State of Washington
POLLUTION LIABILITY INSURANCE AGENCY
300 Desmond Drive SE • PO Box 40930 • Olympia, Washington 98504-0930
(360) 407-0520 • (800) 822-3905 • FAX (360) 407-0509
www.plia.wa.gov

May 17, 2018

Ms. Christy McDonough
Lehigh Hanson
7554 185th Avenue NE, Suite 100
Redmond, WA 98052

Re: No Further Action at the Following Site:

- **Facility/Site Name:** Associated Sand & Gravel
- **Facility/Site Address:** 6300 Glenwood Ave, Everett, WA 98203
- **FSID No:** 79876387
- **PTAP Project No:** PNW135

Dear Ms. McDonough:

The Washington State Pollution Liability Insurance Agency (PLIA) received your request for an opinion on your independent cleanup of the Associated Sand & Gravel (Site) meeting the administrative and technical requirements of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW. This letter provides our opinion. We are providing this opinion under the authority of Chapter 70.149 RCW.

Issue Presented and Opinion

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

No. PLIA 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 located at 6300 Glenwood Avenue, Everett WA and comprises one Snohomish County tax parcel described below (Fig. 1). This opinion does not apply to any other release(s) that may affect the Properties (parcels). Any such releases, if known, are identified separately below.

1. Description of the Properties and Tax Parcels within the Site:

The Property includes the following tax parcel(s) in Snohomish County, affected by the Site and addressed by your cleanup (Figs. 1 and 2)

- Tax Parcel No. 28040100304300

2. Description of the Site:

The parcel makes up the Site and is defined by the nature and extent of contamination associated with the following release (Figs. 3-6, Tables 1 and 2):

- Total Petroleum Hydrocarbons in the Gasoline/Diesel/Oil range (TPH-g, TPH-d & TPH-o) and BTEX constituents impact into the soil/groundwater/air-vapor.

3. Identification of Other Sites that may affect the Property.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that this Property (single parcel) was affected by other sites.

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

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Contaminated Soil Cleanup at Former Heavy-Duty Shop, Leaking UST Site 9831, Everett, Washington. Prepared by SCS Engineers, February 5, 2014 for Mr. Leon Surdyk. Received March 27, 2019.
2. Post-Remediation Activity Summary CEMEX Heavy-Duty Shop LUST Remediation. Prepared by SCS Engineers, March 27, 2019. Received March 27, 2019.
3. Underground Storage Tank Investigation, Associated Sand & Gravel Company, Inc. Everett, WA. Prepared by SCS Engineers for Associated Sand & Gravel Company, Inc., April 3, 1991. Received April 23, 2019.
4. Subject: UST Investigation, Associated Sand and Gravel Facility, Everett, Washington. Prepared by SCS Engineers for the Department of Ecology Northwest Regional Office, April 3, 1991. Received on April 23, 2019.

5. Site Topographic Maps prepared by Lehigh Hansen. Received April 23, 2019.
6. Site Cross Section Figures prepared by SCS Engineers, October 2011. Received April 23, 2019.
7. RE: HD Shop Clean-up correspondence with heavy duty shop load count.xlsx as an attachment. Received April 23, 2019.

These documents are kept on file with PLIA and are subject to the Public Records Act (Chapter 42.56 RCW). In-person review of the files may be done by appointment only. Appointments can be made by contacting PLIA at 1-800-822-3905 or pliamail@plia.wa.gov.

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

Analysis of the Cleanup

1. Cleanup of the Site

PLIA has concluded that **no further remedial action** is necessary to clean up contamination associated with the Site. Our conclusion is based on the following analysis:

a. Characterization of the Site.

PLIA has determined your characterization of the Site was sufficient to establish cleanup standards for the Site and select a cleanup action for the Property. The Site is described above and in Enclosure A.

Petroleum contaminated soil (PCS) detected at this Site is associated with 19 former underground storage tanks (USTs) that were used in tandem with a former heavy duty shop at one of CEMEX's mining facilities. The USTs were decommissioned in 1989 (Fig. 3). The historic USTs were diverse in use, including the storage of gasoline, diesel, machine lube oil, and waste oil. The size of the USTs ranged from 300 gallons to 10,000 gallons.

Conceptual Site Model (CSM)

i. Soil Direct Contact:

The depth and extent of the PCS as total petroleum hydrocarbons in the diesel, gasoline and oil ranges (TPH-d-g-o) was located approximately between 10' below ground surface (bgs) and 30' bgs during a 1991 subsurface investigation performed by SCS Engineers. Contamination was detected in the initial subsurface investigation at 17,000 mg/kg TPH-d at 10' bgs, above the MTCA Method A unrestricted land-use cleanup levels. In 2013, eight test pits were

advanced at the Site to bound the footprint of the remaining contamination. TP3-10' detected TPH-d-o at concentrations of 6,600 mg/kg TPH-d-o at 10' bgs and 330 mg/kg TPH-g at 8' bgs. Benzene was also detected at 0.10 mg/kg at TP3-8' at 8' bgs. TP5-8' detected a concentration of 8,900 mg/kg TPH-d-o at 8' bgs. TPH-g and benzene were also detected at TP5-8' at 130 mg/kg and 0.05 mg/kg respectively. The location of the PCS is within the depths (0 to 15 ft. bgs) that humans (utility workers and property developers) may come into contact.

Result: The direct contact exposure pathway was a concern at this Site.

ii. **Vapor Exposure:** There are no building footprints (Fig. 3) within the lateral inclusion zone of 30 ft. or 6 ft. vertical separation from the edge of the contamination at the former UST location. The lateral inclusion zone or vertical separation distance are defined as the area surrounding a contaminant source through which vapor phase contamination might travel and intrude into buildings (ITRC 2018, EPA 2018, Ecology Draft VI Guidance update 2018).

Result: The vapor exposure pathway is not a concern at this Site.

iii. **Groundwater:** Perched lenses of groundwater were observed at the Site during the 1991 Subsurface Investigation at depths of 25-30' bgs. Two monitoring wells were drilled and water was sampled for TPH-d-g-o and BTEX COCs. All water collected at the Site reported non-detect (ND) for all COCs in the perched groundwater. In 2013, eight test pits were advanced in order to determine the footprint of the remaining contamination at the Site. Groundwater was not encountered during the test pit investigation or remedial excavation in 2013. The depth to regional groundwater at the Site was determine to be approximately 75' bgs (Figs. 5 and 6).

Result: The groundwater leaching exposure pathway is not a concern at this Site.

iv. **Surface water:** The nearest body of surface water is Pigeon Creek approximately 3,250' north of the Site.

