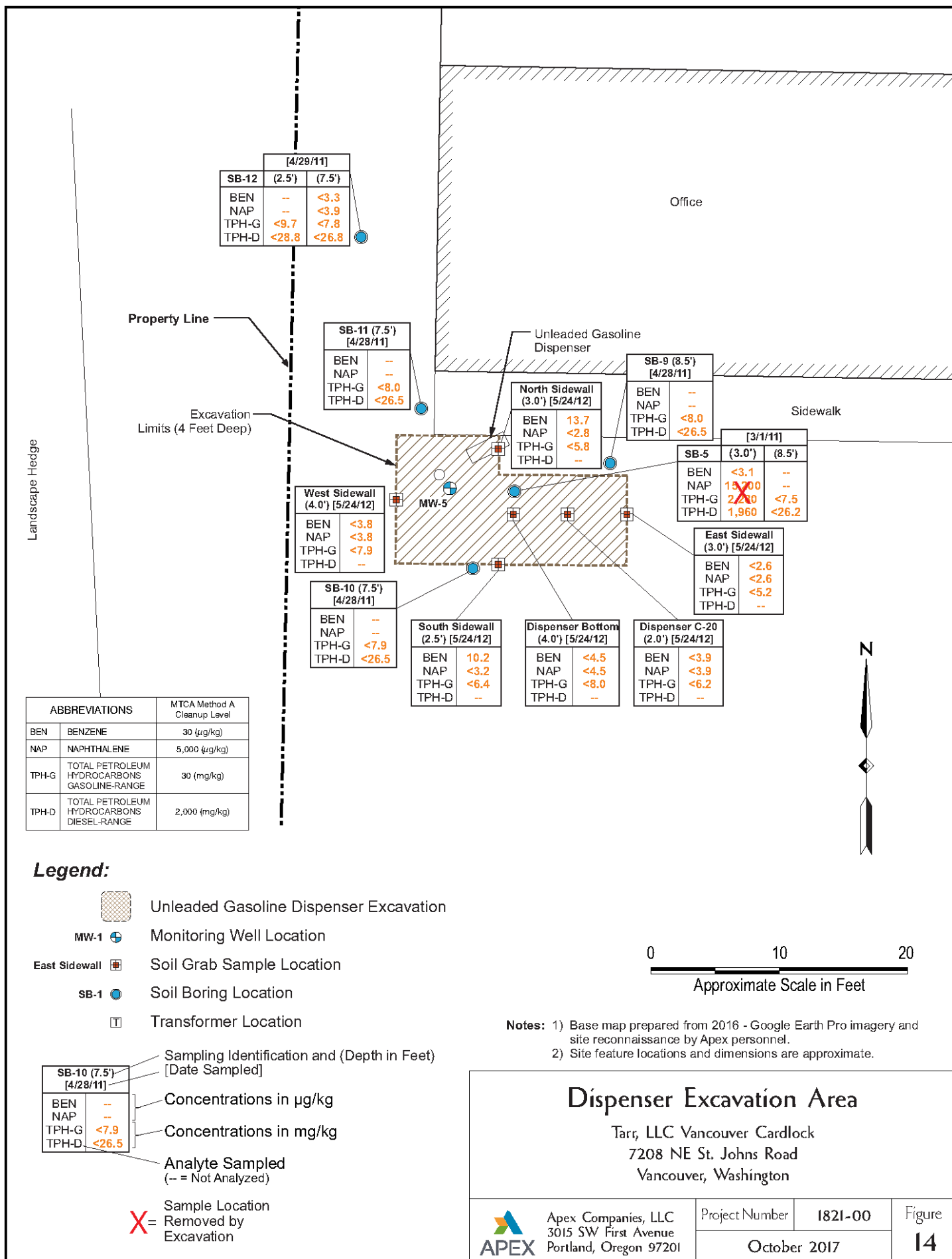
Project Number

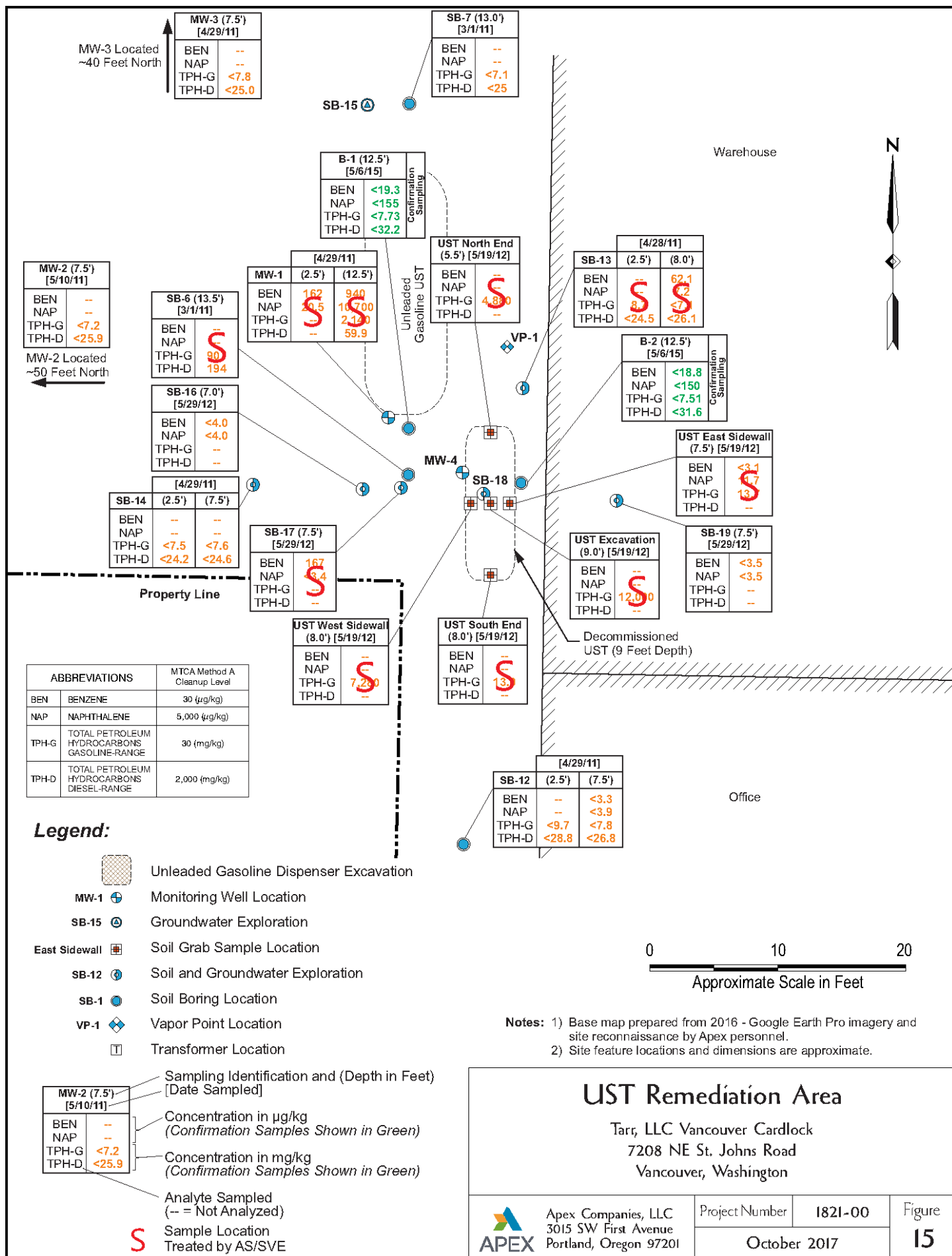
1821-00

October 2017

Figure

13





Site Tables

Table 1
Soil Analytical Results: TPH, Lead, and PAHs
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: Sample Date: Depth:	SB-1 (13.5)	SB-2 (13.0)	SB-3 (13.0)	SB-4 (13.5)	SB-5 (3.0)	SB-5 (8.5)	SB-6 (13.5)	SB-7 (13.0)	SB-8 (14.0)	SB-9 (8.5)	SB-10 (7.5)	SB-11 (7.5)	SB-12 (2.9)	Washington MTCA Soil Method A Table Value
	3/1/2011	3/1/2011	3/1/2011	3/1/2011	3/1/2011	3/1/2011	3/1/2011	3/1/2011	3/1/2011	4/28/2011	4/28/2011	4/29/2011	4/29/2011	
	13.5 feet	13.0 feet	13.0 feet	13.5 feet	3.0 feet	8.5 feet	13.5 feet	13 feet	14 feet	8.5 feet	7.5 feet	7.5 feet	2.5 feet	
Hydrocarbon Identification														
Gasoline Range	ND	ND	ND	ND	Detected	--	Detected	--	ND	--	--	--	--	--
Diesel Range	ND	ND	ND	ND	Detected	--	Detected	--	ND	--	--	--	--	--
Motor Oil Range	ND	ND	ND	ND	Detected	--	--	--	ND	--	--	--	--	--
Petroleum Hydrocarbons (mg/kg)														
Gasoline	--	--	--	--	2,289	<7.5	907	<7.1	--	<8.0	<7.9	<8.0	<3.7	30/100*
Diesel	--	--	--	--	1,469	<26.2	194	<25	--	<26.5	<26.5	<26.5	<28.8	2,000
Motor Oil	--	--	--	--	1,269	<105	<94.5	<100	--	<106	<106	<106	137	2,000
Metals (mg/kg)														
Lead	--	--	--	--	--	--	--	--	--	--	--	--	--	250
PAHs (µg/kg)														
1-Methylnaphthalene	--	--	--	--	6,369	--	--	--	--	--	--	--	--	5,000**
2-Methylnaphthalene	--	--	--	--	13,300	--	--	--	--	--	--	--	--	5,000**
Acenaphthene	--	--	--	--	34.7	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	16.5	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	12.8	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	8.1	--	--	--	--	--	--	--	--	--
Benzo(b)pyrene	--	--	--	--	28.5	--	--	--	--	--	--	--	--	100
Benzo(k)fluoranthene	--	--	--	--	26.9	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	52	--	--	--	--	--	--	--	--	--
Benzo(a)fluoranthene	--	--	--	--	10.4	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	68.2	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	15.1	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	15.2	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	46.3	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	15.6	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	8,489	--	--	--	--	--	--	--	--	5,000**
Phenanthrene	--	--	--	--	96.7	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	22.5	--	--	--	--	--	--	--	--	--

Please see notes at end of table.

