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DEPARTMENT OF ECOLOGY
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August 31, 2017

Mr. Edward Clement
CenturyLink
600 New Century Parkway
New Century, KS 66031

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

- **Name:** Cascade Autovon Company
- **Address:** 12727 412th Ave SE, North Bend, WA 98045
- **Facility/Site No.:** 36296841
- **VCP No.:** NW3098
- **Cleanup Site ID No.:** 8879

Dear Mr. Clement:

Thank you for submitting documents regarding your remedial actions for the Cascade Autovon Company facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site:

- Diesel-range petroleum hydrocarbons (TPHd) in Soil;
- TPHd in Ground Water.

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial actions:

1. B&C Equipment Co., *Environmental Site Assessment*, November 12, 1991.

2. B&C Equipment Co., *Pumping and Treatment of UST Tank Excavation Water*, February 28, 1992.

3. B&C Equipment Co., *Monitoring Well Quarterly Sampling Event*, April 16, 1992.

4. B&C Equipment Co., *Monitoring Well 2nd Quarterly Sampling Event*, June 25, 1992.

5. Ecology Technology, Inc. *Letter for Bioremediation Process*, September 29, 1992.

6. B&C Equipment Co., *Monitoring Well 3rd Quarterly Sampling Event*, September 29, 1992.

7. B&C Equipment Co., *Monitoring Well 4th Quarterly Sampling Event*, January 25, 1993.

8. Roy Jensen & Associates, *Groundwater Sampling and Analytical Results,* March 14, 1994.

9. Roy Jensen & Associates, *Groundwater Sampling and Analytical Results,* April 24, 1995.

10. Environmental Partners, Inc., *UST Site Assessment Report*, February 19, 2007.

11. Geosyntec Consultants, *Remedial Investigation Report*, Report Version 1, September 30, 2016.

12. Geosyntec Consultants, *Remedial Investigation Report*, Report Version 2, June 9, 2017.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at 425-649-7235 or sending an email to: nwro_public_request@ecy.wa.gov

The Site is defined by the extent of contamination caused by the following releases:

- TPHd in Soil;
- TPHd in Ground Water.

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site, Ecology has determined:**

- For Ecology to issue a Site No Further Action (NFA) determination, a complete Site characterization is needed. The following comments are related to additional Site characterization:

    - During 1991, following the diesel underground storage tank (UST) removal and associated soil excavation, soils containing TPHd concentrations above the MTCA Method A soil cleanup level remained at the northeast and southwest sidewalls of the excavation between 10 and 11 feet below ground surface (bgs). A southeast sidewall sample was not collected. Therefore, the southwest and east boundaries of the soil contamination were not fully defined at the time. During a Site investigation in 2016, soil samples were collected at the northeast, north, and northwest corner of the 1991 excavation which confirmed residual contaminated soils at the northern portion of the excavation have likely been remediated below the MTCA Method A soil cleanup levels. Additional soil sampling of native materials is required southwest, southeast, and east of the 1991 excavation to confirm current soil conditions in these areas.

    - The ground water flow direction varied from northwesterly to northeasterly and easterly based on available ground water elevation data collected in 1992. TPHd-contaminated ground water detected in the 1991 excavation might have migrated to downgradient directions from northwest to east. Ground water monitoring between 1992 and 1995 in three monitoring wells and in 2016 in temporary wells confirmed ground water to the north, northeast, northwest, and southwest of the 1991 excavation is most likely in compliance. Additional ground water evaluation is required to the southeast and east of the 1991 excavation.

Depending on the confirmation ground water sampling data, further evaluation of the ground water flow direction may be required.

- The Terrestrial Ecological Evaluation (TEE) form needs to be revised. The conditional point of compliance exclusion provided on the TEE Form submitted to Ecology is not applicable at this Site. This exclusion is applicable for sites with institutional controls such as an Environmental Covenant as required by WAC 173-341-440. The presence of a fence around the perimeter of the Site is not an appropriate institutional control. A simplified TEE appears to be required for the Site. It is possible that cleanup levels would need to be revised based on the completion of the TEE.