Result: The surface exposure pathway is not a concern at this Site.

b. Establishment of cleanup standards.

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

i. Cleanup Levels

Table 1. The COCs and cleanup levels are:

Contaminants of Concern (COCs)	Soil Cleanup Level mg/kg (**Method A**) Un-restricted Land Use	Groundwater Cleanup Level ug/l (Method A)	Sub-slab/soil gas Screening Levels ug/m^3 (Method B SL)	Indoor/Air Cleanup Levels ug/m^3 (Method B CUL)
TPH-d	2,000	500	-	-
TPH-o	2,000	500	-	-
TPH-g	100/30	1000/800	-	-
Benzene (carcinogen)	0.03	5	-	0.321
Toluene	7	1000	-	2290
Ethylbenzene	6	700	-	457
Xylenes, -m, -o	9	1000	-	45.7
Naphthalene (**carcinogen**) (does not include 1-methyl and 2-methyl naphthalene)	-	-		0.0735
Total Petroleum Hydrocarbon	-	-	-	140
APH [EC5-8 Aliphatics]	-	-	-	2,700
APH [EC9-12 Aliphatics]	-	-	-	140
APH [EC9-10 Aromatics]	-	-	-	180

ii. Points of Compliance.

The proposed Points of Compliance are:

Soil-Direct Contact: For soil cleanup levels based on human exposure via direct contact under WAC 173-240-740(6)(d), the point of compliance is established throughout the site from the *from ground surface to 15' below the ground surface (bgs). This represents a reasonable estimated of the depth of soil that could be excavated and distributed at the soil surface as a result of site development activities*

Groundwater: For groundwater, the standard point of compliance as established under WAC 173-340-720(8) is established *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.*"

Vapor: For vapor, ambient and indoor, the standard POC under WAC 173-240-740(6)(c), *is established in the soil throughout the Site from the ground surface to the uppermost groundwater saturated zone (water table), where contamination has come to be located.*

c. Selection of cleanup action.

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

i. Decommissioning of former USTs (1989)
- 19 USTs were decommissioned by removal

ii. Excavation (estimated volume of 17,150 tons) and removal of PCS at the Site (2013)

iii. Collected points of compliance Post Excavation of the soil to confirm effectiveness of the 2013 cleanup action.

4. Cleanup.

PLIA has determined the cleanup action you performed at the Site meets the substantive requirements of MTCA.

a. Direct Contact, Groundwater, Surface water and Vapor Exposure Pathways:

i. Decommissioning of former USTs (1989).
- The 19 former USTs were decommissioned by removal.

ii. Excavation and removal of an estimated volume of PCS at the Site:
- The lateral and vertical extent PCS detected at the Site was successfully over excavated to levels below the MTCA Method A Cleanup level for unrestricted land use of 2,000 mg/kg for TPH-d-o and 100/30 mg/kg for TPH-g.

iii. Conducted performance sampling of the soil to confirm effectiveness of the remedial action.

- **Soil Direct Contact - Points of Compliance:** The limit of the excavation is bounded by the extent of PCS confirmation sampling results below cleanup levels: laterally, to the north it is bounded by borings West Wall N at 15' bgs, Northway at 10' bgs, North Addl. Center Floor W at 12' bgs, North Addl. NW Floor at 12' bgs, North Addl. NE Floor at 12' bgs, and NE Corner at 8' bgs. To the east the excavation is bound by borings East Wall at 8' bgs, East Wall (40'E) at 8' and 12' bgs, East Wall (25'E) at 12' bgs, and East Wall (15'E) at 12' bgs. To the south the excavation is bound by borings East Wall SE Corner at 15' bgs, South Wall (55'E) at 8' bgs, South Wall (30'E) at 30' bgs, and South Wall (10' E) at 6' bgs. The western limit of excavation is bound by borings West Wall (12'N) at 6' bgs, West Wall Conf. at 12' bgs, and West Wall (25'N) at 12' bgs. The base of the excavation is bound by borings W Floor at 12' bgs, NW Floor at 12' bgs, Pit Wall Ctr West at 40' bgs, SW Floor at 10' bgs, SW Floor at 30' bgs, SSW Floor #2 at 30' bgs, West Floor at 15' bgs, SSW Floor (40'E) at 20' bgs, Center Floor at 15' bgs, South Floor at 15' bgs, SE Floor at 30' bgs, SE Floor #2 at 30' bgs, SSE Floor #2 at 15' bgs, East Floor at 15' bgs, and Pit Wall Ctr East at 40' bgs. The Performance sampling results for the PCS is below the MTCA Method A Cleanup level for unrestricted land use of 2000 mg/kg for TPH-d-o & 100/30 mg/kg for TPH-g (Figs. 3-6, Table 1).

  Following the remedial excavation, the Site was used as a gravel mining facility and all material in the footprint was removed to a depth of 65' bgs, the maximum depth allowed by CEMEX's mining permits (Figs. 5 and 6).

  Result: The soil direct contact is no longer a concern at this Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

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

- Change the boundaries of the Site.
- 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 the Office of the Attorney General and the Department of 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 equivalent. Courts make that determination (RCW 70.105D.080 and WAC 173-340-545).

3. State is immune from liability.

The state, PLIA, 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.

Termination of Agreement

Thank you for choosing to cleanup your Property under the PTAP. This opinion terminates the PTAP Agreement governing this project, #PNW135.

Contact Information

Thank you for choosing to clean up your property under PTAP. If you have any questions about this opinion, please contact me by phone at 1-800-822-3905, or by email at caleb.kaiser@plia.wa.gov.

Sincerely,

Caleb Kaiser
Environmental Specialist

Enclosure A: Figure 1: Site Vicinity Map
Figure 2: Site Topographic Map
Figure 3: Excavation Boundary and POCs
Figure 4: Excavation Boundary and Cross Section Lines
Figure 5: Site Cross-Section A-A'
Figure 6: Site Cross-Section B-B'
Table 1: Soil Analytical Results
Table 2: Historic Groundwater Analytical Results

cc: Mr. Joerg Nixdorf, Cadman Materials
Ms. Kristin Evered, PLIA (by email)
Dr. Li Ma, PLIA (by email)
Mr. Nnamdi Madakor (by email)

Enclosure A
Associated Sand & Gravel UST Site – PNW135

Description of the Site:

Background: The Associated Sand and Gravel Site has operated as a gravel mining and support location since the mid-1940s. The Site mines sand and gravel, produces ready-mix concrete, and operates a thermal desorption soil-treatment plant and reclamation landfill. The 19 USTs decommissioned in 1989 were associated with a heavy duty shop operated on Site as a maintenance and repair location for off-road earth moving equipment. In 1991, a subsurface investigation was performed to determine the magnitude of impact from the former USTs. In 2013, the heavy duty shop was demolished and a remedial action plan was implemented. Eight test pits were advanced to bound the limit of contamination in the footprint of the former heavy duty shop, then the area was excavated to remove all PCS. The PCS was disposed of on Site at CEMEX's thermal desorption soil treatment plant. Following the remedial excavation, the footprint of the Site was mined down to 65' bgs.