Table 1

Soil Analytical Results: TPH, Lead, and PAHs
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: Sample Date: Depth:	SB-12 (7.5)	SB-13 (2.5)	SB-13 (8.0)	SB-14 (2.5)	SB-14 (7.5)	MW-1 (12.5)	MW-2 (7.5)	MW-3 (7.5)	UST Excavation - 9'	UST - East Sidewalk - 7.5'	UST - South End - 8'	UST - North End - 5.5'	Washington MTCA Soil Method A Table Value
	4/29/2011	4/28/2011	4/28/2011	4/28/2011	4/29/2011	4/28/2011	4/28/2011	4/29/2011	5/19/2012	5/19/2012	5/19/2012	5/19/2012	MTCA Soil Method A Table Value
	7.5 feet	2.5 feet	8.0 feet	2.5 feet	7.5 feet	12.5 feet	7.5 feet	7.5 feet	9 feet	7.5 feet	8 feet	5.5 feet	
Hydrocarbon Identification													
Gasoline Range	--	--	--	--	--	--	--	--	Detected	--	--	--	--
Diesel Range	--	--	--	--	--	--	--	--	Detected	--	--	--	--
Motor Oil Range	--	--	--	--	--	--	--	--	ND	--	--	--	--
Petroleum Hydrocarbons (mg/kg)													
Gasoline	<7.8	8.7	<7.1	<7.5	<7.6	2.140	<7.2	<7.8	12000	13.7	13.0	4880	30/100*
Diesel	<28.8	<24.5	<26.1	<24.2	<24.6	58.9	<25.9	<25.0	--	--	--	--	2,000
Motor Oil	<107	<88.1	<105	<95.9	<98.4	<104	<104	<100	--	--	--	--	2,000
Metals (mg/kg)													
Lead	--	46.8	--	11.1	--	8.5	--	--	--	8.6	--	--	250
PAHs (µg/kg)													
1-Methylnaphthalene	<3.1	--	--	--	--	1.380	--	--	--	--	--	--	5,000**
2-Methylnaphthalene	<3.1	--	--	--	--	3.190	--	--	--	--	--	--	5,000**
Acenaphthene	<3.1	--	--	--	--	23.5	--	--	--	--	--	--	--
Acenaphthylene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Anthracene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Benzo(a)anthracene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Benzo(a)pyrene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	100
Benzo(b)fluoranthene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Benzo(k)fluoranthene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Chrysene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Fluorene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	<3.1	--	--	--	--	52.0	--	--	--	--	--	--	--
Naphthalene	<3.1	--	--	--	--	<3.9	--	--	--	--	--	--	--
Phenanthrene	<3.1	--	--	--	--	3.360	--	--	--	--	--	--	5,000**
Pyrene	<3.1	--	--	--	--	84.2	--	--	--	--	--	--	--

Please see notes at end of table.

Table 1
Soil Analytical Results: TPH, Lead, and PAHs
Tair Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: UST - West Side Wall - 8"	Sample Date:	Depth:	Stockpile	North Sidewall	South Sidewall	East Sidewall	West Sidewall	Dispenser C-20	Ex Bottom	Stockpile 2	Washington MTCA Soil Method A Table Value
			5/19/2012	5/24/2012	5/24/2012	5/24/2012	5/24/2012	5/24/2012	5/24/2012	8/7/2012	
		8 feet	--	3.0	2.5	3.0	4.0	2.0	4.0	--	
Hydrocarbon Identification											
Gasoline Range			--	--	--	--	--	--	--	--	--
Diesel Range			--	--	--	--	--	--	--	--	--
Motor Oil Range			--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons (mg/kg)											
Gasoline			<2	<8	<4	<2	<9	<2	<8.0	--	30/100*
Diesel			--	--	--	--	--	--	--	--	2,000
Motor Oil			--	--	--	--	--	--	--	--	2,000
Metals (mg/kg)											
Lead			24.60	--	--	--	--	--	--	11.5	250
PAHs (µg/kg)											
1-Methylnaphthalene			--	--	--	--	--	--	--	--	5,000**
2-Methylnaphthalene			--	--	--	--	--	--	--	--	5,000**
Acenaphthene			--	--	--	--	--	--	--	--	--
Acenaphthylene			--	--	--	--	--	--	--	--	--
Anthracene			--	--	--	--	--	--	--	--	--
Benzo(a)anthracene			--	--	--	--	--	--	--	--	--
Benzo(b)pyrene			--	--	--	--	--	--	--	--	100
Benzo(b)fluoranthene			--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene			--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene			--	--	--	--	--	--	--	--	--
Chrysene			--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene			--	--	--	--	--	--	--	--	--
Fluoranthene			--	--	--	--	--	--	--	--	--
Fluorene			--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene			--	--	--	--	--	--	--	--	5,000**
Naphthalene			--	--	--	--	--	--	--	--	--
Phenanthrene			--	--	--	--	--	--	--	--	--
Pyrene			--	--	--	--	--	--	--	--	--

Please see notes at end of table.

