

January 19, 2021

Mr. Chang Kim
23886 SE Kent-Kangley Road
Maple Valley, Washington 98038-6848

RE: ***December 2020 Compliance Quarterly Groundwater Monitoring & SVE O&M Report***
4 Corners Cleaners
23866 SE Kent-Kangley Road
Maple Valley, Washington 98038-6848
VCP ID No.: NW3234

Dear Mr. Kim:

Associated Environmental Group, LLC (AEG) has prepared the enclosed report presenting a summary of results for the groundwater sampling event conducted on December 11, 2020 and soil vapor extraction (SVE) system operations and maintenance (O&M) activities, at *4 Corners Cleaners* in Maple Valley, Washington (Site). The Site and surrounding area are detailed in Figure 1, *Vicinity Map*. Well locations are illustrated on Figure 2, *Groundwater Elevation Contour Map 12/11/2020*.

WORK PERFORMED THIS QUARTER [December 11 and 17, 2020]:

- Obtained depth to groundwater data in four groundwater wells (MW-1, MW-2, MW-3, and MW-5).
- Purged and sampled four groundwater monitoring well (MW-1, MW-2, MW-3, and MW-5).
- Collected outlet vapors from the active remediation system, along with operating and field parameters of the mechanical equipment to monitor the effectiveness of the SVE system.

WORK PROPOSED NEXT QUARTER [March 2021]:

- Obtain depth to groundwater data in four groundwater wells (MW-1, MW-2, MW-3, and MW-5).
- Purge and sample four groundwater monitoring well (MW-1, MW-2, MW-3, and MW-5).
- Ongoing O&M activities to optimize SVE performance.

GROUNDWATER MONITORING SUMMARY

Sampling Event:	December 11, 2020	Values
Range of Depths to Groundwater:	19.75 to 22.22	Feet below top of well casing (Table 2, <i>Summary of Groundwater Elevations</i>)
Range of Groundwater Elevations:	541.66 to 542.97	Feet above Mean Sea Level (Table 2, <i>Summary of Groundwater Elevations</i>)
Groundwater Gradient: (Direction / Magnitude)	Northwest / 0.02	Feet per foot (ft/ft), determined using data from MW-1, MW-2, MW-3, and MW-5
Measurable NAPL Detected:	No	
Measurable NAPL Thickness:	N/A	
Current Remedial Action:	Active Remediation	SVE

GROUNDWATER DISCUSSION

The calculated groundwater gradient for the December 2020 sampling event is 0.02 feet per foot to the northwest as illustrated on Figure 2, *Groundwater Elevation Contour Map 12/11/2020*. A summary of groundwater elevations is presented as Table 1, *Summary of Groundwater Elevations*.

No constituents of concern were detected in groundwater samples above the laboratory detection limits for monitoring wells MW-1, MW-2, MW-3, or MW-5. Analytical results for this sampling event are presented in Table 2, *Summary of Groundwater Analytical Results*.

SVE SYSTEM PERFORMANCE

Sub-slab vapor samples were collected on December 17, 2020 from all four vapor monitoring points (VP-1 through VP-4). As shown in Table 3, *Summary of Sub-Slab Vapor Analytical Results*, the air sample results indicate that PCE was present in vapor monitoring point VP-1 at 420 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), at VP-3 at 690 $\mu\text{g}/\text{m}^3$, and at VP-4 at 400 $\mu\text{g}/\text{m}^3$, which are all above the MTCA Method B sub-slab screening level of 321 $\mu\text{g}/\text{m}^3$ for PCE.

The SVE system shut down on December 8, 2020 and was started on December 17, 2020. From the startup date of October 9, 2019, the SVE system had three shutdown events: October 22, 2019, December 17, 2019, and December 8, 2020 for a total of 16 days. These events were all caused by high water in the moisture knockout tank. AEG restarted the system after the alarms were cleared and the system vacuum was adjusted after the system was initiated.

The carbon filtration was removed from the system in January 2020 and the performance sample location has been the effluent air from the vacuum system stack output sample port. A 10-minute Summa canister sample was collected to evaluate compliance with the Puget Sound Clean Air Agency (PSCAA) maximum allowable emission rates. PCE and TCE constituents were detected at $23 \mu\text{g}/\text{m}^3$ and $0.71 \mu\text{g}/\text{m}^3$ respectively, in the exhaust air sample analysis from December 17, 2020. The potential to emit (PTE) toxic constituents are shown on Table 4, *Potential to Emit Summary*. Results from the air sampling are presented in Appendix A, Supporting Documents, *Laboratory Datasheets*. Approximately 0.72 pounds of halogenated volatile organic compounds (HVOCs) have been removed in vapor phase from the Site to date.

To monitor efficacy of the applied vacuum to reach beneath the tenant space, the pressure differential beneath the slab is measured at the four permanent sub-slab monitoring points (VP-1 through VP-4). On December 17, 2020, the vacuum readings were measured and compared to ambient indoor air pressure (Humidity: 62% & Barometer: 29.99 inches of mercury) to evaluate the system's vacuum radius of influence. A vacuum reading indicates a negative differential pressure is being generated underneath the building slab around the extraction points, as compared to indoor air or ambient pressure. One sampling port (VP-1) within the tenant space measured vacuum at 0.03 inches of water (inches W.C.), which meets or exceeds the pressure reduction goal of 0.02 inches of water proposed in EPA guidance (EPA 2008). Vacuum monitoring point locations are illustrated on Figure 2, *Groundwater Elevation Contour Map 12/11/2020*. The response to applied vacuum is shown on Table 5, *Applied Vacuum Response Monitoring*.

AEG had restarted the SVE system on December 17, 2020 after removing approximately 12 gallons of condensate. The system was allowed to equilibrate for one hour and, at the time of monitoring SVE-5 (located inside the building), was surging water indicating the sub-slab foundation gravels were full of water. AEG removed an additional 5 gallons of water from the condensate collection tank and left the system operating.

On December 17, 2020, the SVE system was left operating at 50 inches of water column (W.C.) applied vacuum. This vacuum was adjusted using fresh air dilution to unload the blower and to reduce the amount of water removed as condensate. The total system vacuum was adjusted to operate SVE wells SVE-1, SVE-3, SVE-4, and SVE-5 to increase the removal rates near monitoring points VP-3 and VP-1.