Setting: The topography surrounding the subject Property consists of low, gently rolling, erosionally modified glacial terrain, with elevations ranging from 580 to 350' above mean sea level. The geology at the Site consists of thin, superficial deposits of recessional outwash primarily consisting of gravelly sandy loams that have filled location depressions eroding into an underlying glacial till. Static groundwater levels in 2013 were located approximately 65' bgs, with layers of perched groundwater encountered in 1991 at 25-30' bgs.

1989 – Tank Decommissioning occurred in 1989 around the former heavy duty shop located at the Site. A total of 19 USTs of various sizes and uses were removed from the Site.

1991- Initial Environmental Assessment around the former tanks was performed by SCS Engineers. This was a Phase I Assessment aimed at determining the historic and current work at the Site, as well as the disposal practices to determine the potential impact at the Site. Later in March, 1991 a Phase II soil and groundwater investigation was performed by SCS Engineers. Twelve borings were drilled at four of the former UST locations. The borings penetrated to depths of 20-40' bgs. Perched groundwater was encountered at 24-30' bgs but tested ND for all TPH-d-g-o and BTEX constituents. Groundwater was not detected elsewhere at the Site. In the soil, contamination was detected at concentrations of 11,200 mg/kg and 17,100 mg/kg TPH-d. The contamination was delineated at approximately 30' bgs.

2013- Site Investigations started with advancing eight test pit locations at the Site. Two test pits (TP3 and TP5) detected residual contamination (6,600 mg/kg TPH-d, 330 mg/kg TPH-g and 0.10 mg/kg benzene at TP3 and 8,900 mg/kg TPH-d, 130 mg/kg TPH-g and 0.05 mg/kg benzene at TP5). A large scale excavation was initiated on June 3, 2013. SCS Engineers directed the removal of soils with the use of field screening, a photo-ionization detector, and frequent sampling from an on-site laboratory. The excavation depths ranged from 9' to 40' bgs. After the remedial excavation, the Site was mined to 65' bgs for sand and gravel.

Figure 1: Site Vicinity Map

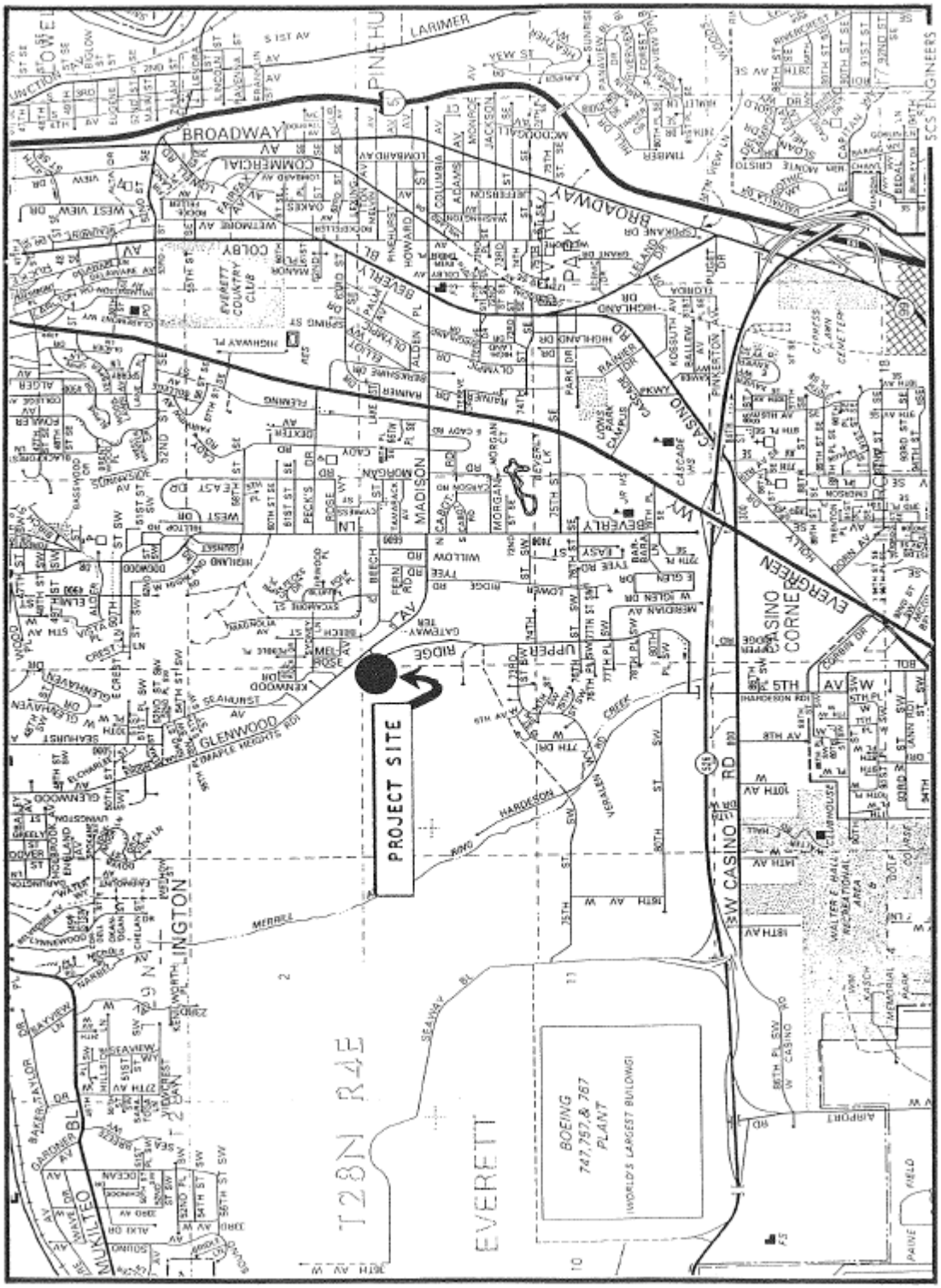

Figure 1 – Map Showing Project Site Location. (After Thomas Bros. Maps; 1989)

