



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 20, 2017

Mr. Han Kim
6410 128th Ave SW
Littlerock WA 98556

Re: No Further Action at the following Site:

- **Site Name:** Littlerock Grocery & Gas
- **Site Address:** 6410 128th Ave SW, Littlerock WA
- **Facility/Site No.:** 36199886
- **Cleanup Site No.:** 8875
- **VCP Project No.:** SW1569

Dear Mr. Kim:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Littlerock Grocery & Gas 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

Is further remedial action necessary to clean up contamination at the Site?

NO. 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 release:

- Petroleum and constituents into the groundwater.

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. *Preliminary Environmental Studies*, Geotech Consultants, November 1, 1990.
2. Letter to Mr. Del Morgan regarding Littlerock Grocery, from Harold's Petroleum Equipment, November 26, 1990.
3. Letter to Littlerock Grocery Store, from Harold's Petroleum Equipment, October 15, 1993.
4. *Phase II Environmental Site Assessment*, Associated Environmental Group, LLC, January 16, 2017.

These documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You may make an appointment by calling the SWRO resource contact at (360) 407-6365.

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 located at 6410 128th Avenue Southwest, in Littlerock, Thurston County, Washington (Figure 1). It is located on the northwest side of the 128th Avenue Southwest and Littlerock Road Southwest intersection. As listed on the Thurston county assessor's page, the Site is 1.25 acres and is located on parcel number 81800300300. The surrounding area is rural residential and commercial.

The Property currently operates as a Chevron branded gasoline retail business with a convenience store.

The underground storage tank (UST) system was installed in 1988 and is comprised of three 8,000-gallon tanks containing gasoline, product delivery piping, and one dispenser island with two pumps (Figure 2).

Soils found at the Site consist primarily of brown, medium dense, silty sand to the maximum depth explored of 15 feet below ground surface (bgs). Groundwater was encountered between 5 and 15 feet bgs during the most recent investigation. The groundwater flow direction was not determined, however, based on local topography, is inferred to flow west.

In 1990, an environmental assessment was conducted to evaluate the conditions of soil and groundwater. Two borings, B-1 and B-2, were advanced to a maximum depth of 14 feet bgs. No groundwater was found in boring B-1 at the total depth explored of 14 feet bgs. In boring B-2, groundwater was encountered at 8 feet bgs.

Soil samples were collected and analyzed for hydrocarbons using EPA Method 8015 modified for gasoline. The results for B1 were 3 milligrams per kilogram (mg/kg) gasoline. The result for B-2 were non-detect. The depths these samples were collected were not given.

A groundwater sample was collected from Well 1 (W-1 on Figure 3), one of two on-Site observation/monitoring wells installed in the UST nest (Figure 3). The depth to groundwater was not provided in the report. The sample was analyzed only for benzene, toluene, ethylbenzene, and total xylenes (BTEX), the results of which were above the Method A cleanup levels. Although a tank tightness test had been performed, with passing results, prior to this sampling, evidently the distribution piping was not tested, thus not eliminating it as a potential source of the groundwater contamination.

A letter to the owner, dated November 26, 1990, mentioned that a line leak test was performed. During inspection, evidence of minor contamination was found around the turbine location at the top of a tank (the tank number was not given). The submersible pump fitting at the top of the tank was resealed. The line test results showed no evidence of leakage. A soil sample from below the tank was collected using an auger. The results found a concentration of 2 mg/kg Total Petroleum Hydrocarbons (TPH). A figure showing the location of the sample was not provided.

The 1993 letter from Harold's Petroleum Equipment stated that a soil sample was collected at the northwest corner of the tank area and analyzed for WTPH-Hydrocarbon Identification (HCID).

The head space in the two observation wells was monitored with a photoionization detector and a combustible gas and oxygen meter. The results from these meters indicated less than 1 part per million of petroleum hydrocarbons. The results of the HCID samples were non-detect for gasoline, diesel, and oil.