Table 1
Soil Analytical Results: TPH, Lead, and PAHs
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: Sample Date: Depth:	B-1	B-2	Washington MTCA Soil Method A Table Value
	5/6/2015	5/6/2015	
	12.5 feet	12.5 feet	
Hydrocarbon Identification			
Gasoline Range	--	--	--
Diesel Range	--	--	--
Motor Oil Range	--	--	--
Petroleum Hydrocarbons (mg/kg)			
Gasoline	<7.73	<7.51	30/100*
Diesel	<32.2	<31.6	2,000
Motor Oil	<64.3	<63.2	2,000
Metals (mg/kg)			
Lead	5.32	7.47	250
PAHs (µg/kg)			
1-Methylnaphthalene	--	--	5,000**
2-Methylnaphthalene	--	--	5,000**
Acenaphthene	--	--	--
Acenaphthylene	--	--	--
Anthracene	--	--	--
Benzo(a)anthracene	--	--	--
Benzo(a)pyrene	--	--	100
Benzo(b)fluoranthene	--	--	--
Benzo(g,h,i)perylene	--	--	--
Benzo(k)fluoranthene	--	--	--
Chrysene	--	--	--
Dibenz(a,h)anthracene	--	--	--
Fluoranthene	--	--	--
Fluorene	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--
Naphthalene	--	--	5,000**
Phenanthrene	--	--	--
Pyrene	--	--	--

Notes:

1. mg/kg = Milligrams per kilogram (parts per million [ppm])
2. µg/kg = Micrograms per kilogram (parts per billion [ppb])
3. < = Not detected above the indicated method reporting limit (MRL)
4. **Bold** indicates detected concentration of listed analyte
5. Shading indicates detected concentration exceeding at least one screening value
6. -- = Not analyzed or cleanup level not established
7. 30/100* = MTCA Method A cleanup values for TPH-G when benzene is present (30 mg/kg) or when no detectable benzene is present (100 mg/kg)
8. **5,000 = MTCA Method A cleanup level for sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene

Table 2
Soil Analytical Results: VOCs
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: Depth: Sample Date:	SB-5 (3.0) 3.0 3/12/2010	SB-12 (7.5) 7.5 4/29/2011	SB-13 (8.0) 8.0 4/28/2011	SB-16 (7) 7.0 5/29/2012	SB-17 (7.5) 7.5 5/29/2012	SB-19 (7.5) 7.5 5/29/2012	MW-1 (2.5) 2.5 4/29/2011	MW-1 (12.5) 12.5 4/29/2011	Soil, Method A, Unrestricted Land Use, Table Value
VOCs (µg/kg)									
Acetone	<40.6	<11.0	17.1	20.3	<11.5	43.5	155	259	--
tert-Butylmethyl ether	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Benzene	<2.4	<3.3	62.1	<4.0	167	<3.5	162	940	30
Bromobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Bromochloromethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Bromodichloromethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Bromoform	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Bromomethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
2-Butanone	28.7	<11.0	<11.3	<13.2	<11.5	<11.5	<14.1	<11.6	--
n-Butylbenzene	206	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
sec-Butylbenzene	460	<3.3	4.5	<4.0	<3.4	<3.5	8.4	1,400	--
tert-Butylbenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Carbon disulfide	2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Carbon tetrachloride	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Chlorobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Chloroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Chloroform	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Chloromethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
2-Chlorotoluene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
4-Chlorotoluene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2-Dibromo-3-chloropropane	<6.2	<5.5	<5.6	<6.6	<5.7	<5.8	<7.0	<5.8	--
Dibromochloromethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2-Dibromoethane (EDB)	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Dibromomethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2-Dichlorobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,3-Dichlorobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,4-Dichlorobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Dichlorodifluoromethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,1-Dichloroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2-Dichloroethane	<2.4	<6.6	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2-Dichloroethene (Total)	6.2	<3.3	<6.8	<7.9	<6.9	<6.9	<8.5	<7.0	--
1,1-Dichloroethene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
cis-1,2-Dichloroethene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
trans-1,2-Dichloroethene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2-Dichloropropane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,3-Dichloropropane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
2,2-Dichloropropane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,1-Dichloropropene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
cis-1,3-Dichloropropene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
trans-1,3-Dichloropropene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Ethylbenzene	24.6	<3.9	79.5	<4.0	47.2	<3.5	34.3	21,300	6000
Hexachloro-1,3-butadiene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
2-Hexanone	46.6	<11.0	<11.3	<13.2	<11.5	<11.5	<14.1	<11.6	--
Isopropylbenzene (Cumene)	67.4	<3.9	11.3	<4.0	4.9	<3.5	9.2	3,010	--
p-Isopropyltoluene	266	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	806	--
Methylene chloride	<40.6	<11.0	<11.3	<13.2	<11.5	<11.5	<14.1	<11.6	20
4-Methyl-2-pentanone (MIBK)	<40.6	<11.0	<11.3	<13.2	<11.5	<11.5	<14.1	<11.6	--
Methyl-tert-butyl ether	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
n-Propylbenzene 141	141	<3.9	28.2	<4.0	11.2	<3.5	<3.5	11,100	--
Styrene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,1,1,2-Tetrachloroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,1,2,2-Tetrachloroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Tetrachloroethene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	50
Toluene	8.6	<3.9	14.8	<4.0	<3.4	<3.5	27.3	712	7000
1,2,3-Trichlorobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2,4-Trichlorobenzene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,1,1-Trichloroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	2000
1,1,2-Trichloroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Trichloroethene	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	30
Trichlorofluoromethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,2,3-Trichloropropane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
1,1,2-Trichlorotrifluoroethane	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Vinyl chloride	<2.4	<3.3	<3.4	<4.0	<3.4	<3.5	<4.2	<3.5	--
Xylene (Total)	281	<11.6	42.5	<11.9	69.7	<10.4	141	143,000	9000
m&p-Xylene	190	<7.7	307	<7.9	66.2	<6.9	118	113,000	--
o-Xylene	101	<3.9	11.8	<4.0	3.5	<3.5	22.9	28,800	--
Naphthalene	46,200	<3.9	7.2	<4.0	<3.4	<3.5	20.5	10,700	5000
1,2,4-Trimethylbenzene	64,000	<3.9	<3.4	<4.0	72.1	<3.5	3270	120,000	--
1,3,5-Trimethylbenzene	42,800	<3.9	24.7	<4.0	<3.4	<3.5	89.3	34,300	--

