

APRIL 2016
GROUNDWATER MONITORING

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

TRI WESTERN INVESTMENTS, LLC.

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300
Bellevue, Washington 98004
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July 6, 2016

JN-20209-5

Mr. Colin Radford
Tri Western Investments, LLC.
10423 Main Street, Suite #4
Bellevue, Washington 98004

RE: APRIL 2016 - GROUNDWATER MONITORING
Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Dear Mr. Radford:

Environmental Associates, Inc. (EAI) has completed a regularly scheduled spring groundwater monitoring event in accordance with Tri Western Investments, LLC's authorization to sample on-site monitoring wells semi-annually until further notice.

Brief Project Background

A dry-cleaner has operated as a tenant on the subject property since the 1960s. In 2009, the Client / property owner (Tri-Western Syndicated Investments) received notice from the west/southwest adjacent property owner (Bayview) that dry-cleaning solvents (tetrachloroethene or "perc" / PCE) had been discovered beneath their parcel and that they (Bayview) suspected that the source was the dry-cleaner on the subject property. Since discovery, numerous phases of explorations on and off the subject parcel have occurred along with focused remedial actions.

A network of nine (9) groundwater monitoring wells located both on the subject parcel and on the adjacent Bayview parcel have been periodically sampled since December 2011. In May 2014, a total of 800 pounds of 3-D ME hydrogen releasing compound (HRC) along with 210 pounds of HRC-Primer, both manufactured by Regenesys, was re-applied to an existing interceptor trench adjacent to the west side of the building. The groundwater monitoring wells (MW-1 through MW-9) were last sampled in September 2015.



In April 2016, three (3) additional monitoring wells (MW-10 through MW-12), were installed on the “Bank Parcel” bringing the total number of monitoring wells in the study area to 12.

Scope of Work

The following scope of work has been adopted for execution of this groundwater monitoring event:

- Measure current depths to groundwater in all twelve (12) study area monitoring wells (MW-1 through MW-12). Utilize the data to prepare an updated water table survey and groundwater flow interpretive map.
- Collect representative groundwater samples from each monitoring well using a low-flow micro-purging technique with a peristaltic pump.
- Submit all recovered groundwater samples to the project laboratory with analysis for chlorinated volatile organic compounds (CVOCs) by EPA test method 8260.
- Prepare a written summary report documenting field methods, observations, findings, and conclusions.

Installation Of Additional Monitoring Wells

On April 12, 2016, three (3) monitoring wells were drilled and installed on the “Bank Parcel” of the study area. These wells are designated MW-10 through MW-12 and their approximate locations are depicted on Plates 2 through 4.

April 2016 - Water Table Survey

The current groundwater monitoring event was performed on April 28 and 29, 2015. Prior to micro-purging, the depth to groundwater below the top of each well casing was measured. These depths to groundwater along with the corresponding deduced elevations of the water table at each well location are recorded on the data tables for each monitoring well included in Appendix-A.

During this current event, water table elevations were, on average, approximately 1.5-feet higher than water levels measured during the prior September 2015 sampling event. Plate 3, Water Table Survey presents a graphical representation of the shallow water table and deduced groundwater flow directions based upon the current geometry of monitoring wells. Examining Plate 3, groundwater flow appears to follow a curving flow path, which begins as southwesterly flow near the northeastern corner of the property and then appears to transition to a more northwesterly direction thorough the Bank Parcel.

This is the first monitoring event that incorporates the additional Bank Parcel wells, therefore the consistency and/or variability of groundwater flow direction under the Bank Parcel portion of the study may become more apparent following the completion of additional future monitoring events. Groundwater flow regimes directions under the TriWestern and Bayview parcels appear generally consistent with prior surveys.

April 2016 - Groundwater Sampling

The twelve (12) monitoring wells were sampled between April 28th and 29, 2016. Each existing monitoring well was first “micro-purged” utilizing a peristaltic pump. Following purging, groundwater samples were transferred directly to laboratory-prepared glassware.

Laboratory Results & Discussion

The twelve (12) groundwater samples were analyzed by the project laboratory for chlorinated volatile organic compounds by EPA test method 8260B. The current concentrations of PCE in groundwater are presented in the table below and graphically presented on Plate 4. Additionally, the current results for all contaminants tested for along with all prior laboratory results are presented in the Data Tables in Appendix-B. A copy of the laboratory report is included as Appendix-C.

