STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, Washington 98504-7600 • 360-407-6300

December 3, 2024

Chang Kim
23886 SE Kent Kangley Rd
Maple Valley, WA 98038
jbangiek@gmail.com

SENT BY EMAIL ONLY

Re: No Further Action opinion for the following contaminated Site

Site name:	Four Corners Cleaners New Location
Site address:	23886 SE Kent Kangley Rd, Maple Valley, King County, WA 98038
Facility/Site ID:	5867
Cleanup Site ID:	12513
VCP Project No.:	NW3234

Dear Chang Kim:

The Washington State Department of Ecology (Ecology) received your request on July 24, 2024, for an opinion regarding the sufficiency of your independent cleanup of the Four Corners Cleaners New Location facility (Site) under the Voluntary Cleanup Program (VCP).[1] This letter provides our opinion and analysis. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), chapter 70A.305 RCW.[2]

Note: Ecology issued a No Further Action (NFA) determination to this Site on February 28, 2017. That letter is hereby rescinded. The site investigations supporting that letter are described in Enclosure C and in the first three documents listed in Enclosure B.

Opinion

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

[1] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program
[2] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA and its implementing regulations, which are specified in chapter 70A.305 RCW and chapter 173-340 WAC[3] (collectively called "MTCA").

Site Description

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(s):

- Tetrachloroethene, trichloroethene, cis 1,2-dichloroethene, trans 1,2-dichloroethene, and vinyl chloride in the soil and soil vapor
- 1,1,2-dichloroethane, dichlorodifluoromethane, and chloroform in soil vapor

Enclosure A includes Site description and diagrams.

Please note that releases from multiple sites can affect a parcel of real property. At this time, Ecology has no information that other sites affect the parcel(s) associated with this Site.

Basis for the Opinion

Ecology bases this opinion on information in the documents listed in Enclosure B. You can request these documents by filing a records request.[4] For help making a request, contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or call 360-407-6040. Before making a request, check whether the documents are available on Ecology's Cleanup and Tank Search web page.[5]

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

[3] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340
[4] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[5] https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=5867

Analysis of the Cleanup

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

Characterizing the Site

Ecology has determined your completed Site characterization is sufficient for setting cleanup standards and selecting a cleanup action. Enclosure A describes the Site.

In March of 2017, three soil borings were installed on-Site. Three soil samples were collected and analyzed for tetrachloroethene, trichloroethene, cis 1,2-dichloroethene, trans 1,2-dichloroethene, and vinyl chloride. Fourteen soil vapor samples were collected and analyzed for the same analytes.

Table 1. Soil Samples – March 2017

Contaminant	**MTCA Method A/B Cleanup Level** (mg/kg)	**Maximum Concentration** (mg/kg)	**Number of Exceedances/ Number of Samples**	**Number of Detections/ Number of Samples**
Tetrachloroethene	0.05	0.067	2/3	3/3
Trichloroethene	0.03	none	0/3	0/3
Cis 1,2-dichloroethene	160	none	0/3	0/3
Trans 1,2-dichloroethene	1,600	none	0/3	0/3
Vinyl chloride	0.067	none	0/3	0/3

Table 2. Soil Vapor Samples – March 2017

Contaminant	**MTCA Method A/B Screening Level** ($\mu g/m^3$)	**Maximum Concentration** ($\mu g/m^3$)	**Number of Exceedances/ Number of Samples**	**Number of Detections/ Number of Samples**
Tetrachloroethene	320	6,300	13/14	14/14
Trichloroethene	11	none	0/14	0/14
Cis 1,2-dichloroethene	610	none	0/14	0/14
Trans 1,2-dichloroethene	610	none	0/14	0/14
Vinyl chloride	9.50	none	0/14	0/14
Dichlorodifluoromethane	1,500	15,000	10/14	13/14
Chloroform	3.60	31,000	2/14	2/14
1,1,2-tricholoroethane	5.20	380	1/14	1/14

Note – dichlorodifluoromethane is a refrigerant. The source of the last three of the above analytes was not known and, except for 1,1,2-trichloroethane, was not further investigated.

In July of 2018, ten additional soil borings were installed on-Site. Forty-seven soil samples were collected and analyzed for the same analytes. Six grab groundwater samples were collected and analyzed for the same analytes. There were no detections of any analyte in any sample.

Table 3. Soil Samples – July 2018

Contaminant	**MTCA Method A/B Cleanup Level** (mg/kg)	**Maximum Concentration** (mg/kg)	**Number of Exceedances/ Number of Samples**	**Number of Detections/ Number of Samples**
Tetrachloroethene	0.05	0.053	1/47	3/47
Trichloroethene	0.03	none	0/47	0/47
Cis 1,2-dichloroethene	160	none	0/47	0/47
Trans 1,2-dichloroethene	1,600	none	0/47	0/47
Vinyl chloride	0.067	none	0/47	0/47

All three detections occurred in one boring (B-11) at depths from 18 feet below ground surface (ft bgs) to 24 ft bgs.

In May of 2020, four monitoring wells were installed on-Site. Thirty-two soil samples were collected and analyzed for the same analytes. Between June of 2020 and July of 2024, there were ten rounds of groundwater sampling from the four wells. The groundwater samples were analyzed for the same analytes. There were no detections of any analyte in any sample. Therefore, Ecology concluded that the groundwater at the site was not contaminated.

Table 4. Soil Samples – May 2020

Contaminant	**MTCA Method A/B Cleanup Level** (mg/kg)	**Maximum Concentration** (mg/kg)	**Number of Exceedances/ Number of Samples**	**Number of Detections/ Number of Samples**
Tetrachloroethene	0.05	0.12	1/32	2/32
Trichloroethene	0.03	0.031	1/32	2/32
Cis 1,2-dichloroethene	160	none	0/32	0/32
Trans 1,2-dichloroethene	1,600	none	0/32	0/32
Vinyl chloride	0.067	none	0/32	0/32

Both exceedances occurred in one well (MW-3) at depths from 18 ft bgs to 21 ft bgs.

Setting cleanup standards

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

Table 5. Cleanup and Screening Levels

Hazardous Substance	Method A/B Soil Cleanup Level (mg/kg)	Method A/B Groundwater Cleanup Level (µg/l)	Method B Vapor Intrusion Sub-Slab Soil Gas Screening Level (µg/m^3)
Tetrachloroethene	0.05	5	320
Trichloroethene	0.03	5	11
Cis 1,2-dichloroethene	160	16	610
Trans 1,2-dichloroethene	1,600	160	610
Vinyl chloride	0.67	0.2	9.50
1,1,2-trichloroethane	320	0.77	5.2
Dichlorodifluoromethane	16,000	1,600	1,500
Chloroform	32	1.4	3.6

The standard horizontal point of compliance for soil and groundwater is throughout the site.

The standard vertical point of compliance for the direct-contact pathway for soils is 15 ft bgs. Soils deeper than 15 ft bgs are considered protective for direct contact with the contaminated soil.

Cleanup standard based on the soil-protective-of-groundwater pathway apply without respect to depth.

The standard vertical point of compliance for groundwater is from the uppermost level of the saturated zone to the lowest depth that could potentially be affected.