- Three ground water monitoring wells MW-1 through MW-3 were installed in 1992 on the northwestern portion of the Property. These wells have not been sampled since 1995 and could not be located during the 2016 Site investigation. Additional work is required to locate and decommission the three monitoring wells according to WAC 173-160-460. Please contact Noel Philip at 425-649-7044 or noel.philip@ecy.wa.gov for questions regarding locating and decommissioning the monitoring wells.

- Additional figures should be provided that are produced in a readable manner and to scale with the following information:

  - All historic soil and ground water sampling locations, sample depths and concentrations for each petroleum range or detection limit if not detected (color coding can be used to indicate contaminant concentrations that are above cleanup levels).

  - Site boundary, Property boundary, locations of the two generations of UST excavations, confirmation soil sampling locations and analytical results, former and current Site facilities, historic extent of contamination in soil and ground water.

  - Cross-section(s) with the Site geologic and hydrogeologic information, excavation limits, soil borings and ground water monitoring well locations, soil and ground water sampling locations, depths, and analytical results.

- This Site is currently listed in Ecology's Hazardous Sites List (HSL) with a Washington Ranking Method hazard ranking of 3 (Moderate Risk). In order to remove the Site from the HSL, the final decision and NFA determination for the Site needs to go through a 30-day public notice and comment period. Ecology

will prepare a Fact Sheet, notify the Site community of document availability and conduct the comment period as part of MTCA Requirement 173-340-330-(7)(10). Once all comments received during the 30-day period are properly addressed, a Site NFA determination can be issued and the Site will be removed from the HSL.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at 425-649-7109 or jing.song@ecy.wa.gov.

Sincerely,

Jing Song
Site Manager

Enclosure (1): A – Description and Diagrams of the Site

cc: David Parkinson, Geosyntec Consultants
Sonia Fernandez, VCP Coordinator, Ecology

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 is defined by TPHd release in soil and ground water. The Site consists of a King County parcel number 092308-9060, which covers 1.70 acres of rectangular-shaped land with the street address of 12727 412th Avenue SE in North Bend, Washington (Property).

Area and Property Description: The Property is located within a mixed commercial/residential area. The Property is bounded to the north by a church and a vacant lot with a Safeway grocery store beyond, to the east by 412th Avenue SE with single family residential houses beyond, to the south by a telecommunication switching facility and single family residential houses beyond, and to the west by Interstate 90 (I-90) with single family residential houses beyond. Current Property developments include a 10,000-square foot structural steel building located on the central portion of the Property. The southern portion of the Property is mostly paved with asphalt, while the northern portion is covered with grass and brush vegetation (Figure 1).

Site History and Current Use: Based on historical aerial photographs, the Property was undeveloped until the 1960s prior to construction of the building in 1968. Cascade Autovon has occupied the Property since that time, and developed the Property as a telecommunications facility. CenturyLink acquired the Property in 1997 and continued to operate the Property as a telecommunications facility until 2012.

As part of the regulatory requirements for telecommunications systems, emergency power to be supplied for specific durations was required. In order to meet these requirements, the Property had USTs installed in the northwestern portion which stored diesel fuel for emergency power generators. A first generation UST system included two 10,000-gallon diesel USTs, which were installed northwest of the building in 1973 and removed in June 1991. A second generation UST system included one 5,000-gallon diesel UST installed in the same excavation in January 1992, which was removed in January 2007. No USTs are currently on Site. The Property has not been used and the building unoccupied since 2012.

Sources of Contamination: Diesel range petroleum hydrocarbon releases to soil and ground water were discovered in 1991 during the removal of the two 10,000-gallon diesel USTs. The exact timing of the release occurrence is unknown.

Physiographic Setting: The Site is situated at an elevation of approximately 450 feet above mean sea level. The land surface in the vicinity of the Site is relatively flat with a gentle slope to the northeast towards the South Fork Snoqualmie River.