A Site Hazard Assessment was completed at the Site in 2013. The assessment resulted in the Site being ranked a 3 using the Department of Ecology's *WARM Scoring Manual*, dated April, 1992.

A Phase II Environmental Assessment was conducted at the Site in December 2016 to determine if petroleum impacts to soil and groundwater were still present. Nine soil borings were advanced to a maximum depth of 15 feet bgs (Figure 4). Soil samples were collected based on field observations and photoionization detector readings. A total of 22 samples were collected for laboratory analysis of Total Petroleum Hydrocarbons-Gasoline (TPH-G) and BTEX. Additionally two samples were also analyzed for hexane, ethylene dibromide (EDB), ethylene dichloride (EDC), methyl tert-butyl ether (MTBE), and lead (Pb). All results were non-detect (Table 1).

Temporary well screens were installed in each boring and groundwater samples were collected. The samples were analyzed for TPH-G and BTEX. One sample was also analyzed for hexane, EDB, EDC, MTBE, and total Pb. All results were non-detect (Table 2). Although the observation wells were not sampled, groundwater samples collected around the UST nest did not have any detections above detection levels.

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.

a. Cleanup levels

MTCA Method A Cleanup Levels for unrestricted land use for soil and groundwater were used to characterize the Site.

The Method A cleanup levels are:

Soil:

TPH-G	30 mg/kg
Benzene	0.03 mg/kg
Toluene	7 mg/kg
Ethylbenzene	6 mg/kg
Total Xylenes	9 mg/kg

Groundwater:	
TPH-G	800 ug/l
Benzene	5 ug/l
Toluene	1000 ug/l
Ethylbenzene	700 ug/l
Total Xylenes	1000 ug/l
Pb	15 µg/l

b. Points of compliance

Standard points of compliance were used for the Site.

The Points of Compliance used were:

Soil -Direct Contact: For soil cleanup levels based on human exposure via direct contact, the point of compliance is: “...*throughout the Site from ground surface to 15 feet below the ground surface.*”

No contamination was found in soil thus this pathway did not need to be evaluated.

Soil- Leaching: For sites where soil cleanup levels are based on the protection of groundwater: “...*the point of compliance is throughout the Site*”

No contamination was found in soil thus this pathway did not need to be evaluated.

Groundwater: For groundwater, the standard point of compliance as established under WAC 173-340-720(8) is: “...*throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site.*”

No contamination was found in groundwater thus this pathway did not need to be evaluated.

Vapor: Ambient and Indoor Air throughout the site.

No contamination was found in soil or groundwater thus this pathway did not need to be evaluated.

3. Selection of cleanup action.

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

Natural degradation and attenuation was the remedy selected for the Site.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

Natural attenuation and degradation at the Site decreased contamination found in 1990 to levels below the current Method A cleanup levels for both soil and groundwater. This was confirmed by sampling of both these media in areas that any residual contamination was likely to be found. All results for both soil and groundwater were non-detect at detection levels appropriate for each constituent.

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from our lists of hazardous waste sites, including:

- Hazardous Sites List.
- Confirmed and Suspected Contaminated Sites List.

This process includes public notice and opportunity to comment. Based on the comments received, Ecology will either remove the Site from the applicable lists or withdraw this opinion.

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).

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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 (#SW1569).

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) 407-6263 or e-mail at Carol.Johnston@ecy.wa.gov.

Sincerely,



Carol A. Johnston
SWRO Toxics Cleanup Program

CAJ: kb

By Certified Mail: [91 7199 9991 7037 1758 8631]

Enclosures: A – Description and Diagrams of the Site
 Figure 1: Location Map
 Figure 2: Site Layout and 2016 Sampling Locations
 Figure 3: 1990 Sampling Locations
 Table 1: 2016 Soil Analytical Results
 Table 2: 2016 Groundwater Analytical Results

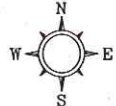
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cc: Mr. Scott Rose, Associated Environmental Group, LLC
Mr. Gerald Tousley, Thurston County Environmental Health
Mr. Nicholas Acklam, Ecology
Ms. Stacy Galleher, Ecology
Ms. Stephanie Bussell, Ecology (w/o attachments)