Please see notes at end of table.

Table 2
Soil Analytical Results: VOCs
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: Depth: Sample Date:	UST - East Sidewall - 7.5' 7.5 5/19/2012	Stockpile -- 5/19/2012	North Sidewall 3.0 5/24/2012	South Sidewall 2.5 5/24/2012	East Sidewall 3.0 5/24/2012	West Sidewall 4.0 5/24/2012	Dispenser C-20 2.0 5/24/2012	Ex Bottom 4.0 5/24/2012	Stockpile-2 -- 6/7/2012	Soil, Method A, Unrestricted Land Use, Table Value
VOCs (µg/kg)										
Acetone	<10.2	11.1	40.1	71.2	54.1	130	193	98.2	<11.3	--
tert-Butylmethyl ether	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Benzene	<3.1	<2.6	13.7	10.2	<2.6	<3.8	<3.9	<4.5	<3.4	30
Bromobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Bromochloromethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Bromodichloromethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Bromoform	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Bromomethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
2-Butanone	<10.2	<8.6	<9.3	<10.5	<8.6	<12.6	36.8	<14.9	<11.3	--
n-Butylbenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
sec-Butylbenzene	4.3	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
tert-Butylbenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Carbon disulfide	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Carbon tetrachloride	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Chlorobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Chloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Chloroform	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Chloromethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
2-Chlorotoluene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
4-Chlorotoluene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2-Dibromo-3-chloropropane	<3.1	<4.3	<4.7	<5.3	<4.3	<6.3	<6.5	<7.5	<5.7	--
Dibromochloromethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2-Dibromoethane (EDB)	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Dibromomethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2-Dichlorobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,3-Dichlorobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,4-Dichlorobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Dichlorodifluoromethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,1-Dichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2-Dichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2-Dichloroethane (Total)	<6.1	<5.1	<5.6	<6.3	<5.1	<7.6	<7.8	<8.9	<6.8	--
1,1,1-Dichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
cis-1,2-Dichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
trans-1,2-Dichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2-Dichloropropane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,3-Dichloropropane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
2,2-Dichloropropane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,1-Dichloropropene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
cis-1,3-Dichloropropene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
trans-1,3-Dichloropropene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Ethylbenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	6000
Hexachloro-1,3-butadiene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
2-Hexanone	<10.2	<8.6	<9.3	<10.5	<8.6	<12.6	<13.1	<14.9	<11.3	--
Isopropylbenzene (Cumene)	18.3	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
p-Isopropyltoluene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Methylene chloride	<10.2	<8.6	<9.3	<10.5	<8.6	<12.6	<13.1	<14.9	<11.3	20
4-Methyl-2-pentanone (MIBK)	<10.2	<8.6	<9.3	<10.5	<8.6	<12.6	<13.1	<14.9	<11.3	--
Methyl-tert-butyl ether	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
n-Propylbenzene 141	38.5	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Styrene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,1,1,2-Tetrachloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,1,2,2-Tetrachloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Tetrachloroethene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	50
Toluene	112	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	7000
1,2,3-Trichlorobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2,4-Trichlorobenzene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,1,1-Trichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	2000
1,1,2-Trichloroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Trichloroethene	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	30
Trichlorofluoromethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,2,3-Trichloropropane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,1,2-Trichlorotrifluoroethane	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Vinyl chloride	<3.1	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Xylene (Total)	102	<7.7	<8.4	<9.5	<7.7	<11.4	<11.8	<13.4	<10.3	9000
m&p-Xylene	<6.1	<5.1	<5.6	<6.3	<5.1	<7.6	<7.8	9.1	<6.8	--
o-Xylene	102	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
Naphthalene	11.7	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	5000
1,2,4-Trimethylbenzene	149	2.7	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--
1,3,5-Trimethylbenzene	57.8	<2.6	<2.8	<3.2	<2.6	<3.8	<3.9	<4.5	<3.4	--