Figure 2: Site Topographic Map

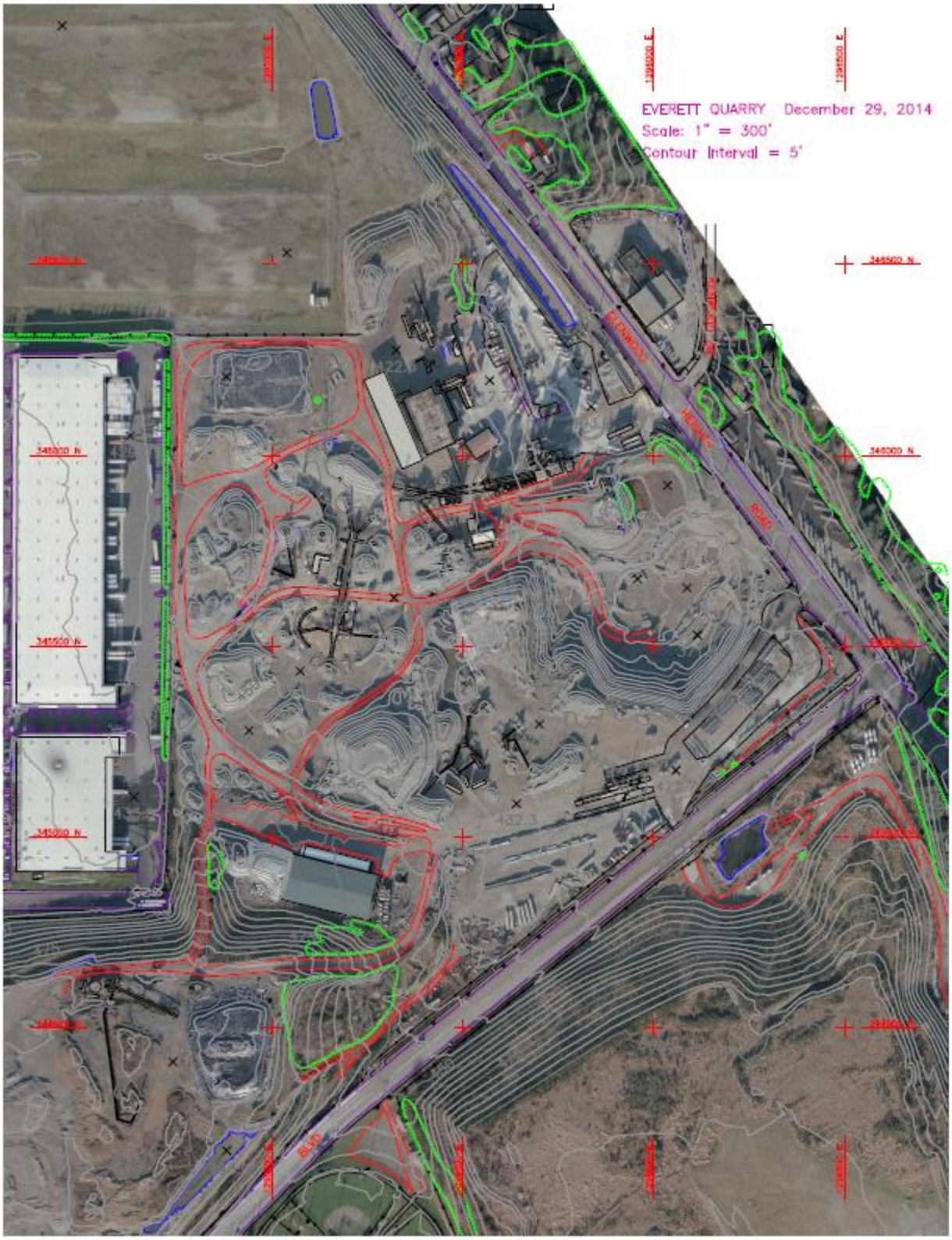

Figure 3: Excavation Boundary and POCs

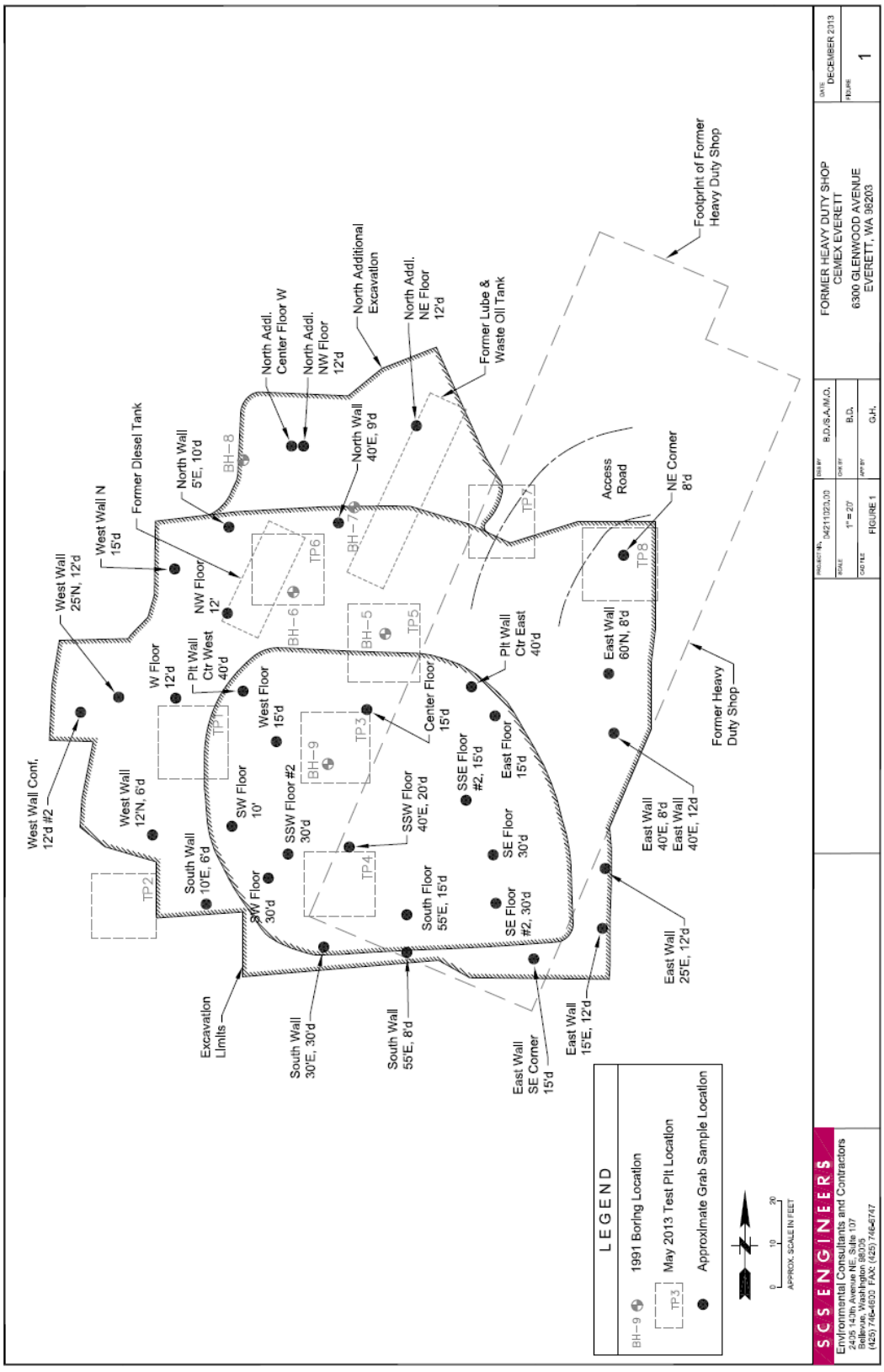