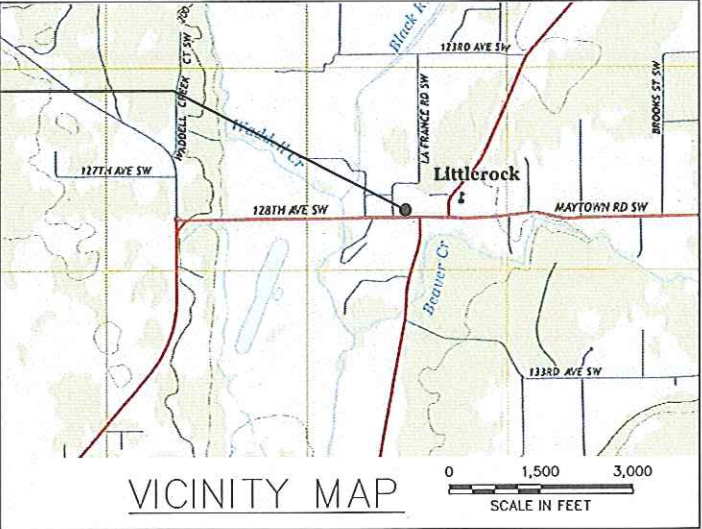
Enclosure A

Diagrams of the Site

FILENAME	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
16-212_1804.DWG	KCO	BD	BD	16-212
	12/13/2016	12/13/2016	12/13/2016	