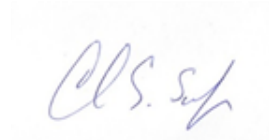
CLOSING:

AEG has completed this monitoring event at the Site. AEG recommends continued operation of the SVE system and a review of the monthly O&M data to make adjustments, as needed, to enhance system performance.

Continued groundwater sampling of monitoring wells MW-1, MW-2, MW-3, and MW-5 is also recommended for at least one additional consecutive quarter to document any seasonal variation in contaminant concentrations at the Site and to evaluate Ecology's questions about a potential impact to the groundwater at the Site. Should you have questions or require additional information, please contact our office at 360-352-9835.

Sincerely,

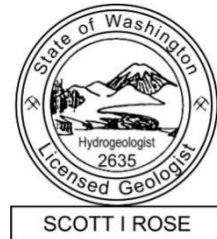
Associated Environmental Group, LLC



Charles Swift, R.S.A.
Project Manager



Scott Rose, L.H.G.
Senior Hydrogeologist



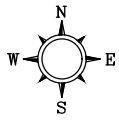
Attachments: Figure 1 – *Vicinity Map*
Figure 2 – *Groundwater Elevation Contour Map 12/11/2020*

Table 1 – *Summary of Groundwater Elevations*
Table 2 – *Summary of Groundwater Analytical Results*
Table 3 – *Summary of Sub-Slab Vapor Analytical Results*
Table 4 – *Potential to Emit Summary*
Table 5 – *Applied Vacuum Response Monitoring*

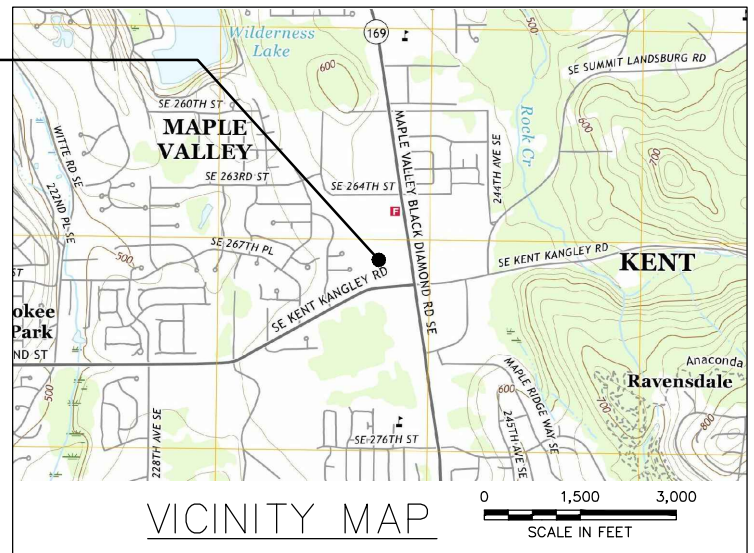
Appendix A – *Supporting Documents*
Laboratory Datasheets