Figure 4: Excavation Boundary and Cross Section Lines

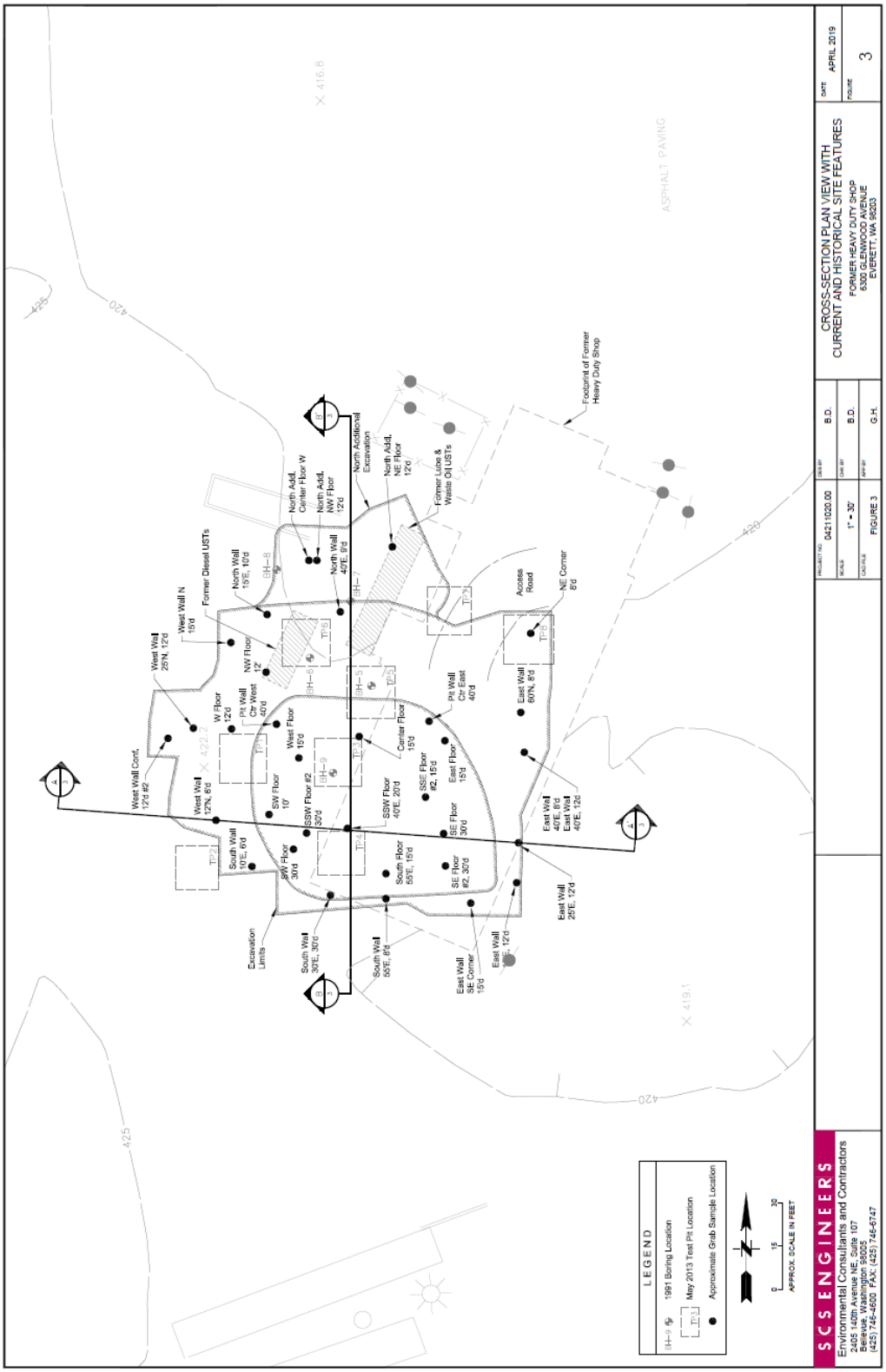

Figure 5: Site Cross Section A-A'