Please see notes at end of table.

Table 2
Soil Analytical Results: VOCs
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

Sample Number: Depth: Sample Date:	B-1 12.5 5/6/2015	B-2 12.5 5/6/2015	Soil, Method A, Unrestricted Land Use, Table Value
VOCs (µg/kg)			
Acetone	--	--	--
tert-Butylmethyl ether	--	--	--
Benzene	<19.3	<18.8	30
Bromobenzene	--	--	--
Bromochloromethane	--	--	--
Bromodichloromethane	--	--	--
Bromoform	--	--	--
Bromomethane	--	--	--
2-Butanone	--	--	--
n-Butylbenzene	--	--	--
sec-Butylbenzene	--	--	--
tert-Butylbenzene	--	--	--
Carbon disulfide	--	--	--
Carbon tetrachloride	--	--	--
Chlorobenzene	--	--	--
Chloroethane	--	--	--
Chloroform	--	--	--
Chloromethane	--	--	--
2-Chlorotoluene	--	--	--
4-Chlorotoluene	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--
Dibromochloromethane	--	--	--
1,2-Dibromoethane (EDB)	<38.6	<37.5	5
Dibromomethane	--	--	--
1,2-Dichlorobenzene	--	--	--
1,3-Dichlorobenzene	--	--	--
1,4-Dichlorobenzene	--	--	--
Dichlorodifluoromethane	--	--	--
1,1-Dichloroethane	--	--	--
1,2-Dichloroethane	<38.6	<37.5	--
1,2-Dichloroethene (Total)	--	--	--
1,1-Dichloroethene	--	--	--
cis-1,2-Dichloroethene	--	--	--
trans-1,2-Dichloroethene	--	--	--
1,2-Dichloropropane	--	--	--
1,3-Dichloropropane	--	--	--
2,2-Dichloropropane	--	--	--
1,1-Dichloropropene	--	--	--
cis-1,3-Dichloropropene	--	--	--
trans-1,3-Dichloropropene	--	--	--
Ethylbenzene	<38.6	<37.5	6000
Hexachloro-1,3-butadiene	--	--	--
2-Hexanone	--	--	--
Isopropylbenzene (Cumene)	<77.3	<75.1	--
p-Isopropyltoluene	--	--	--
Methylene chloride	--	--	20
4-Methyl-2-pentanone (MIBK)	--	--	--
Methyl-tert-butyl ether	<77.3	<75.1	100
n-Propylbenzene 141	<38.6	<37.5	--
Styrene	--	--	--
1,1,1,2-Tetrachloroethane	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--
Tetrachloroethene	--	--	50
Toluene	<77.3	<75.1	7000
1,2,3-Trichlorobenzene	--	--	--
1,2,4-Trichlorobenzene	--	--	--
1,1,1-Trichloroethane	--	--	2000
1,1,2-Trichloroethane	--	--	--
Trichloroethene	--	--	30
Trichlorofluoromethane	--	--	--
1,2,3-Trichloropropane	--	--	--
1,1,2-Trichlorotrifluoroethane	--	--	--
Vinyl chloride	--	--	--
Xylene (Total)	<116	<113	9000
m&p-Xylene	--	--	--
o-Xylene	--	--	--
Naphthalene	<155	<150	5000
1,2,4-Trimethylbenzene	<77.3	<75.1	--
1,3,5-Trimethylbenzene	<77.3	<75.1	--

Notes:

- VOCs = Volatile organic compounds by EPA Method 8260B
- µg/kg = Micrograms per kilogram (parts per billion (ppb)).
- < = Not detected above the indicated method reporting limit (MRL)
- Bold** indicates detected concentration of listed analyte
- Shading indicates detected concentration exceeding at least one screening value
- = Not analyzed or cleanup level not established
- ~~Childproof~~ indicates soil sample removed by excavation.