Selecting the cleanup action

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

The selected interim remedial action was air sparging – soil vapor extraction. These actions meet the minimum requirements for cleanup actions by providing a permanent solution, immediate restoration time frame, provides for confirmation monitoring, and protects human health and the environment.

Implementing the cleanup action

Ecology has determined your cleanup meets the standards set for the Site.

In August of 2019, a soil vapor extraction system was installed and operated from October 2019 until December 2023. Between October 2019 and October 2023, 18 rounds of the four sub-slab soil vapor sampling points were conducted (one sampling point was sampled twelve times). The vapor samples were analyzed for the same analytes. Following shutdown of the system, six soil borings were installed on the Site. Ten soil samples were collected from the six borings and analyzed for the same analytes.

Table 6. Confirmation Soil Vapor Samples – October 18, 2023

Contaminant	MTCA Method A/B Sub-slab Soil Gas Screening Level ($\mu g/m^3$)	Maximum Concentration ($\mu g/m^3$)	Number of Exceedances/ Number of Samples	Number of Detections/ Number of Samples
Tetrachloroethene	320	190	0/66	53/66
Trichloroethene	11	4.48	0/66	29/66
Cis 1,2-dichloroethene	610	none	0/66	0/66
Trans 1,2-dichloroethene	610	none	0/66	0/66
Vinyl chloride	9.50	none	0/66	0/66

Note – analysis did not include dichlorodifluoromethane or chloroform. 1,1,2-trichloroethane was analyzed eight times in 2020 and 2021. 1,1,2-trichloroethane was not detected in any of the samples. Analyses in 2022 and 2023 included only the above five analytes.

Table 7. Confirmation Soil Samples – November 2023

Contaminant	MTCA Method A/B Cleanup Level (mg/kg)	Maximum Concentration (mg/kg)	Number of Exceedances/ Number of Samples	Number of Detections/ Number of Samples
Tetrachloroethene	0.05	0.089	1/10	8/10
Trichloroethene	0.03	none	0/10	0/10
Cis 1,2-dichloroethene	160	none	0/10	0/10
Trans 1,2-dichloroethene	1,600	none	0/10	0/10
Vinyl chloride	0.067	none	0/10	0/10

The 95% upper confidence limit, determined by statistical analysis, equaled the Site cleanup level. As there were no exceedances of Site groundwater or soil vapor, Ecology concluded that the Site soil, groundwater, and soil gas had been remediated.

You must decommission resource protection wells[6] installed as part of the remedial action that are not needed for any other purpose at the Site. Wells must be decommissioned in accordance with WAC 173-160-460.[7]

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from the Contaminated Sites List. The Site will be added to the No Further Action Sites list.

Limitations of the Opinion

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 70A.305.040(4).[8]

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 if the action you performed is substantially equivalent. Courts make that determination. See RCW 70A.305.080[9] and WAC 173-340-545.[10]

[6] https://app.leg.wa.gov/WAC/default.aspx?cite=173-160-410
[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-160-460
[8] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040
[9] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080
[10] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545

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 70A.305.170(6).[11]

Termination of Agreement

Thank you for cleaning up the Site under the VCP. This opinion terminates the VCP Agreement governing VCP Project No. NW3234.

Questions

If you have any questions about this opinion or the termination of the Agreement, please contact me at 360-407-7223 or christopher.maurer@ecy.wa.gov .

Sincerely,

Christopher Maurer, P.E.
Toxics Cleanup Program
Headquarters Section

Enclosures (3): A – Site Description and Diagrams
B – Basis for the Opinion: Documents List
C – Earlier Site Characterization

cc by email: Scott Rose, Associated Environmental Group-Atlas, srose@aegwa.com
Amy Hargrove, Ecology, amy.hargrove@ecy.wa.gov
Fiscal, VCP Fiscal Analyst, ecyrevcp@ecy.wa.gov
Ecology Site File

[11] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170

Enclosure A

Site Description and Diagrams

Site Description

MAPLE VALLEY BSP NO CD1409-004 REC VOL 268 PGS 39-43 (REC #20150203001083)

Plat Block:

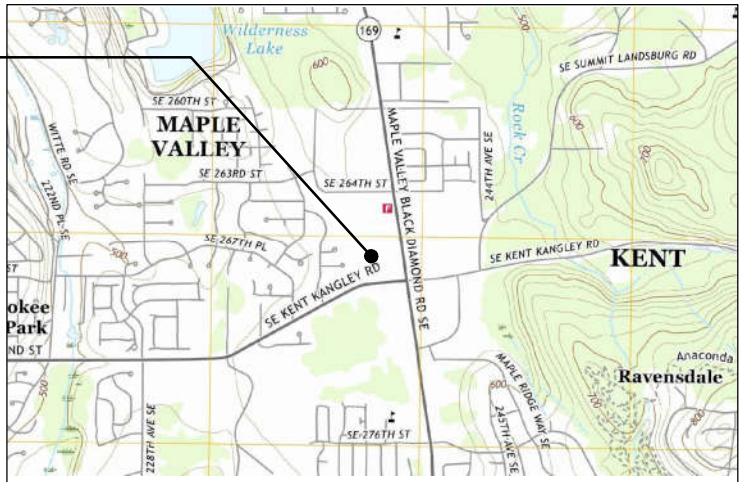
Plat Lot: 1

Site Diagrams

FILENAME	DRAWN BY		CHECKED BY		APPROVED BY		PROJECT NUMBER
17-126_1701.DWG	ICD	3/22/2017	CS	3/22/2017	CS	3/22/2017	17-126