FIGURES

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



PROJECT LOCATION

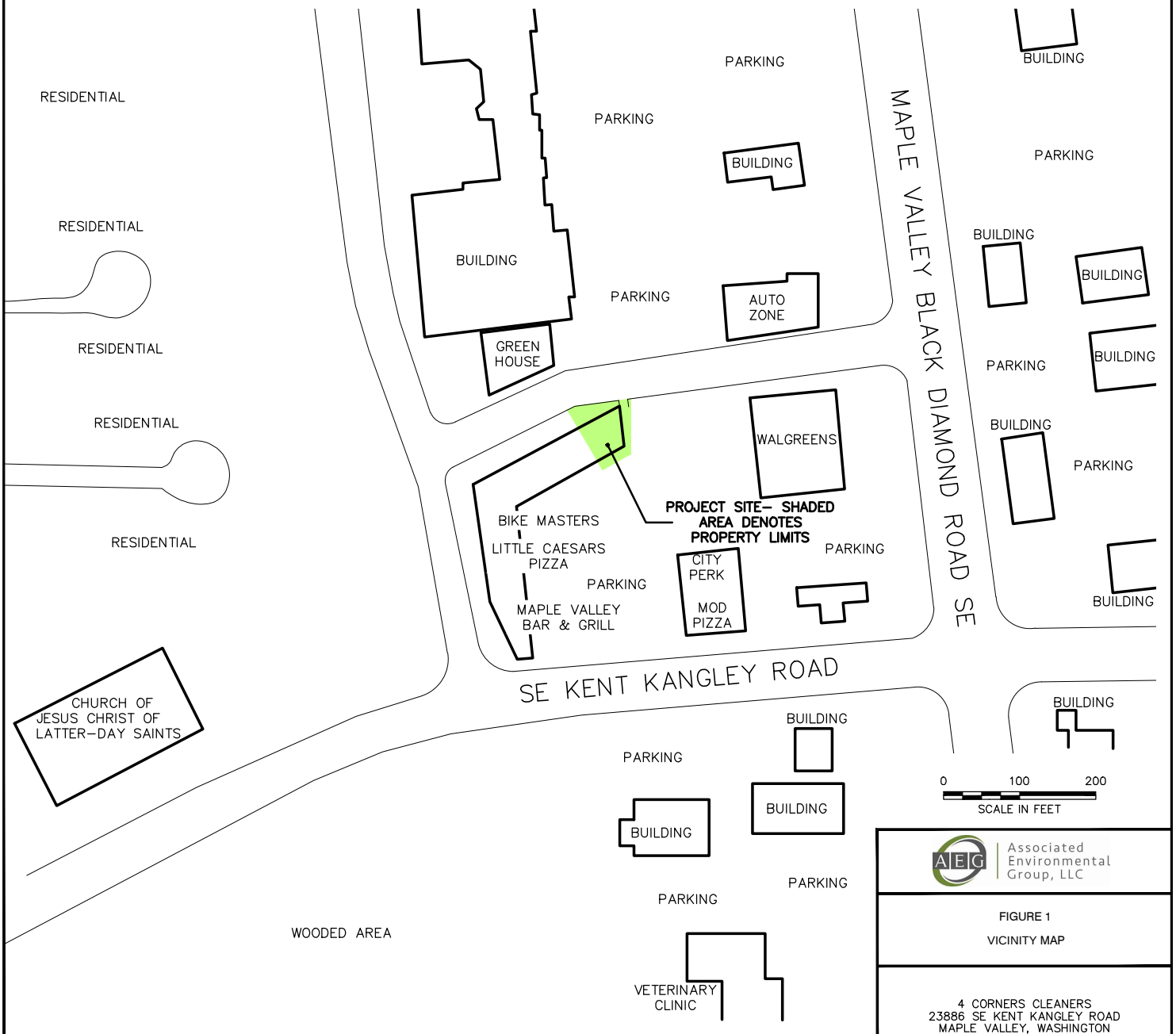


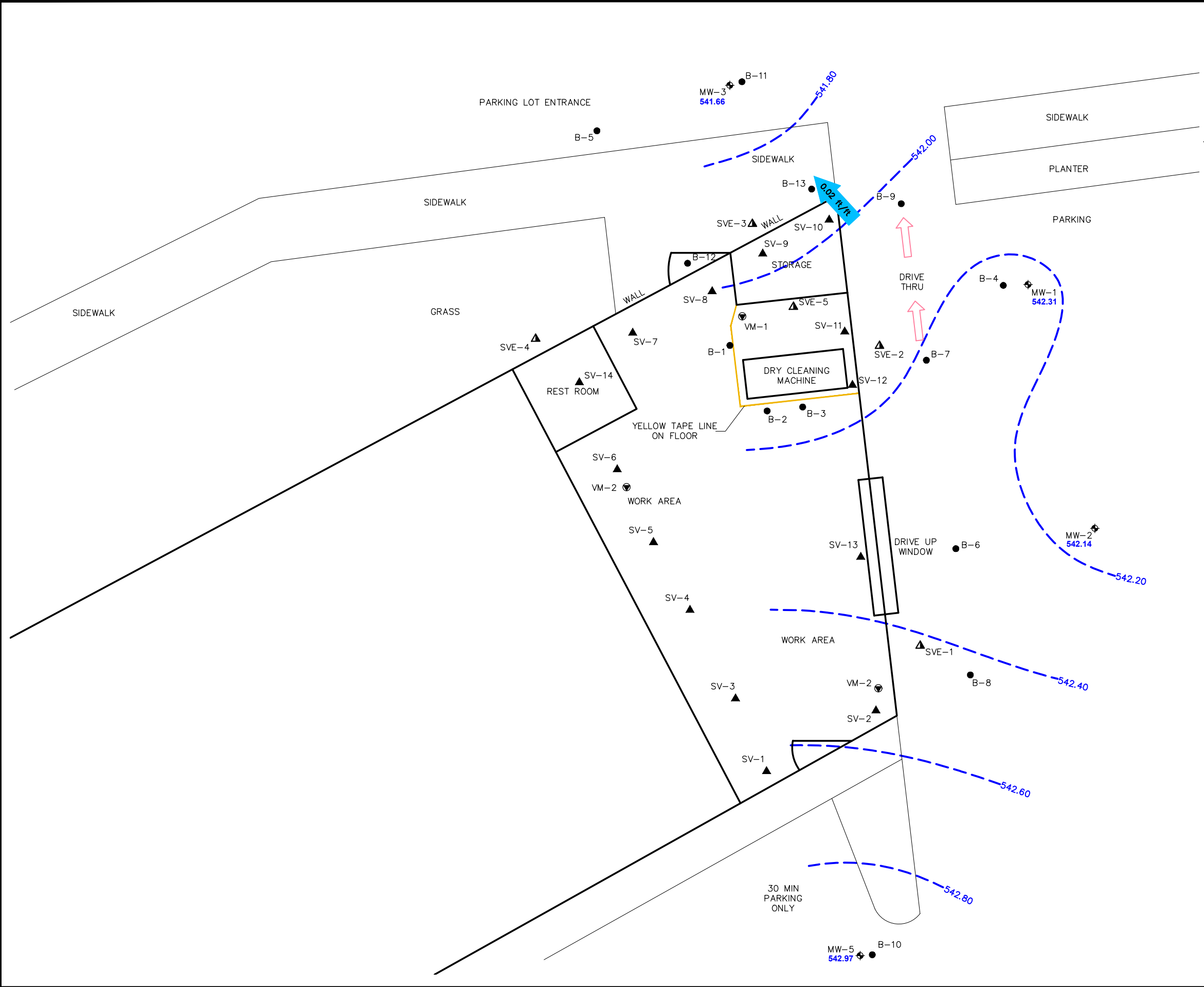
NOTES

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





N

W

E

S

LEGEND

MW-1

MONITORING WELL LOCATION

B-1

SOIL BORING LOCATION

SV-1

SOIL VAPOR LOCATION

SVE-1

SOIL VAPOR WELL LOCATION

VM-1

VAPOR MONITORING WELL LOCATION

542.31

GROUNDWATER ELEVATION (FEET)

542.00

INFERRED GROUNDWATER ELEVATION CONTOUR LINE (FEET)

0.02 ft/ft

CONTOUR INTERVAL=0.20 FEET

APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)

NOTES

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AEG

Associated Environmental Group, LLC

FIGURE 2

GROUNDWATER ELEVATION CONTOUR MAP

12/11/2020

4 CORNERS CLEANERS

23886 SE KENT KANGLEY ROAD

MAPLE VALLEY, WASHINGTON

0

5

10

SCALE IN FEET

TABLES

Table 1 - Summary of Groundwater Elevations
4 Corners Cleaners (17-126)
Maple Valley, Washington

Well No./ TOC Elevation	Date	Depth to Water	Depth to Free Product	Free Product Thickness	Actual Groundwater Elevation	Change in Elevation
MW-1	6/23/2020	22.67	--	--	540.04	--
562.71	9/14/2020	28.97	--	--	533.74	-6.30
	12/11/2020	20.40	--	--	542.31	8.57
MW-2	6/23/2020	22.04	--	--	540.35	--
562.39	9/14/2020	28.29	--	--	534.10	-6.25
	12/11/2020	20.25	--	--	542.14	8.04
MW-3	6/23/2020	24.82	--	--	539.06	--
563.88	9/14/2020	31.08	--	--	532.80	-6.26
	12/11/2020	22.22	--	--	541.66	8.86
MW-5	6/23/2020	22.22	--	--	540.50	--
562.72	9/14/2020	28.60	--	--	534.12	-6.38
	12/11/2020	19.75	--	--	542.97	8.85

Notes:

All values reported in feet

TOC = Top of casing elevation relative to assigned benchmark.