Table 3
Direct Push: Groundwater Analytical Results
Tarr, LLC Cardlock Facility
Vancouver, Washington

Sample Number: Sample Date:	SB-5 4/25/2012	SB-12 4/29/2011	SB-13 4/28/2011	SB-14 4/29/2011	SB-15 4/29/2011	SB-16-W 5/29/2012	SB-17-W 5/29/2012	SB-18-W 5/29/2012	SB-19-W 5/29/2012	Washington MICA Groundwater Method A, Table Value
Petroleum Hydrocarbons (µg/L)										
TPH-Diesel Range	96	<75	97	<76	140	--	--	--	--	500
TPH-Oil Range	<380	<380	<380	<380	<380	--	--	--	--	500
TPH-Gasoline Range	<50	<50	<50	<50	473	266	3,090	8,760	<50.0	800
VOCs (µg/L)										
1,1,1,2-Tetrachloroethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,1,1-Trichloroethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	200
1,1,2,2-Tetrachloroethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,1,2-Trichloroethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,1,2-Trichlorotrifluoroethane	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,1-Dichloroethene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,1-Dichloropropene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,2,3-Trichlorobenzene	--	--	<1.0	--	<1.0	<1.0	2.2	2.2	<1.0	--
1,2,3-Trichloropropane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,2,4-Trichlorobenzene	--	--	<1.0	--	<1.0	<1.0	2.1	2.1	<1.0	--
1,2,4-Trimethylbenzene	--	--	<1.0	--	<1.0	25.9	262	294	<1.0	--
1,2-Dibromo-3-chloropropane	--	--	<4.0	--	<4.0	<5.0	<5.0	<5.1	<5.2	--
1,2-Dibromoethane (EDB)	0.047	--	<1.0	--	<1.0	<1.0	<1.0	8.2	<1.0	0.01
1,2-Dichlorobenzene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,2-Dichloroethane	<1.0	--	<1.0	--	<1.0	<1.0	<1.0	153	<1.0	5
1,2-Dichloroethene (Total)	--	--	<2.0	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
1,2-Dichloropropane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,3,5-Trimethylbenzene	--	--	<1.0	--	4.1	<1.0	4.3	70.0	<1.0	--
1,3-Dichlorobenzene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,3-Dichloropropane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
1,4-Dichlorobenzene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
2,2-Dichloropropane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
2-Butanone (MEK)	--	--	<5.0	--	<5.0	<5.0	29.9	<5.0	<5.0	--
2-Chlorotoluene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
2-Hexanone	--	--	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	--
4-Chlorotoluene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
4-Methyl-2-pentanone (MIBK)	--	--	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	--
Acetone	--	--	<5.0	--	<5.0	10.9	27.3	<5.0	<5.0	--
Benzene	<1.0	--	<1.0	--	1.1	43.0	727	1,520	1.2	5
Bromobenzene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Bromochloromethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Bromodichloromethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Bromofrom	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Bromomethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Carbon Disulfide	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Carbon tetrachloride	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Chlorobenzene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Chloroethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Chloroform	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Chloromethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Dibromochloromethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Dibromomethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Dichlorofluoromethane	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Diethyl Ether	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	<1.0	--	<1.0	--	2.8	8.2	151	277	<1.0	700
Hexachloro-1,3-butadiene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Isopropylbenzene (Cumene)	--	--	<1.0	--	3.4	<1.0	<1.0	18.5	<1.0	--
Methyl-tert-butyl ether	1.3	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Methylene chloride	--	--	<4.0	--	<4.0	<5.0	<5.0	<5.0	<5.0	5
Naphthalene	--	--	<1.0	--	<1.0	4.2	<1.0	60.5	3.9	160
Styrene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Tetrachloroethene (PCE)	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	5
Tetrahydrofuran	--	--	--	--	--	--	--	--	--	--
Toluene	<1.0	--	<1.0	--	<1.0	1.1	24.2	604	<1.0	1,000
Trichloroethene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	5
Trichlorofluoromethane	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Vinyl chloride	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	0.2
Xylene (Total)	<3.0	--	<3.0	--	<3.0	21.1	302	1030	<3.0	1,000
cis-1,2-Dichloroethene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
cis-1,3-Dichloropropene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
m&p-Xylene	--	--	<2.0	--	<2.0	19.6	288	746	<2.0	--
n-Butylbenzene	--	--	<1.0	--	<1.0	<1.0	1.2	7.0	<1.0	--
n-Propylbenzene	--	--	<1.0	--	9.5	1.2	11.5	36.9	<1.0	--
o-Xylene	--	--	<1.0	--	<1.0	1.5	17.5	285	<1.0	--
p-Isopropyltoluene	--	--	<1.0	--	<1.0	<1.0	<1.0	1.4	<1.0	--
sec-Butylbenzene	--	--	<1.0	--	2.6	<1.0	2.1	2.5	<1.0	--
tert-Butylbenzene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
trans-1,2-Dichloroethene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
trans-1,3-Dichloropropene	--	--	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--
Metals (µg/L)										
Lead, Dissolved	<10.0	--	--	--	--	--	--	--	--	15

Notes:

1. VOCs = Volatile organic compounds by EPA Method 8260B.
2. < = Not detected above the indicated method reporting limit (MRL).
3. µg/L = Micrograms per liter (parts per billion [ppb]).
4. **Bold** indicates detected concentration of listed analyte.
5. Shading indicates detected concentration exceeding at least one screening value.
6. M1 = Matrix spike recovery exceeded QC limits.
7. * = Analyzed by EPA Method 8011. Result from Method 8260B not reported.