PROJECT LOCATION

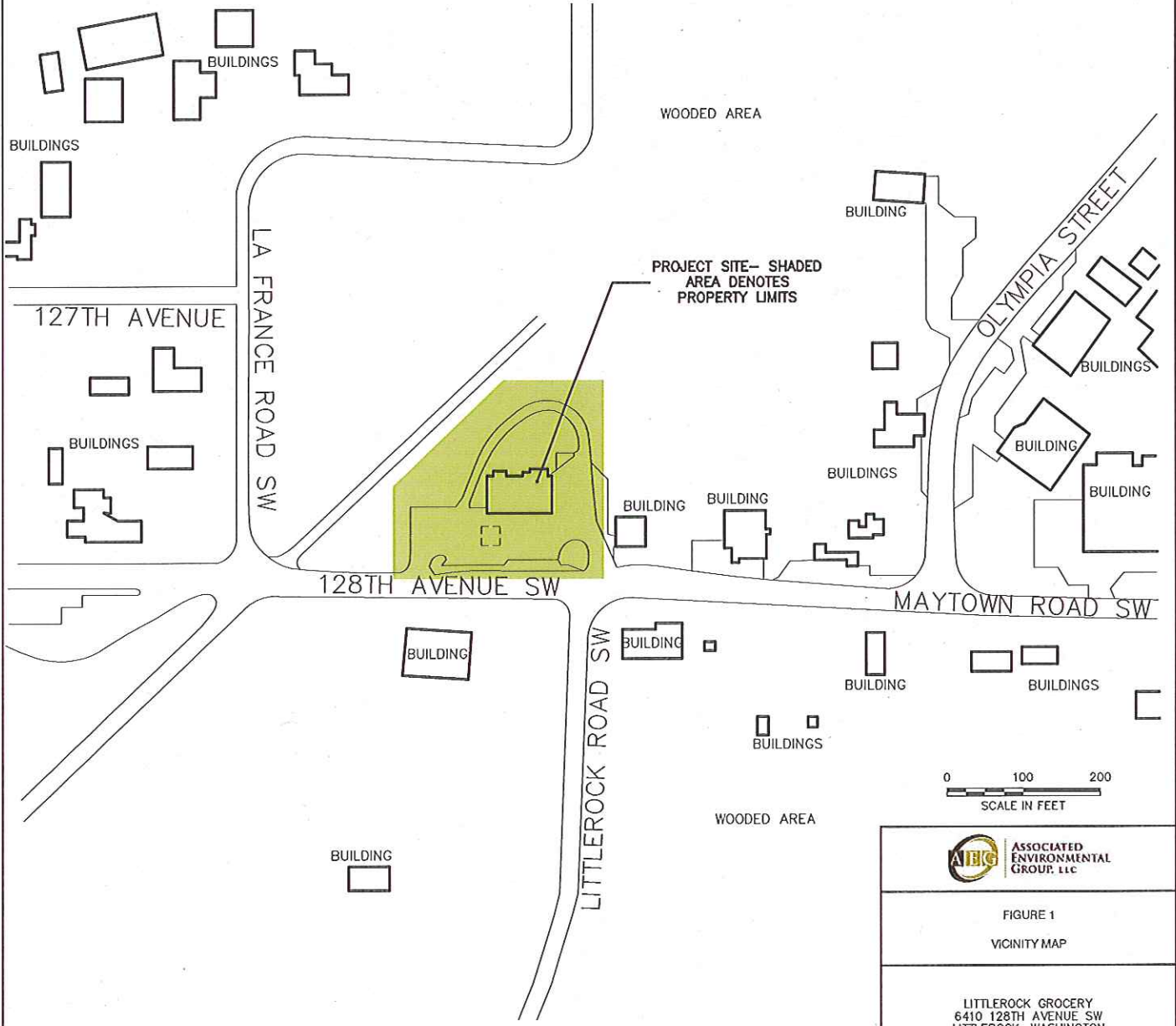


NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
VICINITY IMAGE SOURCE: U.S. GEOLOGICAL SURVEY-2013, 7.5 MINUTE QUADRANGLE MAP LITTLE ROCK, WASHINGTON