-- = Not measured, not available, or not applicable

Table 2 - Summary of Groundwater Analytical Results

4 Corners Cleaners (17-126)

Maple Valley, Washington

Sample Number	Date Collected	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
Boring Groundwater Data						
B4-W	7/17/2018	<1.0	<1.0	<1.0	<1.0	<0.2
B5-W	7/17/2018	<1.0	<1.0	<1.0	<1.0	<0.2
B6-W	7/18/2018	<1.0	<1.0	<1.0	<1.0	<0.2
B7-W	7/18/2018	<1.0	<1.0	<1.0	<1.0	<0.2
B8-W	7/19/2018	<1.0	<1.0	<1.0	<1.0	<0.2
B9-W	7/19/2018	<1.0	<1.0	<1.0	<1.0	<0.2
Monitoring Well Groundwater Data¹						
MW-1	6/23/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	9/14/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	12/11/2020	<1.0	<0.4	<1.0	<1.0	<0.2
MW-2	6/23/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	9/14/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	12/11/2020	<1.0	<0.4	<1.0	<1.0	<0.2
MW-3	6/23/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	9/14/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	12/11/2020	<1.0	<0.4	<1.0	<1.0	<0.2
MW-5	6/23/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	9/14/2020	<1.0	<0.4	<1.0	<1.0	<0.2
	12/11/2020	<1.0	<0.4	<1.0	<1.0	<0.2
PQL		1.0	0.4/1.0	1.0	1.0	0.2
MTCA Method A Cleanup Levels		5.0	5.0	160*	16*	0.2

Notes:

All values present are micrograms per liter (µg/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

PCE = Tetrachloroethene

TCE = Trichloroethene

DCE = Dichloroethene

¹Refusal was consistently encountered throughout the area proposed for well MW-4; it was never installed.

* MTCA Method B cleanup level; Method A cleanup level not established

Table 3 - Summary of Sub-Slab Vapor Analytical Results
4 Corners Cleaners
Maple Valley, Washington

Sample Number	Depth Collected (feet)	Date Collected	PCE and Daughter Products					Other Detected Volatile Organic Compounds		
			PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Chloroform	Dichloro-difluoromethane	1,1,2-Trichloroethane
SV-1	SUB-SLAB	3/31/2017	1,600	<10	<10	<10	<10	<10	<10	<10
SV-2	SUB-SLAB	3/31/2017	1,800	<10	<10	<10	<10	<10	8,600	<10
SV-3	SUB-SLAB	3/31/2017	1,500	<10	<10	<10	<10	<10	12,000	<10
SV-4	SUB-SLAB	3/31/2017	790	<10	<10	<10	<10	<10	15,000	<10
SV-5	SUB-SLAB	3/31/2017	940	<10	<10	<10	<10	<10	8,200	<10
SV-6	SUB-SLAB	3/31/2017	850	<10	<10	<10	<10	<10	7,200	<10
SV-7	SUB-SLAB	3/31/2017	1,700	<10	<10	<10	<10	<10	870	<10
SV-8	SUB-SLAB	3/31/2017	1,100	<10	<10	<10	<10	<10	290	<10
SV-9	SUB-SLAB	3/31/2017	2,800	<10	<10	<10	<10	310	2,500	<10
SV-10	SUB-SLAB	3/31/2017	2,100	<10	<10	<10	<10	31,000	3,100	380
SV-11	SUB-SLAB	3/31/2017	6,300	<10	<10	<10	<10	<10	2,800	<10
SV-12	SUB-SLAB	3/31/2017	2,600	<10	<10	<10	<10	<10	3,400	<10
SV-13	SUB-SLAB	3/31/2017	180	<10	<10	<10	<10	<10	9,000	<10
SV-14	SUB-SLAB	3/31/2017	2,600	<10	<10	<10	<10	<10	610	<10
SVE SYSTEM STARTUP OCTOBER 9, 2019										
VP-1 ¹	SUB-SLAB	10/9/2019	586	4.48	<0.793	<0.793	<0.511	--	--	--
		12/16/2019	4.03	1.95	<0.793	<0.793	<0.511	--	--	--
		1/16/2020	264E	3.18	<0.793	<0.793	<0.511	--	--	--
		2/25/2020	198	3.92	<0.793	<0.793	<0.511	--	--	--
		3/16/2020	270	3.7	<2.7	<2.7	<1.7	--	--	--
		5/20/2020	570	4.3	<5.6	<5.6	<3.6	--	--	--
		7/8/2020	580	4.6	<2.8	<2.8	<1.8	--	--	--
		8/26/2020	42	<1.0	<1.5	<1.5	<0.97	--	--	<0.41
		9/16/2020	<45	<0.71	<2.6	<2.6	<1.7	--	--	<0.36
		12/17/2020	420	2.7	<8.3	<8.3	<5.4	--	--	<1.1
VP-2 ¹	SUB-SLAB	10/9/2019	<2.03	<1.07	<0.793	<0.793	<0.511	--	--	--
		12/16/2019	4.77	<1.07	<0.793	<0.793	<0.511	--	--	--
		1/16/2020	101	1.49	<0.793	<0.793	<0.511	--	--	--
		2/25/2020	72	<1.07	<0.793	<0.793	<0.511	--	--	--
		3/16/2020	66	<1.07	<2.7	<2.7	<1.7	--	--	--
		5/20/2020	230	<1.8	<2.7	<2.7	<1.7	--	--	--
		7/8/2020	170	<1.9	<2.8	<2.8	<1.8	--	--	--
		8/26/2020	120	<2.7	<4	<4	<2.6	--	--	<5.5
		9/16/2020	<44	<0.7	<2.6	<2.6	<1.7	--	--	<0.35
		12/17/2020	87	<1.1	<4.0	<4	<2.6	--	--	<0.55
VP-3 ¹	SUB-SLAB	10/9/2019	743	1.32	<0.793	<0.793	<0.511	--	--	--
		12/16/2019	2.53	<1.07	<0.793	<0.793	<0.511	--	--	--
		1/16/2020	423	<1.07	<0.793	<0.793	<0.511	--	--	--
		2/25/2020	457	1.13	<0.793	<0.793	<0.511	--	--	--
		3/16/2020	960	<9.4	<14	<14	<8.9	--	--	--
		5/20/2020	1,300	<9.4	<14	<14	<8.9	--	--	--
		7/8/2020	970	<3.8	<5.6	<5.6	<3.6	--	--	--
		8/26/2020	420	1.8	<1.6	<1.6	<1.6	--	--	<0.44
		9/16/2020	720	<5.6	<21	<21	<13	--	--	<2.8
		12/17/2020	690	<2.1	<7.9	<7.9	<5.1	--	--	<1.1