PCE Concentrations In Parts Per Billion (ppb) Prior & Current Sampling Events

Monitoring Well	Prior Event (Sept 2015)	Current Event (April 2016)
MW-1	<1	<1
MW-2	58	32
MW-3	49	70
MW-4	2.7	4.4
MW-5	39	18
MW-6	91	67
MW-7	110	49
MW-8	1.5	1.2
MW-9	<1	5.1
MW-10	---	37
MW-11	---	130
MW-12	---	<1

In the table above, bold denotes concentrations of PCE above the WDOE's target compliance level of 5 ppb.

During this current sampling event, PCE was detected in eight (8) of the original nine (9) water well samples and in two (2) of the new well samples on the Bank Parcel. Of the 12 monitoring wells, 8 contained PCE at concentrations above the WDOE's target compliance level of 5 parts per billion (ppb). Lab results for four of the original 9 wells displayed a decline in concentration and 3 exhibited increases in PCE concentration, though two of those wells (MW-4 and MW-9) the increases were very marginal.

With reference to the original 9 monitoring wells for which there is prior sampling data, as graphically presented in Chart-1, the average concentration of PCE in the study area has been slowly declining over time, and the current average for these 9 wells is the lowest to date.

One finding of interest is that at present, the highest dissolved concentration of PCE is in newly installed well MW-11 on the Bank Parcel. It is not uncommon for a newly installed well to generate a brief "spike" in apparent dissolved concentrations in the groundwater due to the mechanical disturbance of the soil during installation. Since this sampling event is the first for those wells, insufficient data presently exists to comment further on possible concentration trends at these new locations. Data from the additional wells on the Bank Parcel have improved the level of understanding in regard to groundwater flow direction and contaminant distributions across the study area.

Next Sampling Event

The next sampling event is tentatively scheduled to occur in August 2016.

Limitations

This letter report has been prepared specific application to this project in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. This document is for the exclusive of Tri Western Investments, LLC., along with its members and appointed representatives. Discussion with respect to subsurface environmental conditions relies solely upon the results of sampling and testing conducted at separated sampling localities and environmental conditions may vary between those localities or at other locations, depths, and/or media. No other warranty, expressed or implied, is made here. If new information is acquired or developed in future site work Environmental Associates, Inc., must be retained to reevaluate the conclusions of this letter report and to provide amendments as required.

Tri Western Investments, LLC.
July 6, 2016

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Page-5

We appreciate the opportunity to be of service on this project and trust that the information provided here is fully responsive to your needs. If you have any questions or we may be of additional service, please do not hesitate to contact us.

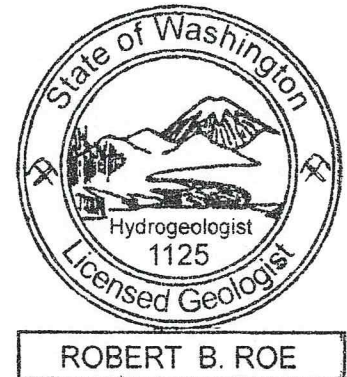
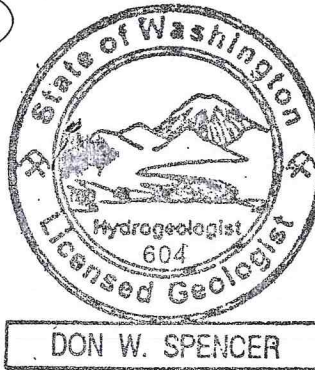
Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.


Robert B. Roe, M.Sc., P.G.
Project Manager/Hydrogeologist

License: 1125 (Washington)