N
W E
S

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–2017, 7.5 MINUTE QUADRANGLE MAP
BLACK DIAMOND, WASHINGTON

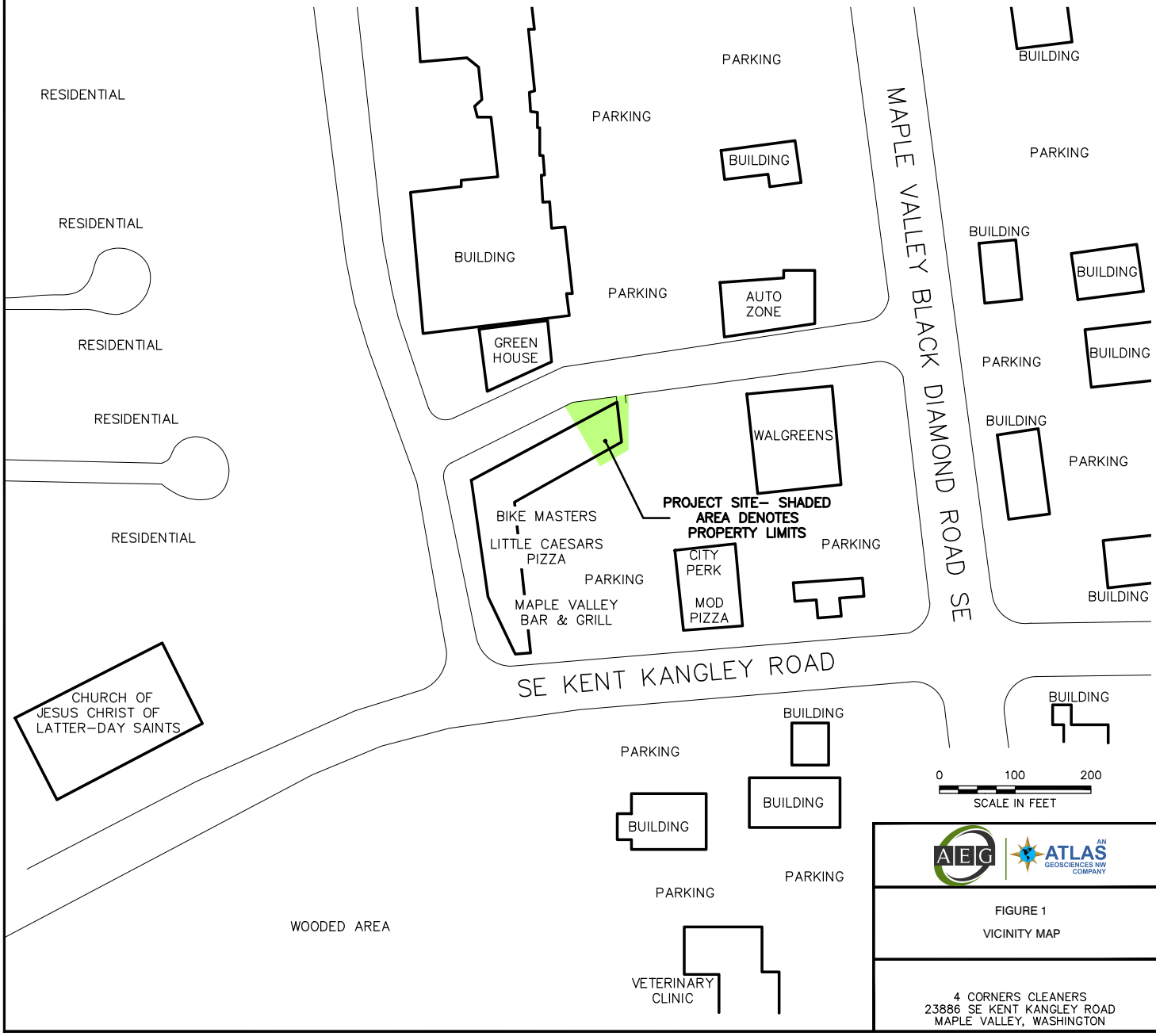


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FIGURE 1
VICINITY MAP

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

FILENAME	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
17-126_WC-SITE-1223.DWG	JGM 12/21/2023	PH 12/21/2023	PH 12/21/2023	17-126

N
W E
S

LEGEND

MW-1	MONITORING WELL LOCATION
B-1	SOIL BORING LOCATION
SV-1	SUB-SLAB VAPOR SAMPLE LOCATION
SVE-1	SOIL VAPOR EXTRACTION WELL LOCATION
VP-1	VAPOR MONITORING POINT LOCATION

NOTES

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REFERENCE

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

0 7 14
SCALE IN FEET

AEG | AN ATLAS GEOSCIENCES NW COMPANY

FIGURE 2

SITE MAP

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

FILENAME	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
17-126_XSECS.DWG	JGM 3/20/2024	PH 3/20/2024	PH 3/20/2024	17-126

N
W E
S

LEGEND

MW-1	MONITORING WELL LOCATION
B-1	SOIL BORING LOCATION
SV-1	SUB-SLAB VAPOR SAMPLE LOCATION
SVE-1	SOIL VAPOR EXTRACTION WELL LOCATION
VP-1	VAPOR MONITORING POINT LOCATION
A A'	LINE OF LITHOLOGIC CROSS SECTION AND PROJECTION LINE TO BORING/WELL
	ESTIMATED EXTENT OF HISTORICAL PCE PLUME IN SOIL

0 7 14
SCALE IN FEET

AEG | AN ATLAS GEOSCIENCES NW COMPANY

FIGURE 3

CROSS-SECTION INDEX MAP AND PCE PLUME IN SOIL

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

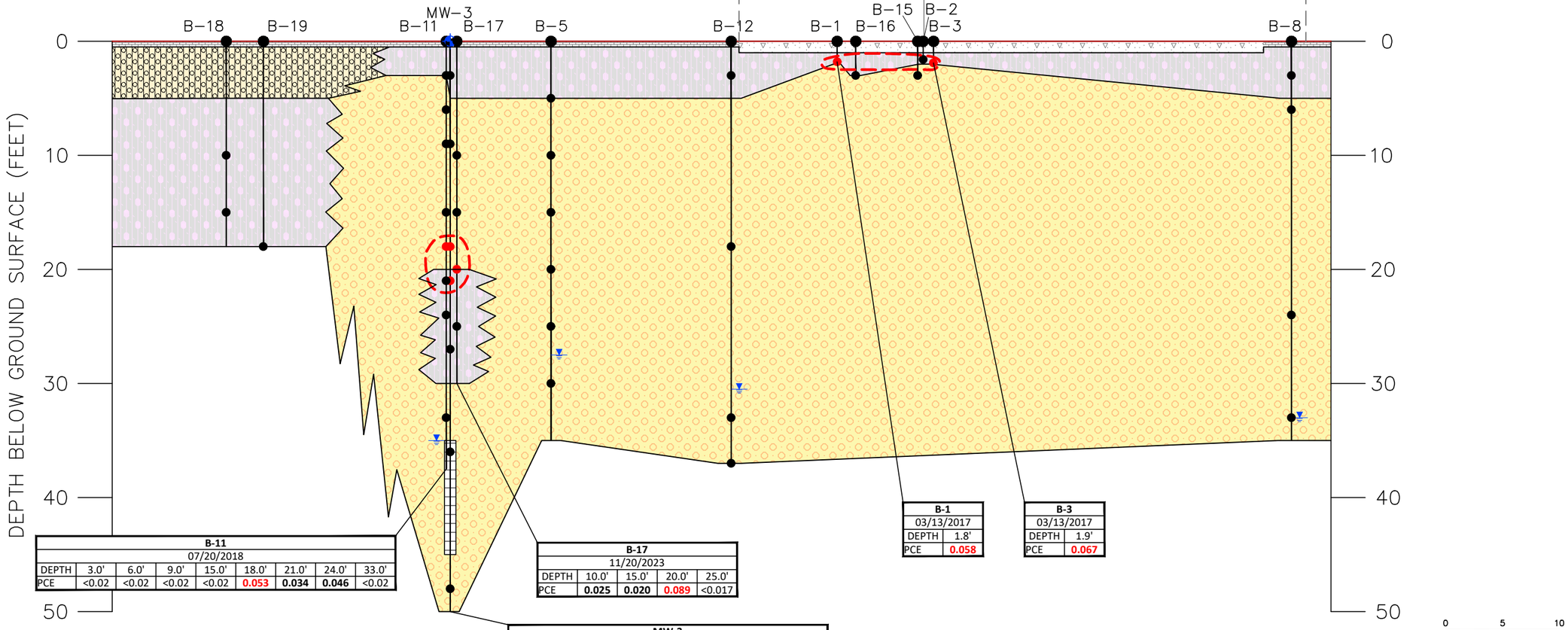
PROJECT NUMBER	17-126
APPROVED BY	PH 3/20/2024
CHECKED BY	PH 3/20/2024
DRAWN BY	JGM 3/20/2024
FILENAME	17-126_XSECS.DWG