Table 3 - Summary of Sub-Slab Vapor Analytical Results
4 Corners Cleaners
Maple Valley, Washington

Sample Number	Depth Collected (feet)	Date Collected	PCE and Daughter Products					Other Detected Volatile Organic Compounds		
			PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Chloroform	Dichloro-difluoromethane	1,1,2-Trichloroethane
VP-4 ¹	SUB-SLAB	7/8/2020	<32	<1.3	<1.9	<1.9	<1.2	--	--	--
		8/26/2020	290	<13	<19	<19	<13	--	--	<13
		9/16/2020	56	<2.4	<3.4	<2.4	<1.5	--	--	<0.33
		12/17/2020	400	<2.1	<7.9	<7.9	<5.1	--	--	<1.1
PQL			varies	varies	varies	varies	varies	10.0	10.0	varies
MTCA Method B Sub-Slab Screening Levels			321	12.3	NL	NL	9.33	3.62	1,520	5.21

Notes:

¹ - Collected from the permanent vapor monitoring point.

All values are presented in micrograms per cubic meter (µg/m³)

< = Not detected at the listed laboratory detection limits

E = Estimated value. The amount exceeds the linear working range of the instrument.

PQL = Practical Quantification Limit (laboratory detection limit)

NL = Not Listed; no sub-slab screening levels have been established for this constituent

Red Bold indicates the detected concentration exceeds Ecology MTCA Method B sub-slab screening level

Bold indicates the detected concentration is below Ecology MTCA Method B sub-slab screening levels

PCE = Tetrachloroethene

TCE = Trichloroethene

DCE = Dichloroethene

TABLE 4
Potential to Emit Summary
 4 Corners Cleaners, Maple Valley, Washington

Date	Sample ID	Contaminant	Laboratory Sample Results parts per million volume (ppmv)	Molecular Weight (1) grams per - mole (g/mole)	Flowrate Measured (2) cubic feet per minute (cfm)	Potential To Emit Estimated pounds per day (lb/day)	*Maximum Allowable Emission Rate pounds per day (lb/day)
1/16/2020	INPUT 14:08:00 Flow Temp = 60 F 50-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0229	165.85	120	0.0016785	2.74
		Trichloroethene (TCE)					1.37
			Estimated Total Pounds of Total HVOCs Removed 10/9/2019 to 12/17/19				0.420000
			Estimated Total Pounds of Total HVOCs Removed 1/14/2020 to 1/31/20				0.046998
2/25/2020	INPUT 9:27:00 Flow Temp = 60 F 50-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0450	165.85	120	0.0032983	
		Trichloroethene (TCE)					
			Estimated Total Pounds of Total HVOCs Removed 2/1/20 to 3/5/20				0.108845
3/16/2020	OUPUT 10:34:00 Flow Temp = 60 F 50-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0023	165.85	120	0.0001686	
		Trichloroethene (TCE)	0.00019	131.4	120	0.0000110	
			Estimated Total Pounds of Total HVOCs Removed 3/16/20 to 4/09/20				0.005927
5/20/2020	OUPUT 11:56:00 Flow Temp = 60 F 50-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0003	165.85	120	0.0000220	
		Trichloroethene (TCE)	0.006	131.4	120	0.0003484	
			Estimated Total Pounds of Total HVOCs Removed 4/10/2020 to 5/20/20				0.015187
7/8/2020	OUPUT 11:56:00 Flow Temp = 60 F 50-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0056	165.85	120	0.0004105	
		Trichloroethene (TCE)	0.006	131.4	120	0.0003484	
			Estimated Total Pounds of Total HVOCs Removed 5/20/2020 to 7/8/20				0.037186
8/20/2020	4CC-Inlet SVE 13:16:00 Flow Temp = 55 F 55-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0014	165.85	110	0.0000941	
		Trichloroethene (TCE)	0.000	131.4	110	0.0000106	
			Estimated Total Pounds of Total HVOCs Removed 7/8/2020 to 8/20/20				0.004503
9/16/2020	Effluent-091620 11:56:00 Flow Temp = 60 F 50-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0034	165.85	120	0.0002492	
		Trichloroethene (TCE)	0.000	131.4	120	0.0000075	
			Estimated Total Pounds of Total HVOCs Removed 8/20/2020 to 9/16/20				0.006932
12/17/2020	Influent-121720 13:20:00 Flow Temp = 60 F 55-inches W.C. Total System Vacuum	Tetrachloroethene (PCE)	0.0110	165.85	120	0.0008063	
		Trichloroethene (TCE)	0.000	131.4	120	0.0000093	
			Estimated Total Pounds of Total HVOCs Removed 9/16/20 to 12/17/20				0.075031
			Estimated Total Pounds of Total HVOCs Removed 376 Days Operating				0.720608

Notes:

CFM = Flow rate of gas (standard cubic feet per minute)

PPMV = Concentration of gas in parts per million by volume

1 Pound = 453.6 grams

1 Liter = 0.03531 cubic feet

1 Mole of gas = 24.46 Liters volume at STP (77°F and 29.92 "w.c.)

ft/min = feet per minute

inches W.C. = Inches of Water Column

TO CALCULATE TOTAL POUNDS REMOVED:

$$\text{TOTAL LBS REMOVED} = \frac{\text{MW g}}{1 \text{ mole}} \times \frac{1 \text{ lb}}{453.6 \text{ g}} \times \frac{1 \text{ mole}}{24.46 \text{ std L}} \times \frac{1 \text{ L}}{0.03531 \text{ cu ft}} \times \frac{\text{SCFM std cu ft}}{\text{min}} \times \frac{\text{CONC ppmv}}{1 \times 10^6 \text{ /ppmv}}$$

(1) = Taken from the National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards.