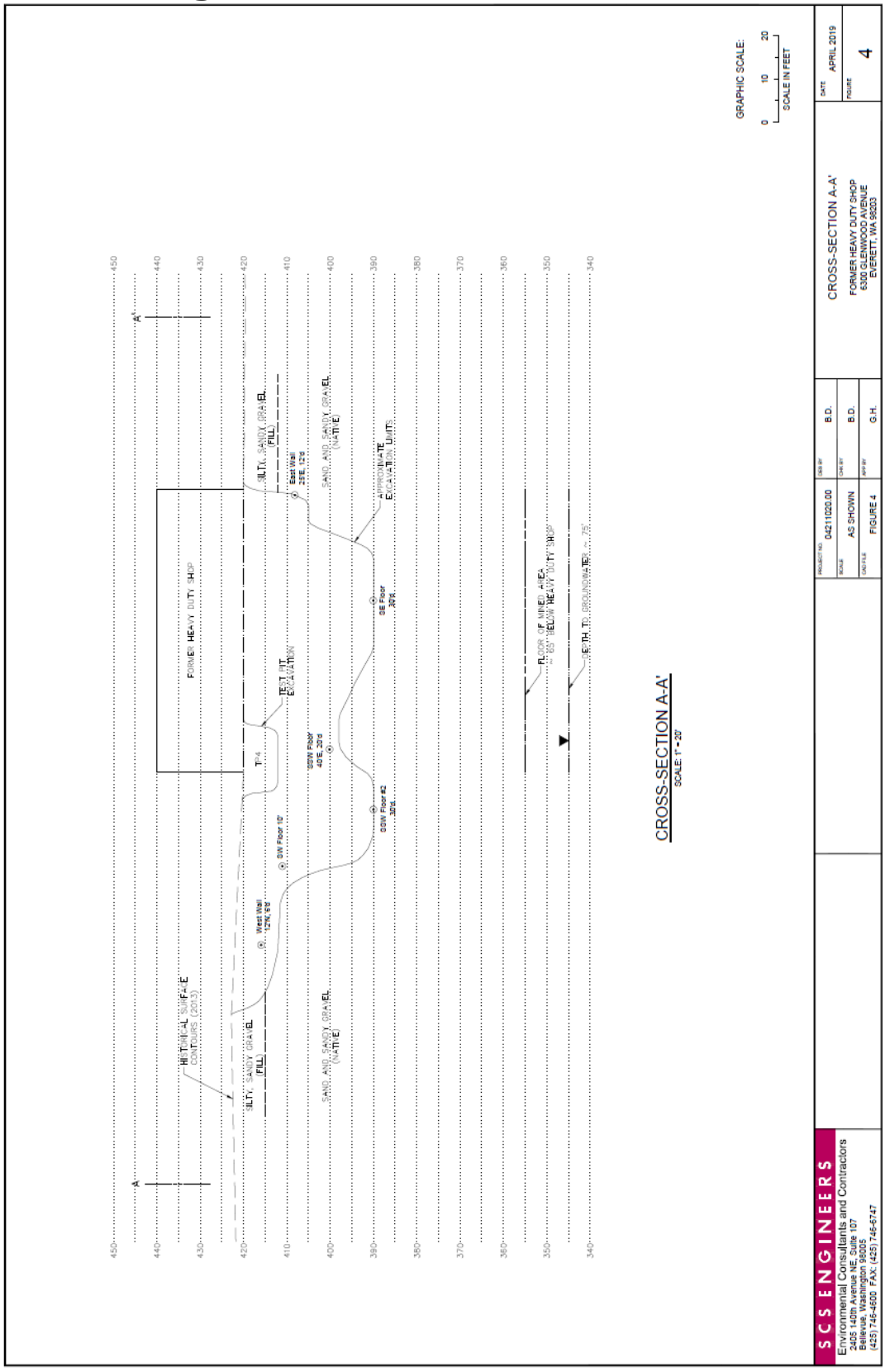

Figure 6: Site Cross Section B-B'

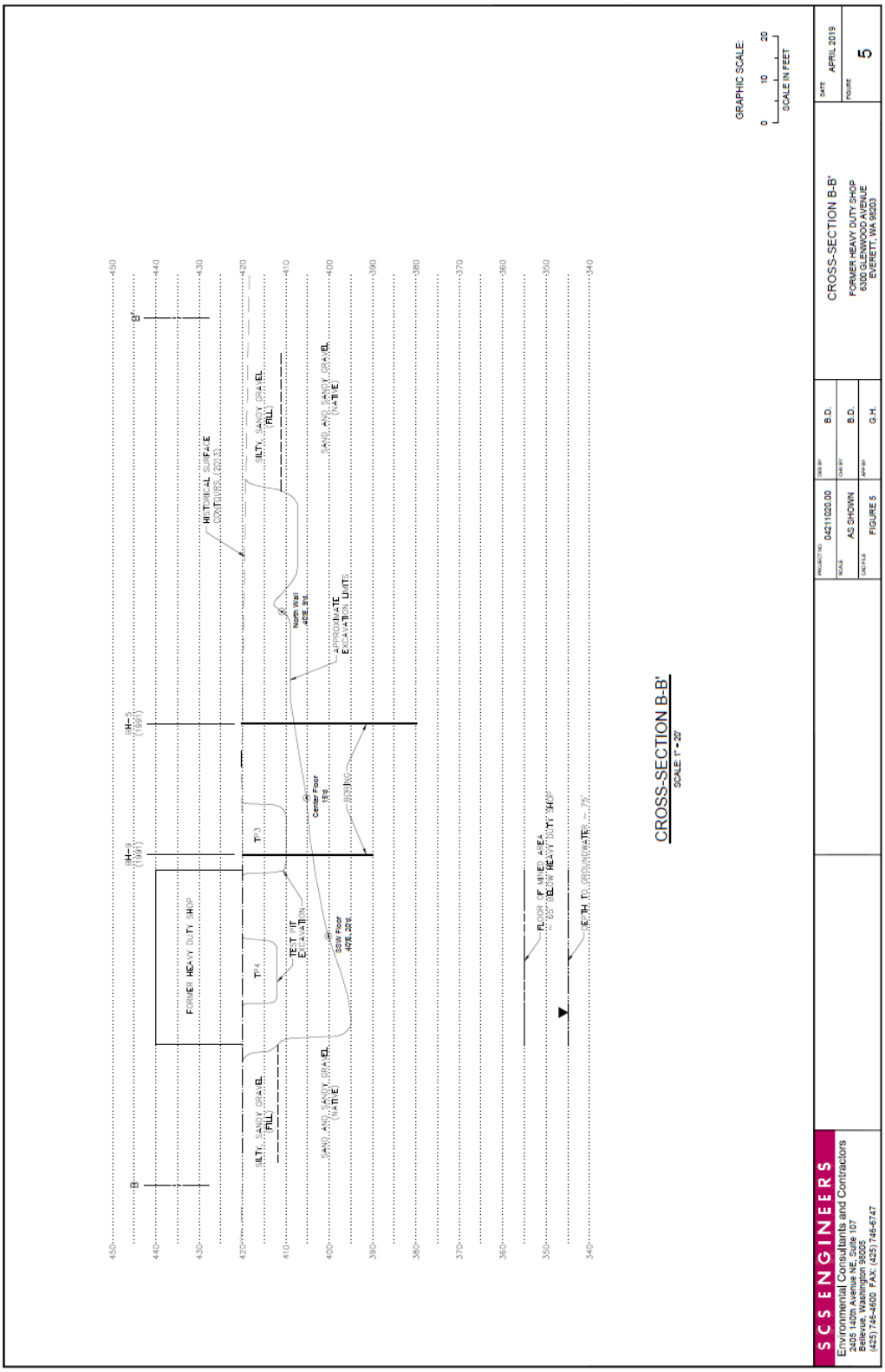

Table 1: Soil Analytical Results

Table A1: Characterization Soil Sample Analytical Results
CEMEX Former HD Shop, Everett, Washington