NORTHWEST **A**

B–B' LINE

BUILDING

A' SOUTHEAST



B-11								
07/20/2018								
DEPTH	3.0'	6.0'	9.0'	15.0'	18.0'	21.0'	24.0'	33.0'
PCE	<0.02	<0.02	<0.02	<0.02	**0.053**	**0.034**	**0.046**	<0.02

B-17				
11/20/2023				
DEPTH	10.0'	15.0'	20.0'	25.0'
PCE	**0.025**	**0.020**	**0.089**	<0.017

B-1	
03/13/2017	
DEPTH	1.8'
PCE	**0.058**

B-3	
03/13/2017	
DEPTH	1.9'
PCE	**0.067**

MW-3							
05/18/2020							
DEPTH	3.0'	9.0'	18.0'	21.0'	27.0	36.0'	48.0'
PCE	<0.02	<0.02	<0.02	**0.12**	<0.02	<0.02	<0.02
TCE	<0.02	<0.02	**0.31**	<0.02	<0.02	<0.02	<0.02

0 5 10
HORIZONTAL SCALE

0 5 10
VERTICAL SCALE

LEGEND

B–5 MW–3 – SOIL BORING, WELL

– GROUNDWATER LEVEL AT TIME OF DRILLING

– SCREENED INTERVAL

– SOIL SAMPLE LOCATION (< MTCA CLEANUP LEVELS)

– SOIL SAMPLE LOCATION (> MTCA CLEANUP LEVELS)

– MAXIMUM DEPTH EXPLORED

– SOIL CONTACT

ASPHALT

CONCRETE

SM= SILTY SANDS, SAND–SILT MIXTURES

SP= POORLY–GRADED SANDS, GRAVELLY SANDS

GM= SILTY GRAVELS, GRAVEL–SAND–SILT MIXTURES

ESTIMATED EXTENT OF HISTORICAL PCE PLUME IN SOIL

PCE	TETRACHLOROETHENE (mg/kg)
TCE	TRICHLOROETHENE (mg/kg)
<	NOT DETECTED ABOVE LIMIT NOTED
mg/kg	MILLIGRAMS PER KILOGRAM
DP	DEPTH IN FEET

BOLD VALUE INDICATES THE DETECTED CONCENTRATION IS BELOW ECOLOGY MTCA METHOD A CLEANUP LEVELS

RED BOLD VALUE INDICATES THE DETECTED CONCENTRATION EXCEEDS ECOLOGY MTCA METHOD A CLEANUP LEVELS

NOTES

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REFERENCE

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

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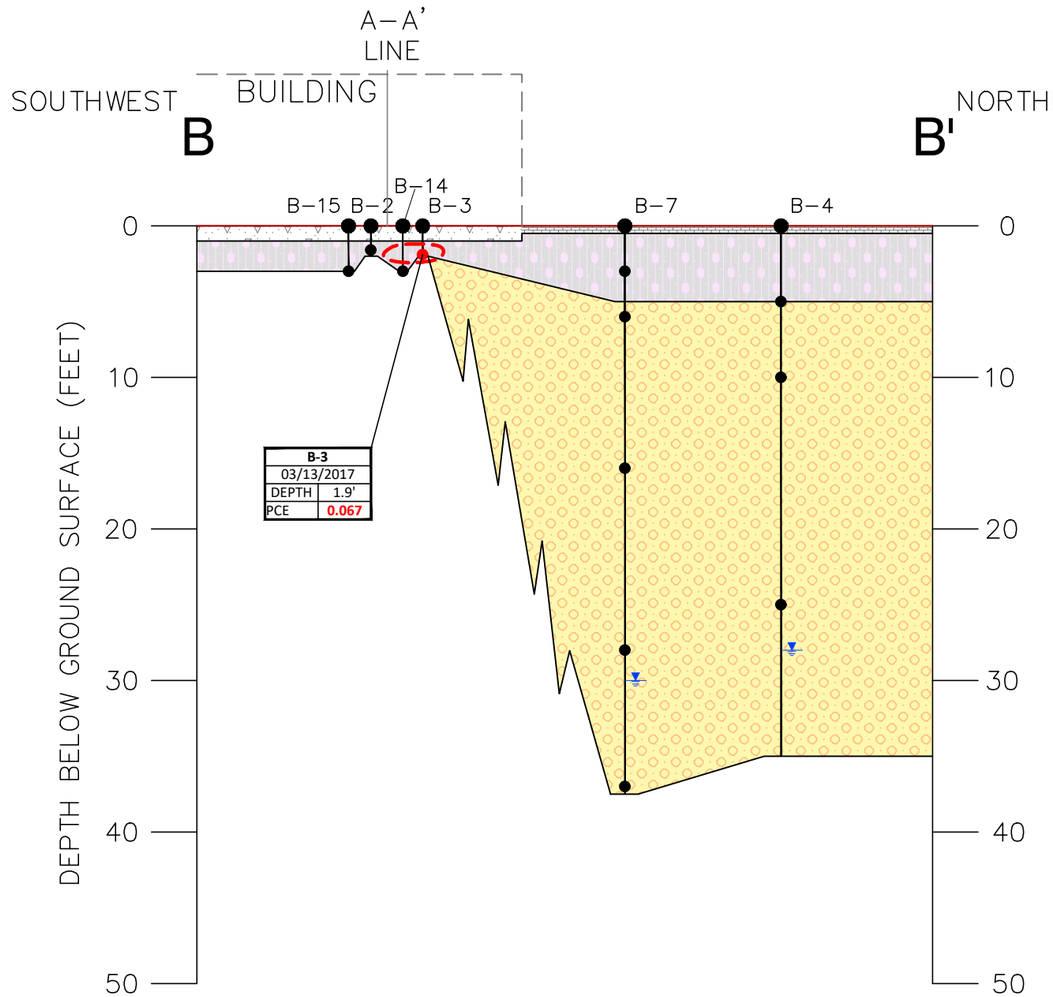
FIGURE 4

CROSS-SECTION A-A'

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

PROJECT NUMBER	17-126
APPROVED BY	PH 3/20/2024
CHECKED BY	PH 3/20/2024
DRAWN BY	JGM 3/20/2024
FILENAME	17-126_XSECS.DWG



LEGEND

B–15 – SOIL BORING

– GROUNDWATER LEVEL AT TIME OF DRILLING

– SCREENED INTERVAL

– SOIL SAMPLE LOCATION (< MTCA CLEANUP LEVELS)

– SOIL SAMPLE LOCATION (> MTCA CLEANUP LEVELS)