(2) = Velocity estimated from FPZ Blower Model SCL-K05 flow curves based on 40 inches W.C. vacuum at the system inlet.

* PSCAA Maximum Allowable Emission Rate for soil and groundwater remediation projects involving <15 pounds per year of benzene or vinyl chloride, <500 pounds per year of perchloroethylene (PCE), and <1,000 pounds per year of toxic air contaminants. (ref. PSCAA, Regulation I, Section 6.03)

Table 5 - Applied Vacuum Response Monitoring
4 Corners Dry Cleaners
Maple Valley, WA

Vacuum Monitoring Point	Date	Measured Response (Inches W.C.) ¹	EPA Pressure Reduction Goal (Inches W.C.) ²
VP-1	10/9/2019	0.04	0.02
	10/24/2019	0.05	0.02
	1/16/2020	0.03	0.02
	3/16/2020	0.03	0.02
	5/20/2020	0.00	0.02
	7/17/2020	0.03	0.02
	8/19/2020	0.22	0.02
	9/15/2020	0.12	0.02
	10/14/2020*	0.03	0.02
	11/23/2020**	0.02	0.02
	12/17/2020	0.03	0.02
VP-2	10/9/2019	0.05	0.02
	10/24/2019	0.03	0.02
	1/16/2020	0.02	0.02
	3/16/2020	0.03	0.02
	7/17/2020	0.03	0.02
	8/19/2020	0.02	0.02
	9/15/2020	0.03	0.02
	10/14/2020*	0.03	0.02
	11/23/2020**	0.02	0.02
	12/17/2020	0.00	0.02
VP-3	10/9/2019	0.04	0.02
	10/24/2019	0.03	0.02
	1/16/2020	0.00	0.02
	3/16/2020	0.03	0.02
	7/17/2020	0.03	0.02
	8/19/2020	0.04	0.02
	9/15/2020	0.03	0.02
	10/14/2020*	0.03	0.02
	11/23/2020**	0.02	0.02
	12/17/2020	0.00	0.02
VP-4	7/17/2020	0.00	0.02
	8/19/2020	0.02	0.02
	10/14/2020*	0.03	0.02
	11/23/2020**	0.02	0.02
	12/17/2020	0.00	0.02

Notes:

All values presented in inches of water column (Inches W.C.)

¹ Readings from permanent vapor monitoring points inside the building (Dwyer Series 2001 Magnehelic gage).

² EPA-600-R-08115 Engineering Issue: *Indoor Air Vapor Intrusion Mitigation Approaches*, October 2008

-- = Not measured

* = SVE system shut down for the first "pulsing" of the system.

** = SVE system restarted and operated until 12/08/20 system piping flooded.

APPENDIX A

Supporting Documents

Laboratory Datasheets



Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

December 14, 2020

Scott Rose
Associated Environmental Group, LLC
2633 Parkmont Lane SW, Suite A
Olympia, WA 98502

Dear Mr. Rose:

Please find enclosed the analytical data report for the 4 Corners Cleaner Project located in Maple Valley, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of in 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

A handwritten signature in black ink, appearing to read "Sherry L. Chilcutt".

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Libby Environmental, Inc.

4 CORNERS CLEANER PROJECT
AEG, LLC
Maple Valley, Washington
Libby Project # L201211-7
Client Project # 17-126

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

Volatile Organic Compounds by EPA Method 8260D in Water

Sample Description		Method	MW-1	MW-2	MW-3	MW-5
		Blank				
Date Sampled		N/A	12/11/2020	12/11/2020	12/11/2020	12/11/2020
Date Analyzed	PQL	12/13/2020	12/13/2020	12/13/2020	12/13/2020	12/13/2020
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Vinyl Chloride (VC)	0.2	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.5	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.4	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	nd	nd	nd	nd
Surrogate Recovery						
Dibromofluoromethane		122	126	109	127	125
1,2-Dichloroethane-d4		111	113	132	109	112
Toluene-d8		101	69	84	65	100
4-Bromofluorobenzene		98	100	97	101	102

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

4 CORNERS CLEANER PROJECT

AEG, LLC

Maple Valley, Washington

Libby Project # L201211-7

Client Project # 17-126

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Water

Matrix Spike Sample Identification: L201208-4					
Date Analyzed: 12/13/2020					
	Spiked Conc. (µg/L)	MS Response (µg/L)	MS Recovery (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	5.0	3.6	72	65-135	
1,1-Dichloroethene	5.0	4.4	88	65-135	
trans-1,2-Dichloroethene	5.0	4.2	84	65-135	
cis -1,2-Dichloroethene	5.0	6.4	128	65-135	
Trichloroethene (TCE)	5.0	4.0	80	65-135	
Tetrachloroethene (PCE)	5.0	4.2	84	65-135	
Surrogate Recovery (%)			MS		
Dibromofluoromethane			130	65-135	
1,2-Dichloroethane-d4			128	65-135	
Toluene-d8			89	65-135	
4-Bromofluorobenzene			114	65-135	

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

4 CORNERS CLEANER PROJECT

AEG, LLC

Maple Valley, Washington

Libby Project # L201211-7

Client Project # 17-126

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

Laboratory Control Sample

Date Analyzed: 12/13/2020

	Spiked Conc. (µg/L)	LCS Response (µg/L)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	5.0	4.7	94	80-120	
1,1-Dichloroethene	5.0	4.1	82	80-120	
trans-1,2-Dichloroethene	5.0	4.1	82	80-120	
cis -1,2-Dichloroethene	5.0	5.7	114	80-120	
Trichloroethene (TCE)	5.0	5.4	108	80-120	
Tetrachloroethene (PCE)	5.0	5.1	102	80-120	
Surrogate Recovery					
Dibromofluoromethane			124	65-135	
1,2-Dichloroethane-d4			125	65-135	
Toluene-d8			107	65-135	
4-Bromofluorobenzene			113	65-135	