AIEG ASSOCIATED ENVIRONMENTAL GROUP, LLC

FIGURE 1
VICINITY MAP

LITTLE ROCK GROCERY
6410 128TH AVENUE SW
LITTLE ROCK, WASHINGTON

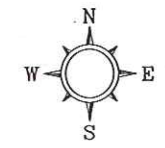
PROJECT NUMBER 16-212

APPROVED BY BD 12/13/2016

CHECKED BY BD 12/13/2016

DRAWN BY ICD 12/13/2016

FILENAME 16-212_1604.DWG



LEGEND

- B-1 ● SOIL BORING LOCATION
- ∅ POWER/UTILITY POLE
- UE - UE - UNDERGROUND ELECTRIC LINE
- G - G - GAS LINE

NOTES

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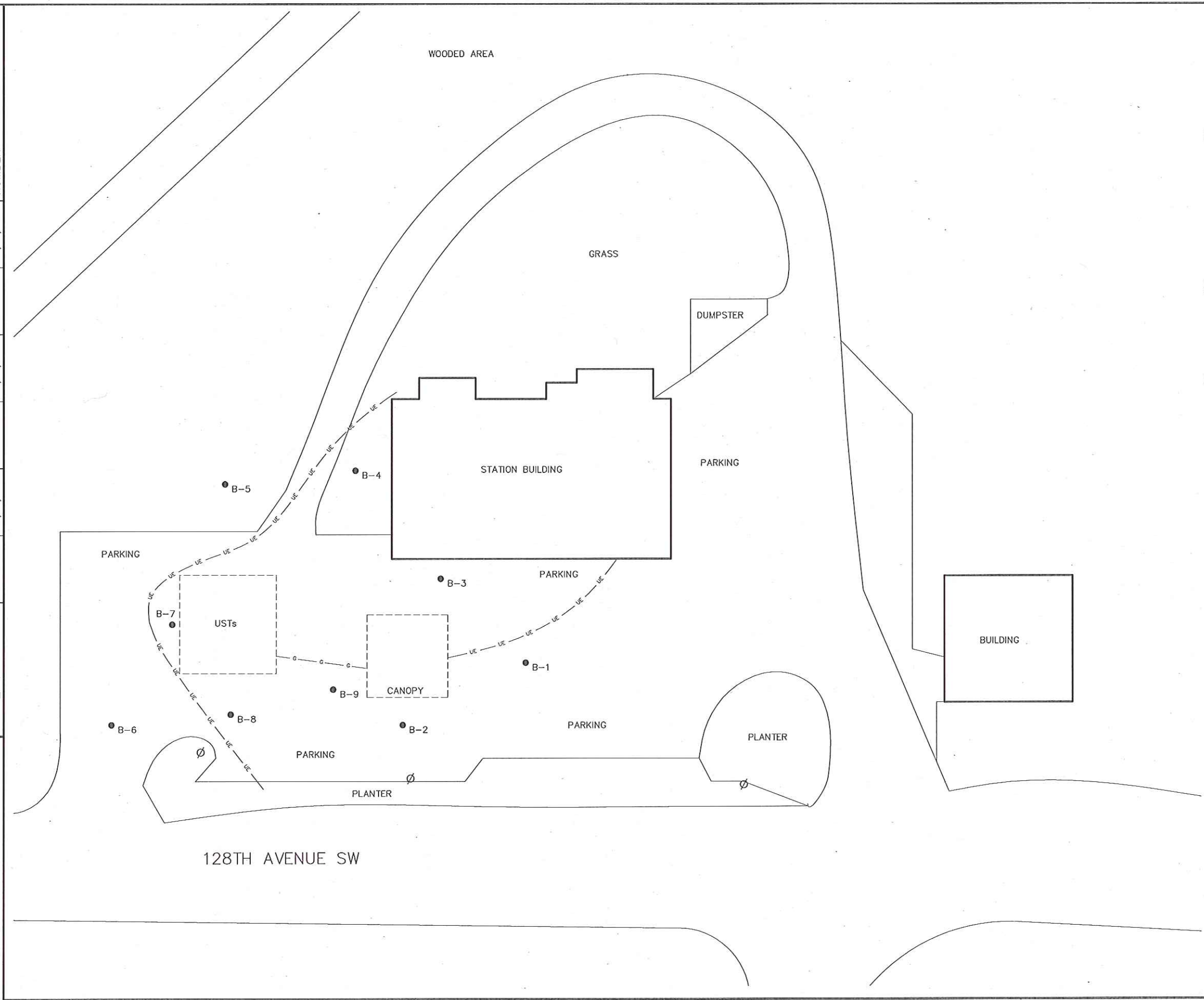
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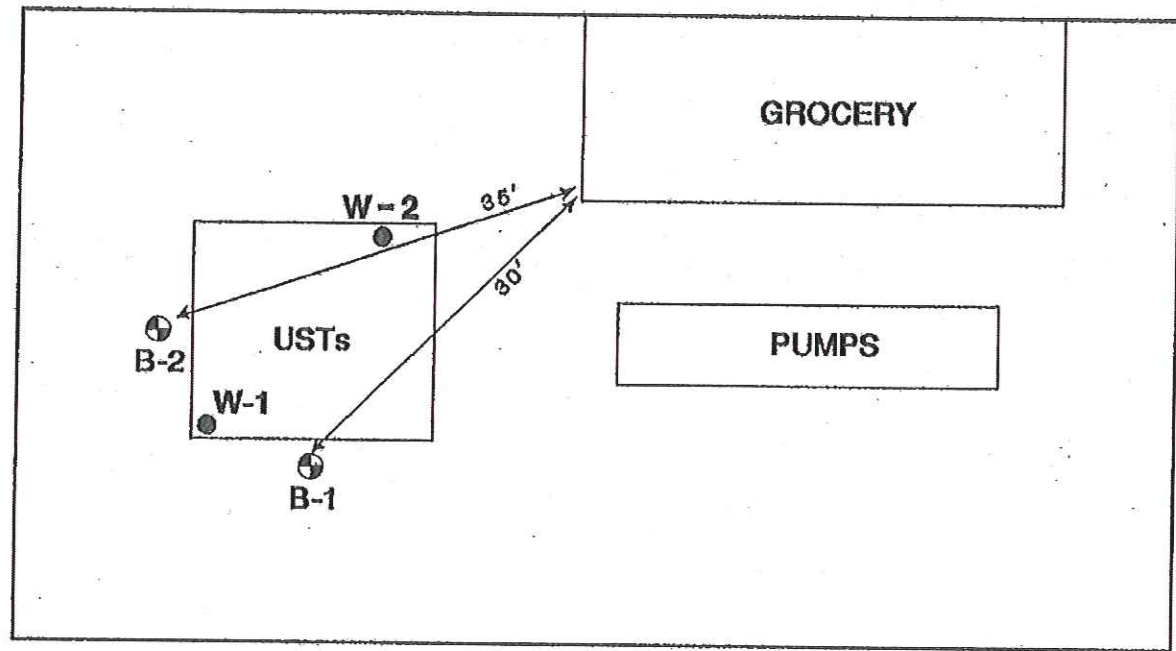
DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.