– MAXIMUM DEPTH EXPLORED

– SOIL CONTACT

ASPHALT

CONCRETE

SM= SILTY SANDS, SAND–SILT MIXTURES

SP= POORLY–GRADED SANDS, GRAVELLY SANDS

GM= SILTY GRAVELS, GRAVEL–SAND–SILT MIXTURES

ESTIMATED EXTENT OF HISTORICAL PCE PLUME IN SOIL

PCE	TETRACHLOROETHENE (mg/kg)
<	NOT DETECTED ABOVE LIMIT NOTED
mg/kg	MILLIGRAMS PER KILOGRAM
DP	DEPTH IN FEET

BOLD VALUE INDICATES THE DETECTED CONCENTRATION IS BELOW ECOLOGY MTCA METHOD A CLEANUP LEVELS

RED BOLD VALUE INDICATES THE DETECTED CONCENTRATION EXCEEDS ECOLOGY MTCA METHOD A CLEANUP LEVELS

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0 5 10
HORIZONTAL SCALE

0 5 10
VERTICAL SCALE

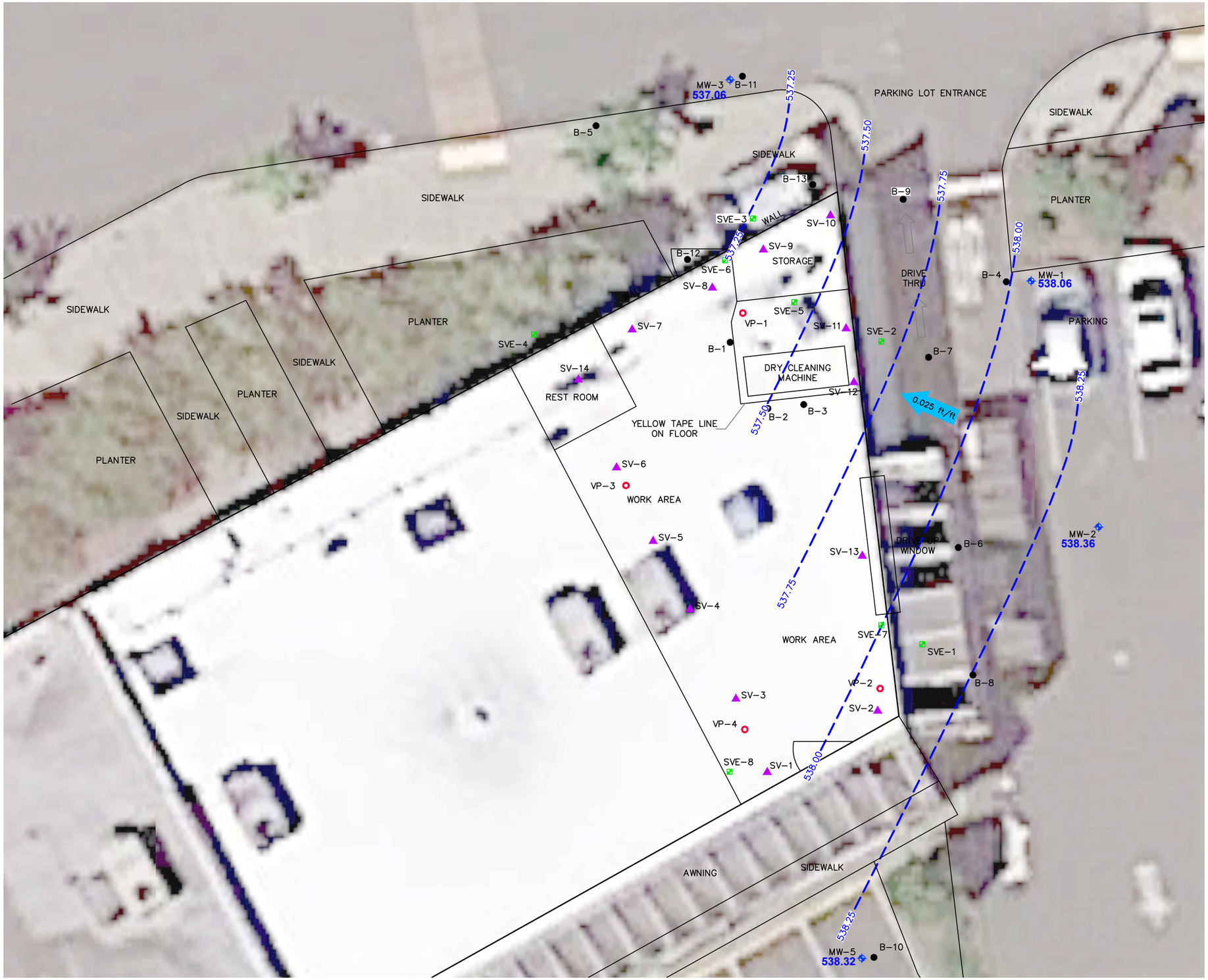
AEG | AN ATLAS GEOSCIENCES NW COMPANY

FIGURE 5

CROSS-SECTION B-B'

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

FILENAME	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
17-126_VIC-SITE.DWG	JGM 8/18/2023	PH 8/18/2023	SR 8/18/2023	17-126



N
W E
S

LEGEND

MW-1	MONITORING WELL LOCATION
B-1	SOIL BORING LOCATION
SV-1	SUB-SLAB VAPOR SAMPLE LOCATION
SVE-1	SOIL VAPOR EXTRACTION WELL LOCATION
VP-1	VAPOR MONITORING POINT LOCATION
538.06	GROUNDWATER ELEVATION (FEET)
542.00	INFERRED GROUNDWATER ELEVATION CONTOUR LINE (FEET)
0.025 ft/ft	APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)