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

4 CORNERS CLEANER PROJECT

AEG, LLC

Libby Project # L201211-7

Date Received 12/11/2020 14:20

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

Received By JC

Sample Receipt Checklist

Chain of Custody

- | | | | |
|--------------------------------------|--|------------------------------------|----------------------------------|
| 1. Is the Chain of Custody complete? | ☒ Yes | ☐ No | |
| 2. How was the sample delivered? | ☒ Hand Delivered | ☐ Picked Up | ☐ Shipped |

Log In

- | | | | |
|---|---|--|------------------------------|
| 3. Cooler or Shipping Container is present. | ☒ Yes | ☐ No | ☐ N/A |
| 4. Cooler or Shipping Container is in good condition. | ☒ Yes | ☐ No | ☐ N/A |
| 5. Cooler or Shipping Container has Custody Seals present. | ☐ Yes | ☒ No | ☐ N/A |
| 6. Was an attempt made to cool the samples? | ☒ Yes | ☐ No | ☐ N/A |
| 7. Temperature of cooler (0°C to 8°C recommended) | <u>0.8 °C</u> | | |
| 8. Temperature of sample(s) (0°C to 8°C recommended) | <u>2.3 °C</u> | | |
| 9. Did all containers arrive in good condition (unbroken)? | ☒ Yes | ☐ No | |
| 10. Is it clear what analyses were requested? | ☒ Yes | ☐ No | |
| 11. Did container labels match Chain of Custody? | ☒ Yes | ☐ No | |
| 12. Are matrices correctly identified on Chain of Custody? | ☒ Yes | ☐ No | |
| 13. Are correct containers used for the analysis indicated? | ☒ Yes | ☐ No | |
| 14. Is there sufficient sample volume for indicated analysis? | ☒ Yes | ☐ No | |
| 15. Were all containers properly preserved per each analysis? | ☒ Yes | ☐ No | |
| 16. Were VOA vials collected correctly (no headspace)? | ☒ Yes | ☐ No | ☐ N/A |
| 17. Were all holding times able to be met? | ☒ Yes | ☐ No | |

Discrepancies/ Notes

- | | | | |
|---|------------------------------|-----------------------------|---|
| 18. Was client notified of all discrepancies? | ☐ Yes | ☐ No | ☒ N/A |
|---|------------------------------|-----------------------------|---|

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE

Ph: 360-352-2110

Olympia, WA 98506

Fax: 360-352-4154

Client: **AEG**

Date: **12/11/20**

Page: **1** of **1**

Project Manager: **Scott Rose**

Address: **605 11th Ave SE Suite 201**

Project Name: **4 corners cleaner**

City: **Olympia** State: **WA** Zip: **98501**

Location: **2886 SE Kent-Kangley Rd** City, State: **Made valley WA**

Phone: **360-352-9835** Fax:

Collector: **Foster Koetzel** Date of Collection: **12/11/20**

Client Project # **17-126**

Email: **SRose@AEGWA.com**



Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	PAH 8270	PCB's 8082	MTCA 5 Metals	PCE/TCE w/ Daughter Products (8260)	Field Notes
1 MW-1		1042	GW	VOA												
2 MW-2		1009	GW	VOA												
3 MW-3		0907	GW	VOA												
4 MW-5		0938	GW	VOA												
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																

Relinquished by:	Date / Time: 12/11/20 1420	Received by:	Date / Time: 12/11/20 1420	Sample Receipt:	Remarks:
Relinquished by:	Date / Time:	Received by:	Date / Time:	Good Condition?	
				Cold?	
				Seals Intact?	
Relinquished by:	Date / Time:	Received by:	Date / Time:	Total Number of Containers:	TAT: 24HR 48HR 5-DAY

LEGAL ACTION CLAUSE: In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a court of law.

Distribution: White - Lab, Yellow - File, Pink - Original

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 28, 2020

Charlie Swift, Project Manager
AEG
2633 Parkmont Lane SW, Suite A
Olympia, WA 98502

Dear Mr Swift:

Included are the results from the testing of material submitted on December 17, 2020 from the 4-Corners Cleaners PO 17-126, F&BI 012313 project. There are 9 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
AEG1228R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 17, 2020 by Friedman & Bruya, Inc. from the AEG 4-Corners Cleaners PO 17-126, F&BI 012313 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AEG</u>
012313 -01	VP-4-121720
012313 -02	VP-2-121720
012313 -03	VP-3-121720
012313 -04	VP-1-121720
012313 -05	Influent-121720

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-4-121720	Client:	AEG
Date Received:	12/17/20	Project:	4-Corners Cleaners PO 17-126, F&BI 012313
Date Collected:	12/17/20	Lab ID:	012313-01 1/20
Date Analyzed:	12/22/20	Data File:	122153.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	107	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<5.1	<2
Chloroethane	<53	<20
1,1-Dichloroethene	<7.9	<2
trans-1,2-Dichloroethene	<7.9	<2
1,1-Dichloroethane	<8.1	<2
cis-1,2-Dichloroethene	<7.9	<2
1,2-Dichloroethane (EDC)	<0.81	<0.2
1,1,1-Trichloroethane	<11	<2
Trichloroethene	<2.1	<0.4
1,1,2-Trichloroethane	<1.1	<0.2
Tetrachloroethene	400	59

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-2-121720	Client:	AEG
Date Received:	12/17/20	Project:	4-Corners Cleaners PO 17-126, F&BI 012313
Date Collected:	12/17/20	Lab ID:	012313-02 1/10
Date Analyzed:	12/22/20	Data File:	122152.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	108	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<2.6	<1
Chloroethane	<26	<10
1,1-Dichloroethene	<4	<1
trans-1,2-Dichloroethene	<4	<1
1,1-Dichloroethane	<4	<1
cis-1,2-Dichloroethene	<4	<1
1,2-Dichloroethane (EDC)	<0.4	<0.1
1,1,1-Trichloroethane	<5.5	<1
Trichloroethene	<1.1	<0.2
1,1,2-Trichloroethane	<0.55	<0.1
Tetrachloroethene	87	13