Table 5
Soil Vapor Analytical Results
Tarr Vancouver Cardlock Remediation
Vancouver, Washington

COMPOUND NAME	VP-1	Washington MTCA	
	9/11/2012	Method B Soil Gas Screening Levels	
		C	NC
	(ug/m ³)		
trans-1,2-Dichloroethene	<0.60	--	320
Methyl tert-butyl ether	<0.55	96	14,000
Freon 12	2.6	--	--
Freon 114	<1.1	--	--
Chloromethane	<0.31	14	--
1,3-Butadiene	<0.34	0.8	9.1
Bromomethane	<0.59	--	23
Chloroethane	<2.0	--	--
Freon 11	1.1	--	--
Ethanol	3.2	--	--
Freon 113	<1.2	--	--
Acetone	7.6	--	--
2-Propanol	<1.9	--	--
Carbon Disulfide	<2.4	--	3,200
3-Chloropropene	<2.4	--	--
Methylene Chloride	<1.0	53	14,000
Hexane	1.1	--	3,200
2-Butanone (Methyl Ethyl Ketone)	<2.2	--	4,600
Tetrahydrofuran	<2.2	--	--
Chloroform	2.0	1.1	--
Cyclohexane	<0.52	--	--
Carbon Tetrachloride	<0.96	1.7	--
2,2,4-Trimethylpentane	10	--	--
Heptane	0.76	--	--
1,2-Dichloropropane	<0.70	--	18
1,4-Dioxane	0.69	--	--
Bromodichloromethane	<1.0	0.033	--
cis-1,3-Dichloropropene	<0.69	--	--
4-Methyl-2-pentanone	<0.62	--	--
trans-1,3-Dichloropropene	<0.69	--	--
2-Hexanone	<3.1	--	--
Dibromochloromethane	<1.3	0.045	--
1,2-Dibromoethane (EDB)	<1.2	--	--
Chlorobenzene	<0.70	--	60
Styrene	<0.65	44	4,600
Bromoform	<1.6	23	--
Cumene	<0.75	--	1,800
Propylbenzene	<0.75	--	--
4-Ethyltoluene	<0.75	--	--
1,3,5-Trimethylbenzene	<0.75	--	27
1,2,4-Trimethylbenzene	<0.75	--	27
1,3-Dichlorobenzene	<0.91	--	--
1,4-Dichlorobenzene	<0.91	--	3,700
alpha-Chlorotoluene	<0.79	--	--
1,2-Dichlorobenzene	<0.91	--	640
1,2,4-Trichlorobenzene	<5.6	--	910
Hexachlorobutadiene	<8.1	1.1	--
TPH ref. to Gasoline (MW=100)	170	--	--
Vinyl Chloride	0.21	2.8	460
1,1-Dichloroethene	<0.060	--	910
1,1-Dichloroethane	<0.12	--	3,200
cis-1,2-Dichloroethene	<0.12	--	160
1,1,1-Trichloroethane	<0.16	--	48,000
Benzene	0.61	3.2	140
1,2-Dichloroethane	0.60	0.96	22
Trichloroethene	<0.16	1	160
Toluene	0.95	--	22,000
1,1,2-Trichloroethane	<0.16	1.6	--
Tetrachloroethene	<0.21	4.2	160
Ethyl Benzene	0.32	--	4,600
m,p-Xylene	1.4	--	460
o-Xylene	0.54	--	460
1,1,2,2-Tetrachloroethane	<0.21	3.4	--

Notes:

1. ug/m³ = micrograms per cubic meter
2. Highlighting denotes a concentration above one of the Ecology MTCA soil gas screening levels for soil located just below buildings (Table B-1, Ecology, 2009)
3. Samples analyzed with EPA Method TO-15.
4. < = Not detected above the indicated method reporting limit (MRL).
5. "C" refers to the substance's toxicity as a carcinogen, "NC" refers to its toxicity as a non-carcinogen

Date: May 23, 2018

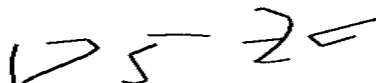
Dept of Ecology:

The following is in response to your May 23, 2018 request for delivery information on your Certified Mail™ item number 9171999991703774718866. The delivery record shows that this item was delivered on February 5, 2018 at 9:37 am in PORTLAND, OR 97212. The scanned image of the recipient information is provided below.

Signature of Recipient :



Address of Recipient :



Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,

United States Postal Service