NOTES

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REFERENCE

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

0 5 10
SCALE IN FEET

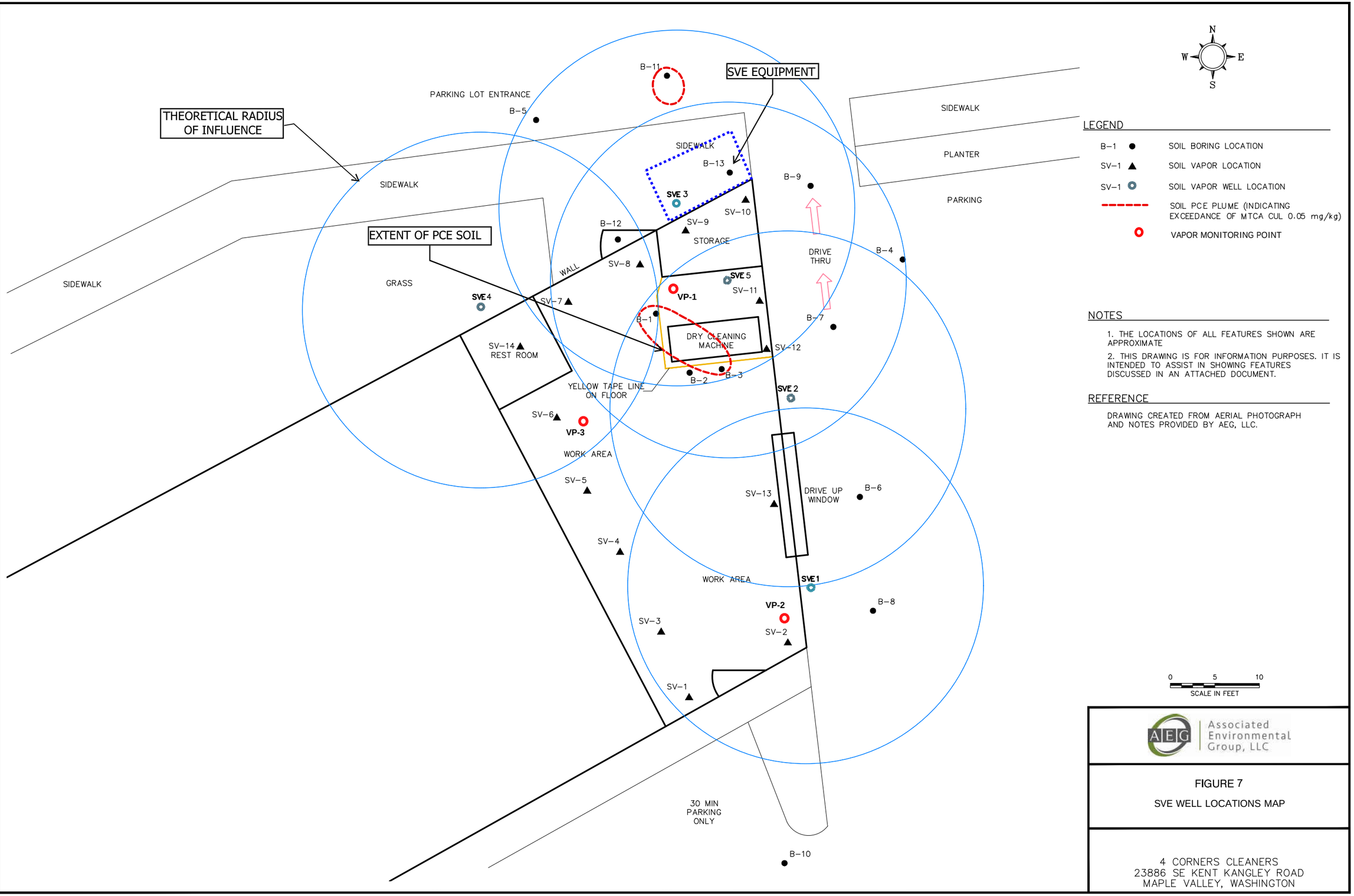
AEG | AN ATLAS GEOSCIENCES NW COMPANY

FIGURE 6

GROUNDWATER ELEVATION CONTOUR MAP
07/07/2023

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

PROJECT NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	FILENAME
17-126	BD 1/21/2019	BD 1/21/2019	ICD 1/21/2019	17-126_1803_1.DWG



LEGEND

- B–1 ● SOIL BORING LOCATION
- SV–1 ▲ SOIL VAPOR LOCATION
- SV–1 ◎ SOIL VAPOR WELL LOCATION
- SOIL PCE PLUME (INDICATING EXCEEDANCE OF MTCA CUL 0.05 mg/kg)
- VAPOR MONITORING POINT

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REFERENCE

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

0 5 10
SCALE IN FEET

Associated Environmental Group, LLC

FIGURE 7

SVE WELL LOCATIONS MAP

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON

PROJECT NUMBER	17-126
APPROVED BY	BD 1/11/2019
CHECKED BY	BD 1/11/2019
DRAWN BY	ICD 1/11/2019
FILENAME	17-126_1803_1.DWG

B-5					
07/17/18					
DP	5.0'	10.0'	15.0'	25.0'	30.0'
PCE	<0.02	<0.02	<0.02	<0.02	<0.02

B-13				
07/23/18				
DP	3.0'	18.0'	35.0'	37.0'
PCE	<0.02	<0.02	<0.02	<0.02

B-11								
07/20/18								
DP	3.0'	6.0'	9.0'	15.0'	18.0'	21.0'	24.0'	33.0'
PCE	<0.02	<0.02	<0.02	<0.02	**0.053**	**0.034**	**0.046**	<0.02

B-12				
07/23/18				
DP	3.0'	18.0'	33.0'	37.0'
PCE	<0.02	<0.02	<0.02	<0.02

B-1	
03/13/17	
DP	1.8'
PCE	**0.058**

B-2	
03/13/17	
DP	1.6'
PCE	**0.044**

B-9					
07/19/18					
DP	3.0'	9.0'	15.0'	24.0'	33.0'
PCE	<0.02	<0.02	<0.02	<0.02	<0.02

B-4			
07/17/18			
DP	5.0'	10.0'	25.0'
PCE	<0.02	<0.02	<0.02

B-7					
07/18/18					
DP	3.0'	6.0'	16.0'	28.0'	37.0'
PCE	<0.02	<0.02	<0.02	<0.02	<0.02

B-3	
03/13/17	
DP	1.9'
PCE	**0.067**

B-6				
07/18/18				
DP	5.0'	10.0'	25.0'	35.0'
PCE	<0.02	<0.02	<0.02	<0.02

B-8				
07/19/18				
DP	3.0'	6.0'	24.0'	33.0'
PCE	<0.02	<0.02	<0.02	<0.02

B-10					
07/20/18					
DP	3.0'	6.0'	15.0'	27.0'	33.0'
PCE	<0.02	<0.02	<0.02	<0.02	<0.02

PARKING LOT ENTRANCE
SIDEWALK
SIDEWALK
SIDEWALK
GRASS
WALL
WALL
STORAGE
DRIVE THRU
PARKING
DRY CLEANING MACHINE
REST ROOM
YELLOW TAPE LINE ON FLOOR
WORK AREA
WORK AREA
DRIVE UP WINDOW
30 MIN PARKING ONLY
B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10
B-11
B-12
B-13
SV-1
SV-2
SV-3
SV-4
SV-5
SV-6
SV-7
SV-8
SV-9
SV-10
SV-11
SV-12
SV-13
SV-14

N
W
E
S

LEGEND

B-1 ●	SOIL BORING LOCATION
SV-1 ▲	SOIL VAPOR LOCATION
PCE	TETRACHLOROETHENE (mg/kg)
- - - - -	SOIL PCE PLUME (INDICATING EXCEEDANCE OF MTCA CUL 0.05 mg/kg)
<	NOT DETECTED ABOVE LIMIT NOTED
mg/kg	MILLIGRAMS PER KILOGRAM
DP	DEPTH IN FEET

BOLD VALUE INDICATES THE DETECTED CONCENTRATION IS BELOW ECOLOGY MTCA METHOD A CLEANUP LEVELS

RED BOLD VALUE INDICATES THE DETECTED CONCENTRATION EXCEEDS ECOLOGY MTCA METHOD A CLEANUP LEVELS

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.