Surface Water System and Utilities: Nearby surface water bodies include Ribery Creek located approximately 900 feet northwest of the Site and South Fork Snoqualmie River located

approximately 960 feet east of the Site. Storm water from the Property and adjoining properties flows to City of North Bend municipal storm drains.

Ecological Setting: The land surface of the Site and nearby properties is primarily covered by trees, low brushes, and grass or developed with commercial buildings or single family houses. Associated surface cover of properties further north is comprised of concrete building foundations and asphalt parking areas.

Geology: The Site is located on the Snoqualmie River flood plain and the surficial geology in this area consists of alluvial deposits. Soil borings and monitoring wells advanced on Site indicate the Site is underlain by silty sand to approximately 7 to 8 feet bgs, followed by pebbles and cobbles mixed with silty sand to the total explored depth of 20 feet bgs.

Ground Water: Three monitoring wells MW-1 through MW-3 were installed on the Site in February 1992. Between 1992 and 1995, depth to water measurements in the wells ranged from approximately 6.8 to 17.4 feet bgs and varied seasonally. Available ground water elevation data in 1992 indicated Site ground water flow direction varied from northwesterly to northeasterly and easterly. The variation in ground water flow direction may be due to the floodplain setting of the Site and the proximity of the South Fork Snoqualmie River. The three monitoring wells have not been sampled since 1995 and could not be located with a metal detector during the Site investigation in 2016. Additional work is required to locate the three monitoring wells using other surface geophysical locating methods such as magnetometry, electrical resistance or ground penetrating radar. After being located, the monitoring wells should be decommissioned properly according to the requirements provided in WAC 173-160-460.

Water Supply: Drinking water for the Property is supplied by City of North Bend. The nearest drinking water well is located approximately 1,250 feet southeast of the Site with a total depth of 43 feet bgs and a static water level of approximately 8 feet bgs during the time of drilling.

Release and Extent of Contamination: Petroleum hydrocarbon releases to soil and ground water were discovered during the removal of two adjacent 10,000-gallon diesel USTs from the Site in June 1991. Six soil samples were collected from the initial excavation immediately after the UST removal; three of them were collected from the north and south sidewalls at approximately 9 feet bgs; the other three samples were collected from the bottom of the excavation at approximately 11 feet bgs.

Total petroleum hydrocarbons (TPH) were detected at concentrations as high as 12,000 milligrams per kilogram (mg/kg) at the bottom of the UST excavation. Approximately 350 cubic yards of petroleum hydrocarbon-impacted soils were subsequently excavated and stockpiled on the Site. Seven additional soil samples were collected from the final excavation limits; five of them were collected from north, south, northeast, northwest, and southwest sidewalls at 10.5 feet bgs and the other two were collected from north and south bottom of the excavation at 13.5 and 12 feet bgs, respectively. The northeast and southwest sidewall samples contained TPHd concentrations at 2,900 mg/kg and 2,000 mg/kg, respectively, above or equal to the MTCA Method A soil cleanup level. The northwest sidewall sample contained a TPHd concentration at

550 mg/kg, which is above the soil cleanup level at that time, but below the current MTCA Method A soil cleanup level. The northeast sidewall sample additionally contained total gasoline-range petroleum hydrocarbons (TPHg) at a concentration of 100 mg/kg, equal to the MTCA Method A soil cleanup level when benzene is not present. Additional excavation was not conducted due to the facility's main transformer on the western portion of the Property and the foundation of a fenced security area along the east sidewall of the excavation. Also, a southeast sidewall sample was not collected due to the fenced security area foundation. Therefore, petroleum hydrocarbon-impacted soils remained at the northeast and southwest sidewalls of the excavation, and may have extended to the east/southeast and southwest. The southwest and east boundaries of the soil contamination were not fully determined. The excavated soil stockpile was processed with enhanced bioremediation by the addition of bionutrients, EnviroMech Gold, and soil conditioners between March and September 1992. Soil samples were collected in May, June, and September 1992 from the treated stockpile, and final soil analytical results indicated the stockpiled soils had been remediated below the MTCA Method A cleanup levels.