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-3-121720	Client:	AEG
Date Received:	12/17/20	Project:	4-Corners Cleaners PO 17-126, F&BI 012313
Date Collected:	12/17/20	Lab ID:	012313-03 1/20
Date Analyzed:	12/22/20	Data File:	122155.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<5.1	<2
Chloroethane	<53	<20
1,1-Dichloroethene	<7.9	<2
trans-1,2-Dichloroethene	<7.9	<2
1,1-Dichloroethane	<8.1	<2
cis-1,2-Dichloroethene	<7.9	<2
1,2-Dichloroethane (EDC)	<0.81	<0.2
1,1,1-Trichloroethane	<11	<2
Trichloroethene	<2.1	<0.4
1,1,2-Trichloroethane	<1.1	<0.2
Tetrachloroethene	690	100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-1-121720	Client:	AEG
Date Received:	12/17/20	Project:	4-Corners Cleaners PO 17-126, F&BI 012313
Date Collected:	12/17/20	Lab ID:	012313-04 1/21
Date Analyzed:	12/22/20	Data File:	122154.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	108	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<5.4	<2.1
Chloroethane	<55	<21
1,1-Dichloroethene	<8.3	<2.1
trans-1,2-Dichloroethene	<8.3	<2.1
1,1-Dichloroethane	<8.5	<2.1
cis-1,2-Dichloroethene	<8.3	<2.1
1,2-Dichloroethane (EDC)	<0.85	<0.21
1,1,1-Trichloroethane	<11	<2.1
Trichloroethene	2.7	0.50
1,1,2-Trichloroethane	<1.1	<0.21
Tetrachloroethene	420	62

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Influent-121720	Client:	AEG
Date Received:	12/17/20	Project:	4-Corners Cleaners PO 17-126, F&BI 012313
Date Collected:	12/17/20	Lab ID:	012313-05 1/6.7
Date Analyzed:	12/22/20	Data File:	122151.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	110	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<1.7	<0.67
Chloroethane	<18	<6.7
1,1-Dichloroethene	<2.7	<0.67
trans-1,2-Dichloroethene	<2.7	<0.67
1,1-Dichloroethane	<2.7	<0.67
cis-1,2-Dichloroethene	<2.7	<0.67
1,2-Dichloroethane (EDC)	<0.27	<0.067
1,1,1-Trichloroethane	<3.7	<0.67
Trichloroethene	0.86	0.16
1,1,2-Trichloroethane	<0.37	<0.067
Tetrachloroethene	73	11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	AEG
Date Received:	Not Applicable	Project:	4-Corners Cleaners PO 17-126, F&BI 012313
Date Collected:	Not Applicable	Lab ID:	00-2829 MB
Date Analyzed:	12/21/20	Data File:	122132.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/28/20

Date Received: 12/17/20

Project: 4-Corners Cleaners PO 17-126, F&BI 012313

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 012334-02 1/3.3 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<0.84	<0.84	nm
Chloroethane	ug/m3	<8.7	<8.7	nm
1,1-Dichloroethene	ug/m3	<1.3	<1.3	nm
trans-1,2-Dichloroethene	ug/m3	<1.3	<1.3	nm
1,1-Dichloroethane	ug/m3	<1.3	<1.3	nm
cis-1,2-Dichloroethene	ug/m3	<1.3	<1.3	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.13	<0.13	nm
1,1,1-Trichloroethane	ug/m3	<1.8	<1.8	nm
Trichloroethene	ug/m3	<0.35	<0.35	nm
1,1,2-Trichloroethane	ug/m3	<0.18	<0.18	nm
Tetrachloroethene	ug/m3	<22	<22	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Acceptance Criteria
			Recovery LCS	
Vinyl chloride	ug/m3	35	98	70-130
Chloroethane	ug/m3	36	99	70-130
1,1-Dichloroethene	ug/m3	54	100	70-130
trans-1,2-Dichloroethene	ug/m3	54	107	70-130
1,1-Dichloroethane	ug/m3	55	102	70-130
cis-1,2-Dichloroethene	ug/m3	54	107	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	103	70-130
1,1,1-Trichloroethane	ug/m3	74	108	70-130
Trichloroethene	ug/m3	73	110	70-130
1,1,2-Trichloroethane	ug/m3	74	110	70-130
Tetrachloroethene	ug/m3	92	109	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

012313
 Report To AEG, LLC
 Company Chloris Smith
 Address 2633 Portman Ln, Suite A
 City, State, ZIP Olympia, WA 98502
 Phone 360-352-5811 Email _____

ME 12/17/20

SAMPLERS (signature) <u>[Signature]</u>		Page # _____ of _____
PROJECT NAME & ADDRESS <u>4-Corner Clean</u>		PO # <u>17-126</u>
NOTES:		INVOICE TO <u>AEG, LLC</u>
		TURNAROUND TIME ☒ Standard ☐ RUSH Rush charges authorized by: _____ SAMPLE DISPOSAL ☐ Default: Clean after 3 days ☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED					
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	Notes
HP-4-12/17/20	01	8538	259	IA / (SG)	12/17/20	27	11:30	8	11:39						X
HP-2-12/17/20	02	8267	242	IA / (SG)	12/17/20	28	11:45	8	11:59						X
HP-3-12/17/20	03	4177	256	IA / (SG)	12/17/20	29	11:55	8	12:05						X
HP-1-12/17/20	04	4183	241	IA / (SG)	12/17/20	30	12:00	8	12:10						X
				IA / SG											
Influent-12/17/20	05	4175	109	IA / (SG)	12/17/20	29	1:20	8	1:30						X
				IA / SG											
				IA / SG											

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282
 Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>Chloris Smith</u>	<u>AEG, LLC</u>	<u>12/17/20</u>	<u>15:00</u>
Received by: <u>[Signature]</u>	<u>Eric Young</u>	<u>FCB</u>	<u>12/17/20</u>	<u>15:00</u>
Relinquished by:				
Received by:				
Samples received at <u>17°C</u>				