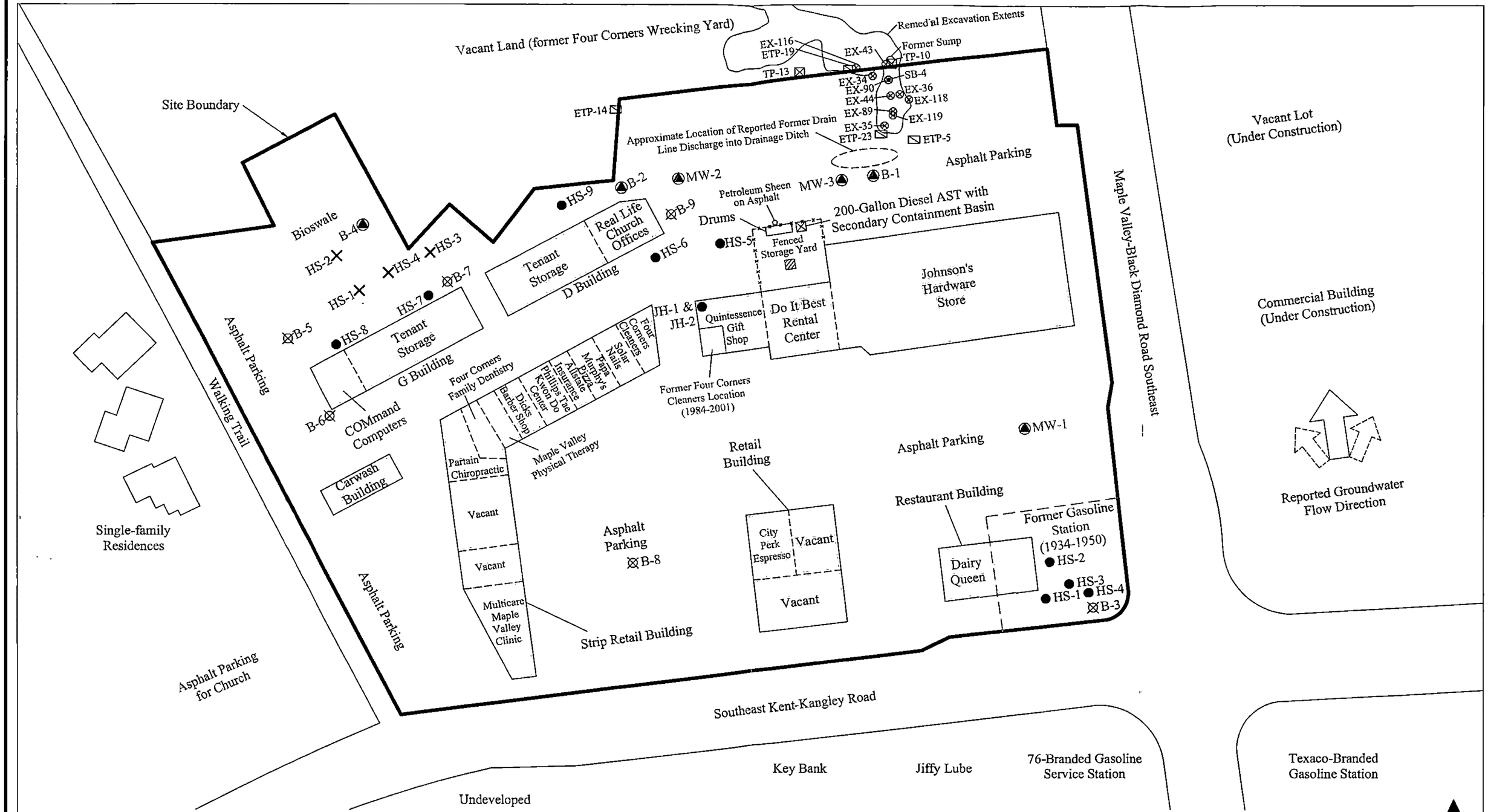
0 5 10
SCALE IN FEET

Associated Environmental Group, LLC

FIGURE 8

PCE IN SOIL PLUME MAP

4 CORNERS CLEANERS
23886 SE KENT KANGLEY ROAD
MAPLE VALLEY, WASHINGTON



▨ = Catch Basin with Oil-Water Separator

B-1 = Former Monitoring Well (4/89 to 10/08) Historical Elevated Diesel- and Oil-Range TPH Detections

MW-1 = Groundwater Monitoring Well Installed by RGI (11/04)

⊠ = RGI Test Pit (08/03)

● = Hollow Stem Auger & Hand Auger Soil Boring Locations by RGI

× = Hand Auger Locations

⊠ = Approximate Soil Boring Location (04/89)

⊗ = EFI Remedial Excavation Soil Confirmation Sample (06/06 & 09/06)

▨ = EFI Test Pit (01/06)

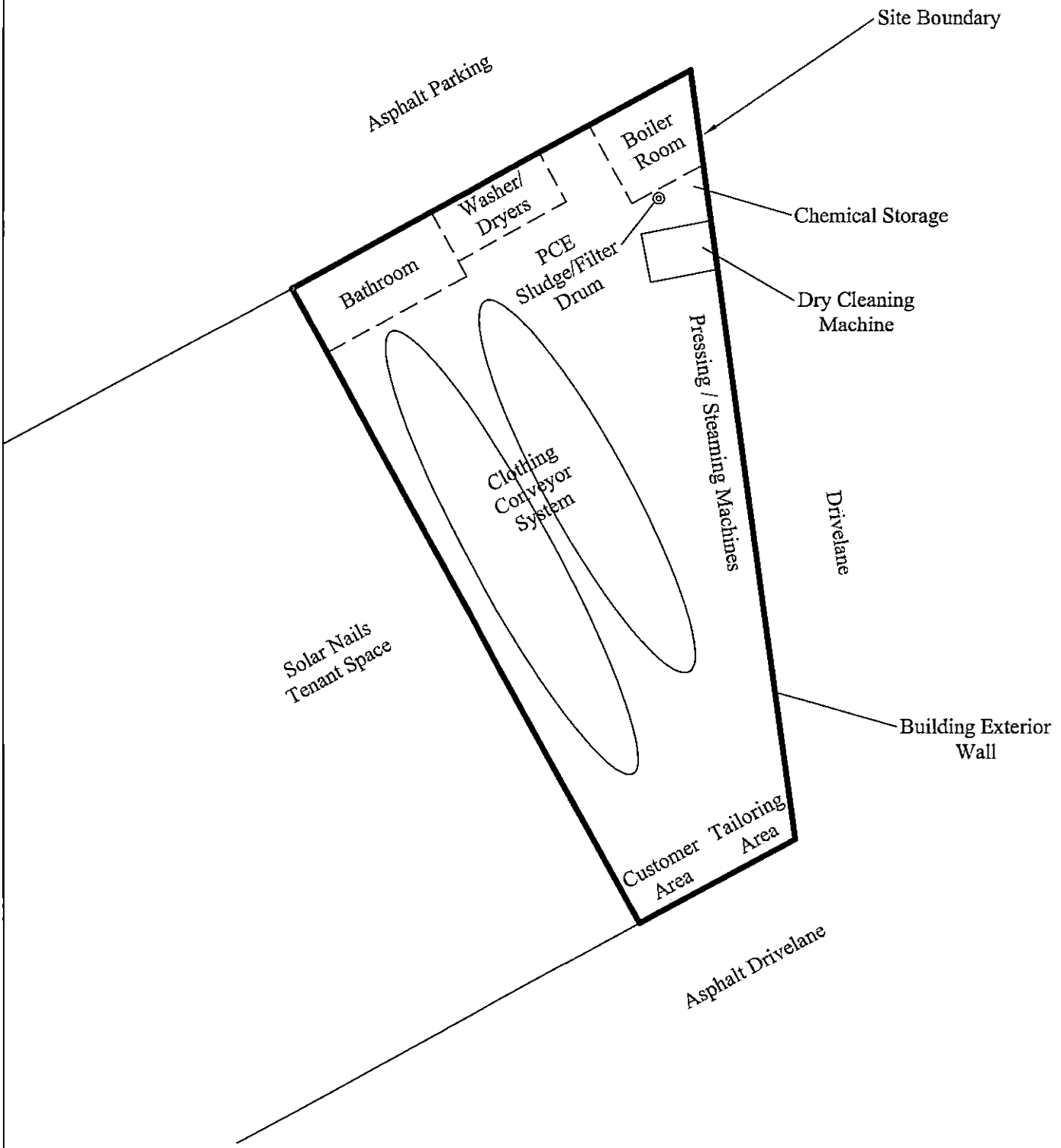
SB-4 ◉ = EFI Soil Boring (01/06)