Ground water was encountered at approximately 10.5 feet bgs in the excavation in 1991. A water sample was collected from the recharging water in the excavation, which contained a TPHd concentration of 8,500 micrograms per liter (µg/L), above the MTCA Method A ground water cleanup level. Approximately 10,000 gallons of recharging water was pumped into a 20,000-gallon Baker tank on the Site, and later treated using a carbon absorption treatment system and then released into a nearby drainage ditch in a northward direction toward a nearby vacant field. Hydrocarbon breakthrough was continuously monitored and one water sample collected from the discharge end of the treatment system did not contain concentrations of TPH and benzene, toluene, ethylbenzene and xylenes (BTEX) above laboratory detection limits. During the installation of a new 5,000-gallon diesel UST in January 1992, pumping water into the Baker tank was determined not feasible due to the large volume of water in the excavation and relatively fast recharging rate. A separate filter system was installed in the excavation using a drum filled with pea gravel, which pumped water to a depression located at the north end of the Site. Discharge water was continuously monitored for visual evidence of contamination (i.e. sheen) during the pumping activities. The soil and ground water sampling locations in the final excavation in 1991 are depicted on Figure 2 of the Site Diagrams.

Three monitoring wells MW-1 through MW-3 were installed on the Site in February 1992 to a total depth of 25 feet bgs with screened intervals between 5 and 25 feet bgs. Ground water samples were collected from the three monitoring wells in March, June, September, and December 1992, November 1993, February 1994, and March 1995. Water samples were analyzed for TPH by EPA Method 8015 Modified, TPHg, and BTEX. No concentrations were detected above laboratory reporting limits with the exception of TPHg (27 µg/L) and xylenes (1 µg/L) in MW-1 in December 1992, and toluene (14 µg/L) in MW-2 in March 1995, which were all below the MTCA Method A ground water cleanup levels. The monitoring well locations are depicted on Figure 2 in the Site Diagrams. Because monitoring well MW-2 and MW-3 are located near the north end of the Site, the ground water monitoring data confirmed the ground water at the north end of the Site is in compliance following the discharge of excavation water into this area in January 1992.