Sample	Result Diesel Range	Oil Range	Lab	Type	Sample Date	Notes
SP1-A	81	140	CEMEX	characterization	5/22/2013	Stockpile from Test Pit 1
SP1-B	<25	<50	CEMEX	characterization	5/22/2013	Stockpile from Test Pit 1
SP2-A	<25	<50	CEMEX	characterization	5/22/2013	Stockpile from Test Pit 2
SP2-B	<25	<50	CEMEX	characterization	5/22/2013	Stockpile from Test Pit 2
TP2-7'	<25	<50	CEMEX	characterization	5/22/2013	
TP3-10'	1400	5200	CEMEX	characterization	5/22/2013	1991: BH-9 at 10' contained 17,100 mg/kg TPH
TP4-8'	31	79	CEMEX	characterization	5/22/2013	
TP5-8'	2100	6800	CEMEX	characterization	5/22/2013	1991: BH-5 at 5' contained 11,200 mg/kg TPH
TP6-10'	72	650	CEMEX	characterization	5/22/2013	
TP7-10'	<25	<50	CEMEX	characterization	5/22/2013	
TP8-9'	35	450	CEMEX	characterization	5/22/2013	
West Wall 5'	<25	<50	CEMEX	characterization	6/3/2013	ND but no corresponding ALS sample
West Floor 10'	<25	<50	CEMEX	characterization	6/3/2013	ND but no corresponding ALS sample
South Wall 30E 5'	<50	260	CEMEX	characterization	6/3/2013	
West Wall 35N 5'	<25	<50	CEMEX	characterization	6/3/2013	ND but no corresponding ALS sample
North Addl SE Floor	<25	<50	CEMEX	characterization	6/4/2013	ND but no corresponding ALS sample
North Addl SW Floor	<25	<50	CEMEX	characterization	6/4/2013	ND but no corresponding ALS sample
East Wall 8N 8'	750	190	CEMEX	characterization	6/5/2013	
East Wall 30N 8'	300	58	CEMEX	characterization	6/5/2013	
SE Floor 30'd	29	<50	CEMEX	characterization	6/11/2013	
W Wall 25'N 12'd	240	140	CEMEX	characterization	6/14/2013	no corresponding ALS sample
MTCA Method A cleanup level	2,000	2,000				

Sample	Result Gas Range	Benzene	Toluene	Ethylbenzene	Xylenes	Lab	Type	Sample Date
TP3-8'	330	0.10	0.66	1.10	5.00	ALS	characteriz	5/22/2013
TP5-8'	130	0.05	0.036	0.15	0.28	ALS	characteriz	5/22/2013
MTCA Method A	100	0.03	7	6	9			

Table 1: Soil Analytical Results (continued)

Table A2: Confirmation Soil Sample Analytical Results
CEMEX Former HD Shop, Everett, Washington

Sample	Diesel Range	Result Oil Range	Lab	Type	Sample Date	Notes
South Wall 10'E, 6'd	<25	<50	ALS	confirmation	6/3/2013	
SW Floor 10'	<25	<50	ALS	confirmation	6/3/2013	
NW Floor 12'	<25	<50	ALS	confirmation	6/3/2013	
West Wall 12'N, 6'd	<25	<50	ALS	confirmation	6/3/2013	
West Wall N 15'	<25	<50	ALS	confirmation	6/4/2013	collected by CEMEX chemist from north end of west wall at 15' deep
North Addl. Center Floor W.	NA	NA	ALS	confirmation	6/4/2013	ND for gas w/ BTEX.
South Wall 55'E 8'd	<25	<50	ALS	confirmation	6/4/2013	
South Floor 55'E 15'd	<25	<50	ALS	confirmation	6/4/2013	
East Wall SE Corner 15'	<25	<50	ALS	confirmation	6/5/2013	
East Wall SE Corner 15'	<25	<50	CEMEX		6/5/2013	
East Wall 60'N 8'd	<25	<50	ALS	confirmation	6/5/2013	ND for gas w/ BTEX.
North Wall 15'E 10'd	<25	<50	ALS	confirmation	6/5/2013	
North Wall 40'E 9'd	<25	<50	ALS	confirmation	6/5/2013	ND for gas w/ BTEX.
NE Corner 8'	<25	<50	ALS	confirmation	6/10/2013	
North Addl. West Floor	<25	<50	ALS	confirmation	6/10/2013	
North Addl. East Floor	<25	<50	ALS	confirmation	6/10/2013	
E Wall 25'E 12'd	<25	<50	ALS	confirmation	6/11/2013	
E Wall 40'E 12'd	<25	<50	ALS	confirmation	6/11/2013	
E Wall 15'E 12'd	<25	<50	ALS	confirmation	6/11/2013	
E Wall 40'E 8'd	<25	<50	ALS	confirmation	6/11/2013	
SW Floor 30'd	<25	<50	ALS	confirmation	6/11/2013	
SE Floor 30'd	190	<50	ALS	confirmation	6/11/2013	
SSW Floor 40'E 20'd	<25	52	ALS	confirmation	6/11/2013	no corresponding CEMEX sample
W Floor 12'd	<25	<50	ALS	confirmation	6/11/2013	
S Wall 30'E 30'd	<25	<50	ALS	confirmation	6/11/2013	
SSW Floor #2, 30'd	42	68	ALS	confirmation	6/14/2013	ND for gas
North Addl NE Floor 12'd	<25	<50	ALS	confirmation	6/14/2013	
North Addl NW Floor 12'd	<25	<50	ALS	confirmation	6/14/2013	
West Floor 15'd	<25	<50	ALS	confirmation	6/14/2013	ND for gas w/ BTEX.
Center Floor 15'd	<25	<50	ALS	confirmation	6/14/2013	ND for gas w/ BTEX.
SSE Floor #2 15'd	<25	<50	ALS	confirmation	6/14/2013	ND for gas w/ BTEX.
East Floor 15'd	<25	<50	ALS	confirmation	6/14/2013	
SE Floor #2 30'd	<25	<50	ALS	confirmation	6/14/2013	
West Wall Conf. 12'd #2	<25	<50	ALS	confirmation	9/6/2013	depth in sample name refers to depth of overlying layer removed
Pit Wall Ctr East 40'd	<25	<50	ALS	confirmation	9/18/2013	
Pit Wall Ctr West 40'd	<25	<50	ALS	confirmation	9/18/2013	
MTCA Method A cleanup level	2,000	2,000				

Table 1: Soil Analytical Results (continued)

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
FAX (213) 595-6709

MEMO

RECEIVED
MAR 18 1991
S.C.S. ENGINEERS

To: Dan Venchiarutti

From: Lam V. Ho

March 13, 1991

Job No.: 0490027.01

LABORATORY REPORT

Samples: forty two (42) soil samples from Associated Sand and Gravel Phase II. Received 03/01/91 and analyzed 03/05/91 and 03/07/91. Eighteen (18) soil samples to be analyzed and the remainder to be archived.