Approximate Scale: 1"=80'

0 40 80 160

The Riley Group, Inc.
7406 - 27th Street West, Suite 301
University Place, Washington 98466
Phone: 253.565.0552 ♦ Fax: 253.460.2981

Four Corners Square		Figure 9
RGI Project Number 2012-205	Site and Surrounding Area	Date Drawn: 05/2012
Address: 23800 to 23926 SE Kent-Kangley Road, Maple Valley, WA		



Approximate Scale: 1"=10'

0 5 10 20

N

The Riley Group, Inc.
7406 - 27th Street West, Suite 301
University Place, Washington 98466
Phone: 253.565.0552 ♦ Fax: 253.460.2981

Four Corners Cleaners		Figure 10
RGI Project Number 2003-165E	Drycleaner Interior	Date Drawn: 12/2010
Address: 23886 SE Kent-Kangley Road, Maple Valley, Washington		

Enclosure B

Basis for the Opinion: List of Documents

Documents List

1. The Riley Group, *Phase I Environmental Site Assessment*, September 30, 2003
2. The Riley Group, *Supplemental Phase II Subsurface Investigation*, December 7, 2004
3. The Riley Group, *Limited Phase II Subsurface Investigation*, July 20, 2012
4. Associated Environmental Group (AEG), *Phase II Environmental Site Assessment*, April 21, 2017
5. AEG, *Remedial Investigation/Feasibility Study Report*, March 14, 2019
6. AEG, *Cleanup Action Plan*, May 29, 2019
7. AEG, *Technical Memorandum – Soil Vapor System (SVE) System Installation*, December 20, 2019
8. AEG, *Technical Memorandum – SVE System O&M and Performance Monitoring*, February 19, 2020
9. AEG, *December 2020 Compliance Quarterly Groundwater Monitoring and SVE O&M Report*, January 19, 2021.
10. AEG, *Technical Memorandum – Cleanup Progress Report*, January 3, 2022
11. AEG, *Technical Memorandum – Cleanup Progress Report*, August 24, 2023
12. AEG, *Site Closure Report*, July 24, 2024

Enclosure C

Earlier Site Characterization

Between April 1989 and November 1994, one existing borehole was sampled once and a second borehole was sampled four times, with all five grab-groundwater samples analyzed for benzene, ethylbenzene, toluene, xylene, and halogenated volatile organic compounds. Each borehole was sampled once for diesel.

In 1989, one well had detections of all five analytes. The other well had a detection of diesel but no other analytes. In the three subsequent rounds, the samples from a single borehole were analyzed for benzene, ethylbenzene, toluene, xylene, and halogenated volatile organic compounds. In all three rounds, there were no detections of any analyte.

Table 1. Groundwater Samples – 1989

Contaminant	**MTCA Method A/B Cleanup Level** (µg/l)	**Maximum Concentration** (µg/l)	**Number of Exceedances/ Number of Samples**	**Number of Detections/ Number of Samples**
Diesel	500	4,000	2/2	2/2
Benzene	5	6.1	1/5	1/5
Ethylbenzene	700	2.7	0/5	1/5
Toluene	1,000	95	0/5	1/5
Xylene	1,000	230	0/5	1/5
tetrachloroethene	5	2	0/5	1/5

In November 2004, fifteen soil borings were installed on-Site; soil vapor samples were collected from two of the borings. Three groundwater monitoring wells were installed on-Site. Twenty-nine soil samples were collected and analyzed for various combinations of gasoline, diesel, oil, volatile organic compounds, 1,2-dichloroethene, trichloroethene, and tetrachloroethene.

Six samples were analyzed by hydrocarbon identification for gasoline, diesel, and oil. There were no detections of any analyte in any sample. Three samples were analyzed for volatile organic compounds. There were no detections of any analyte in any sample. Nine samples were analyzed for diesel. There were no detections of diesel in any sample. Five groundwater samples were collected from the three new wells and two existing wells and analyzed for gasoline, diesel, benzene, ethylbenzene, toluene, xylene, and halogenated volatile organic compounds. Halogenated volatile organic compounds were not detected in any sample. The soil vapor samples were specific to the original location of the drycleaners, not the new location, and are not reported here.

Table 2. Soil Samples – November 2004

Contaminant	MTCA Method A/B Cleanup Level (mg/kg)	Maximum Concentration (mg/kg)	Number of Exceedances/ Number of Samples	Number of Detections/ Number of Samples
Oil	2,000	360	0/9	7/9
Tetrachloroethene	0.05	0.047	0/8	4/8
Trichloroethene	0.03	0.0019	0/8	1/8
Cis 1,2-dichloroethene	160	0.013	0/8	1/8

Table 3. Groundwater Samples – November 2004

Contaminant	MTCA Method A/B Cleanup Level (µg/l)	Maximum Concentration (µg/l)	Number of Exceedances/ Number of Samples	Number of Detections/ Number of Samples
Gasoline	1.000	None	0/5	0/5
Diesel	500	4,100	1/5	1/5
Benzene	5	None	0/5	0/5
Ethylbenzene	700	None	0/5	0/5
Toluene	1,000	None	0/5	0/5
Xylene	1,000	None	0/5	0/5

Note – the data through November 2004 is for the property as a whole. It is not specific to the new location of the drycleaners.

In July 2012, three soil borings and two soil vapor probes were installed on-Site. Twenty soil samples were collected, with 16 samples analyzed for tetrachloroethene, trichloroethene, cis 1,2-dichloroethene, trans 1,2-dichloroethene, and vinyl chloride. There were no detections of any analyte in any sample. Three groundwater grab samples were collected from the three soil borings and analyzed for the same analytes. There were no detections of any analyte in any sample. One soil gas sample was collected from inside the dry cleaners and analyzed for the same analytes.

Table 4. Soil Vapor Samples – July 2012

Contaminant	MTCA Method A/B Screening Level ($\mu g/m^3$)	Maximum Concentration ($\mu g/m^3$)	Number of Exceedances/ Number of Samples	Number of Detections/ Number of Samples
Tetrachloroethene	320	1,000	1/1	1/1
Trichloroethene	11	11	0/1	1/1
Cis 1,2-dichloroethene	610	none	0/1	0/1
Trans 1,2-dichloroethene	610	none	0/1	0/1
Vinyl chloride	9.5	none	0/1	0/1

Note – dichlorodifluoromethane, chloroform, and 1,1,2-trichloroethane were not detected in the sample. Laboratory report not available.