FIGURE 2
SITE MAP

LITTLEROCK GROCERY
6410 128TH AVENUE SW
LITTLEROCK, WASHINGTON





LITTLE ROCK ROAD

LEGEND:

- ⊕ B-1 APPROXIMATE BORING LOCATION
- W-1 APPROXIMATE WELL LOCATION



GEOTECH
CONSULTANTS, INC.

TEST BORING LOCATIONS

12420 LITTLE ROCK ROAD SOUTHWEST
OLYMPIA, WASHINGTON

Job No:
0292

Date:
OCT, 1990

Plate:
3

Table 1 - Summary of Soil Analytical Results
 Littlerock Grocery
 Littlerock, Washington

Sample Number	Depth Collected (feet)	Date Collected	Gasoline	Volatile Organic Compounds										Lead			
				Benzene	Toluene	Ethyl-benzene	Xylenes	Hexane	EDB	EDC	MTBE	Total Naphthalenes					
B1-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B1-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B2-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B2-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B3-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B3-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B4-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B4-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B5-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B5-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B6-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B6-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B7-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B7-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B8-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--
B8-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<5
B9-5	5.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<5
B9-10	10.0	12/8/2016	<10	<0.02	<0.05	<0.05	<0.15	<0.05	<0.005	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<5
PQL			10	0.02	0.05	7	6	9	0.05	0.005	0.05	0.05	0.05	0.05	0.02	5	250
MTCA Method A Cleanup Levels			100*	0.03				**	**	0.005	**	**	0.1	5			

Notes:

All values reported in milligrams per kilogram (mg/kg)

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Black Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* TPH-Gasoline Cleanup Level with no presence of Benzene anywhere at the Site

**No Method A cleanup level has been established for this constituent

EDB = Ethylene dibromide
 EDC = 1,2-Dichloroethane
 MTBE = Methyl tert-butyl ether

Table 2 - Summary of Groundwater Analytical Results
 Littlerock Grocery
 Littlerock, Washington

Sample Number	Date Collected	Gasoline	Volatile Organic Compounds										Total Lead	
			Benzene	Toluene	Ethylbenzene	Xylenes	Hexane	EDB	EDC	MTBE	Total Naphthalenes			
B-1	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-2	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-3	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-4	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-5	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-6	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-7	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-8	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--
B-9	12/8/2016	<100	<1.0	<1.0	<1.0	<3.0	<1.0	<0.005	<1.0	<1.0	<1.0	<1.0	<0.1	<2.0
PQL		100	1.0	1.0	1.0	3.0	1.0	0.005	1.0	1.0	1.0	1.0	0.1	2.0
MTCA Method A Cleanup Levels		1,000*	5.0	1,000	700	1,000	**	0.01	5	20	160	15		

Notes:

All values reported in micrograms per liter (ug/L)

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* TPH-Gasoline Cleanup Level with no presence of Benzene anywhere at the Site

**No Method A cleanup level has been established for this constituent

EDB = Ethylene dibromide

EDC = 1,2-Dichloroethane

MTBE = Methyl tert-butyl ether