Sample ID	EPA 8015 ---mg/kg---
18030 MW1-5'	ND
18031 MW1-10'	ND
18036 BH2-10'	ND
18037 BH2-15'	ND
18043 BH4-10'	ND
18051 BH5-25'	ND
18052 BH5-30'	ND
18056 BH6-10'	ND
18058 BH6-20'	ND
18062 BH7-10'	ND
18063 BH7-15'	ND
Detection Limit	10

Sample ID	EPA 418.1 ----mg/kg----
18039 MW3-5'	18
18040 MW3-10'	ND
18042 BH4-5'	60
18043 BH4-10'	19
18047 BH5-5'	11,200
18048 BH5-10'	846
18050 BH5-20'	456
18063 BH7-15'	ND
18067 BH8-10'	13
Detection Limit	10

David Sincerbeaux
Chemist

Lam V. Ho PhD,REP
Laboratory Director

assand1.rep

Table 1: Soil Analytical Results (continued)

RECEIVED
MAR 19 1991
S.C.S. ENGINEERS

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 908
(213) 595-9324
FAX (213) 595-6709

MEMO

To: Dan Venchiarutti

From: Lam V. Ho March 18, 1991

Job No.: 0490027.01

LABORATORY REPORT

Samples: Thirty two (32) soil samples from Associated Sand and Gravel, Everett, Wa. Received 03/07/91 and analyzed 03/14/91 and 03/15/91. Eleven (11) soil samples to be analyzed and the remainder to be archived. (5 DAY RUSH ANALYSIS)

Sample ID	EPA 8015 ---mg/kg---	Sample ID	EPA 418.1 ----mg/kg----
18073 BH9-10'	ND	18073 BH9-10'	17,100
18075 BH9-20'	ND	18075 BH9-20'	119
18080 BH10-15'	ND	18090 BH12-5'	119
18086 BH11-15'	ND	18091 BH12-10'	26
18089 BH11-30'	ND		
Detection Limit	10	Detection Limit	10

David Sincerbeaux
Chemist

Lam V. Ho PhD,REP
Laboratory Director

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Table 1: Soil Analytical Results (continued)

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MAR 2 5 1991
S.C.S. ENGINEERS

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
FAX (213) 595-6209

MEMO

To: Dan Venchiarutti

From: Lam V. Ho March 21, 1991

Job No.: 0490027.01 Page 1 of 1

LABORATORY REPORT

Samples: Forty two (42) soil samples from Associated Sand and Gravel Phase II. Received 03/01/91, analysis requested for one (1) soil sample on 03/20/91 and analyzed 03/21/91. (SUPER RUSH ANALYSIS)

Sample ID	EPA 418.1 ----mg/kg----
18052 BH5-30	151
Detection Limit	10

David Sincerbeaux
Chemist

Lam V. Ho PhD,REP
Laboratory Director

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Table 1: Soil Analytical Results (continued)

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S.C.S. ENGINEERS

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
FAX (213) 595-6709

MEMO

To: Dan Venchiarutti

From: Lam V. Ho March 26, 1991

Job No.: 0490027.01 Page 1 of 1

LABORATORY REPORT

Samples: Forty-two (42) soil samples from Associated Sand and Gravel Phase II. Received 03/01/91, analysis requested for three (3) soil samples on 03/25/91 and analyzed 03/25/91. (SUPER RUSH ANALYSIS)

Sample ID	EPA 418.1 ----mg/kg----
18053 BH5-35	ND
18056 BH6-10	ND
18058 BH6-20	ND
Detection Limit	10

David Sincerbeaux
Chemist

Lam V. Ho PhD,REP
Laboratory Director

assand5.rep

Table 2: Historic Groundwater Analytical Results

SCS ANALYTICAL LABORATORY
2880 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
FAX (213) 595-6209

MEMO

To: Dan Venchiarutti

From: Lam V. Ho

Job No.: 0490027.01

RECEIVED
MAR 19 1991
S.C.S. ENGINEERS

March 18, 1991

LABORATORY REPORT

Samples: Seven (7) soil samples and six (6) water samples from Associated Sand and Gravel, Everett, Wa. Received 03/11/91 and analyzed 03/12/91, 03/14/91 and 03/15/91. Four (4) soil samples and six (6) water samples to be analyzed and the remainder to be archived. (5 DAY RUSH ANALYSIS)

Sample ID	EPA 418.1
	----mg/L-----
18117 MW-1	ND
18121 MW-3	ND

Detection Limit 0.5

David Sincerbeaux
Chemist

Lam V. Ho PhD,REP
Laboratory Director

assand3.rep

Table 2: Historic Groundwater Analytical Results (continued)

SCS ANALYTICAL LABORATORY

Addendum Report, EPA 602

Sample I.D.: 18115 MW-1
Date Received: 03/11/91
Date Analyzed: 03/14/91
Matrix: Water
Project #: 0490027.01
File #: assand3.rep

Compound	Result ----ug/L (ppb)----	D.L.
Benzene	ND	0.7
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Toluene	ND	1
Xylenes	ND	1
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1

D.L. = Detection Limit
ND = Not Detected

Table 2: Historic Groundwater Analytical Results (continued)

SCS ANALYTICAL LABORATORY

Addendum Report, EPA 602

Sample I.D.: 18119 MW-3
Date Received: 03/11/91
Date Analyzed: 03/14/91
Matrix: Water
Project #: 0490027.01
File #: assand3.rep

Compound	Result ----ug/L (ppb)----	D.L.
Benzene	ND	0.7
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Toluene	ND	1
Xylenes	ND	1
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1

D.L. = Detection Limit
ND = Not Detected