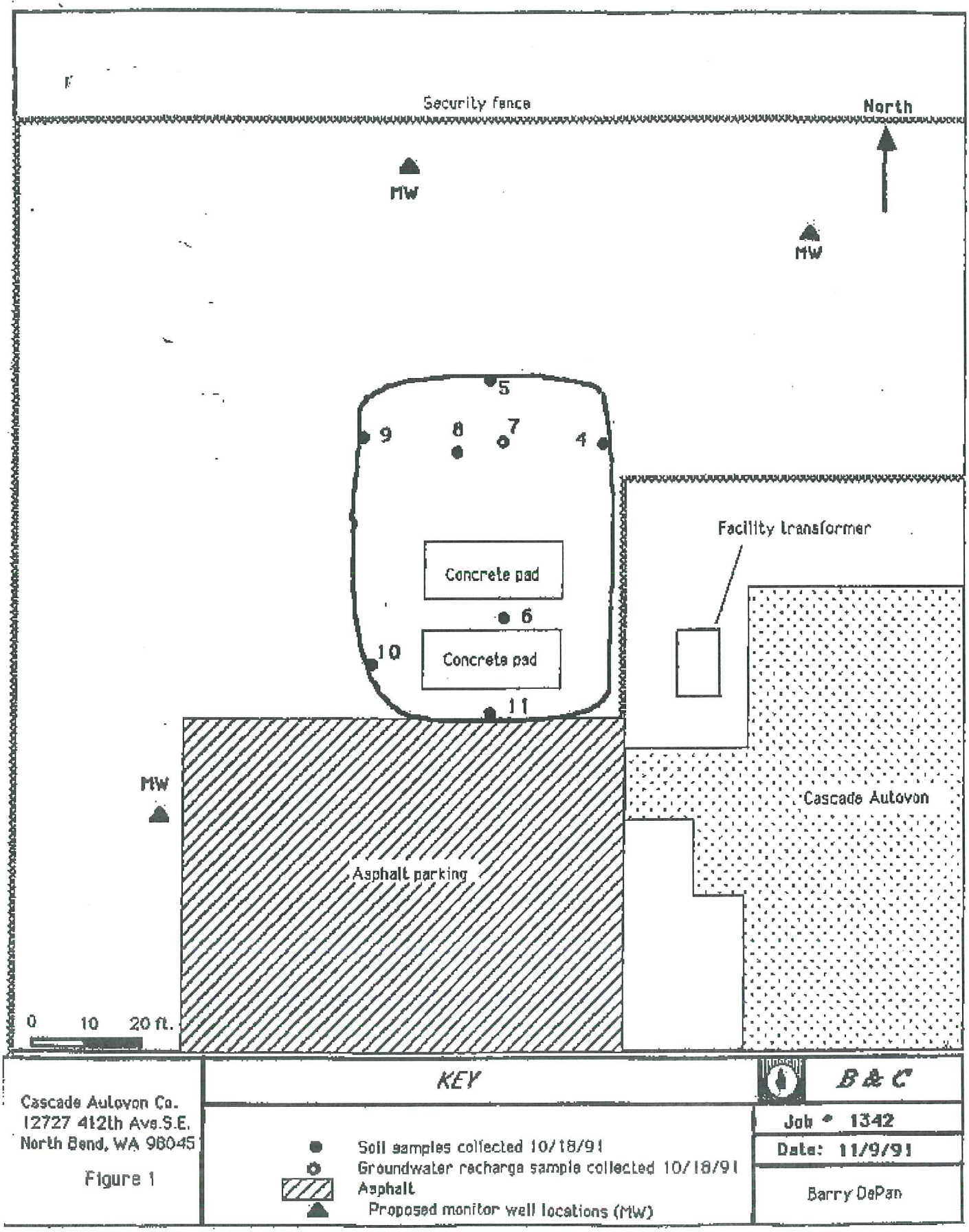
In January 2007, the 5,000-gallon diesel UST was removed and three soil samples were collected from the sidewalls of the excavation at 3 to 4 feet bgs. Two additional soil samples were collected from beneath the elbows of the product piping at 1 to 2 feet bgs. No soil samples contained detectable concentrations of TPHd, total heavy oil-range petroleum hydrocarbons (TPHo), or BTEX. Ground water was encountered at approximately 7 feet bgs in the excavation. A ground water sample was collected from a tank observation well situated immediately east of the UST and within the boundary of the UST excavation. The water sample contained TPHd at a concentration of 69 µg/L which was below the MTCA Method A ground water cleanup level however Ecology does not recognize a grab water sample from an excavation as being representative of ground water.

In August 2016, three soil borings GB-1 through GB-3 were advanced to a total depth of 20 feet bgs on the north, northwest, and northeast corners of the 1991 excavation to investigate the current soil conditions. The soil boring locations are depicted on Figure 3 of the Site Diagrams. One soil sample was collected from each borehole at a depth between 12 and 14 feet bgs, just above the depth at which ground water was encountered, and the approximate depth that residual soil contamination was left in place. One ground water sample was also collected from each soil boring using a five-foot temporary well screen. All soil and ground water samples contained concentrations of TPHg, TPHd, TPHo, and BTEX below the MTCA Method A cleanup levels, indicating residual soil and ground water contamination northeast of the 1991 excavation has most likely degraded. However, soil and ground water contamination was also present at the southwest corner of the 1991 excavation, and may have extended downgradient to the southeast and east. Current soil and ground water conditions southwest, southeast, and east of the 1991 excavation have not been evaluated.

Site Diagrams

Enclosure A: Figure 1

Enclosure A: Figure 2



Enclosure A: Figure 3