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Principal

License: 604 (Washington)
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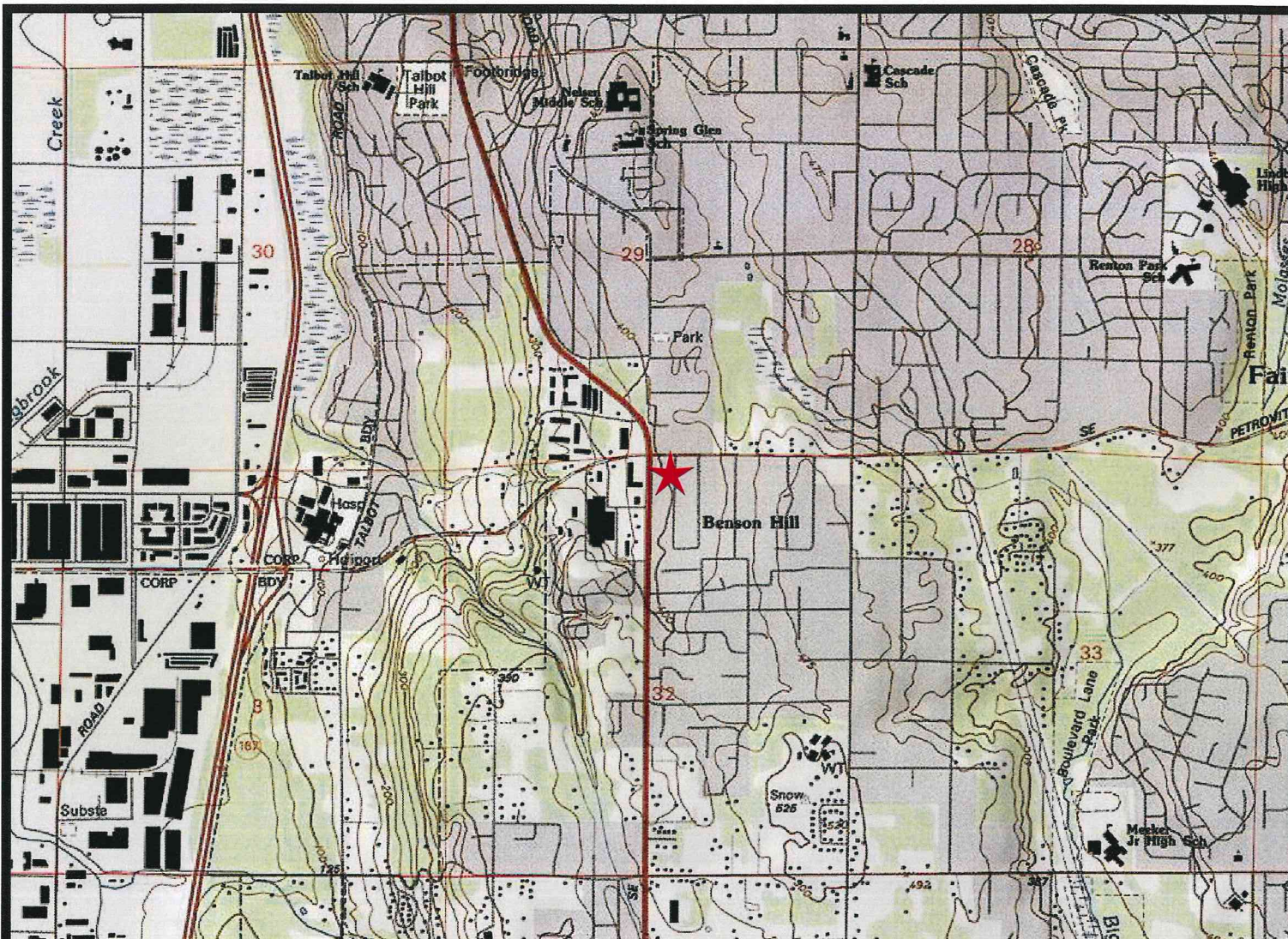


Attachments:

Plate 1 - Vicinity / Topographic Map
Plate 2 - Study Area - Overview
Plate 3 - Water Table Survey
Plate 4 - PCE In Groundwater

Chart 1: Hydrograph
Chart 2: PCE Concentration Trends
Chart 3: Average PCE Concentration in Study Area Groundwater

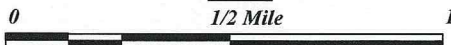
Appendix-A: Data Tables MW-1 Through MW-9
Appendix-B: Laboratory Reports



USGS: 7.5 Minute Quadrangle: Renton, Washington

Contour Interval: 25 feet

Scale



Subject Property Location



Inferred groundwater flow direction based upon the local topographical gradient in the vicinity of the subject property.



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VICINITY / TOPOGRAPHIC MAP

Mac's One Hour Cleaners

10825 SE 176th Street

Renton, Washington

Job Number:
JN-20209-5

Date:
April 2016

Plate:
1



Approximate border of Subject Parcel.

KCP#: King County tax parcel numbers.



Existing Monitoring wells installed by EAI.



Approximate locations of borings made by Terracon (TC) on the adjacent property.



Approximate locations of underground utilities: Power (red), water (blue), natural gas (yellow), phone (orange), and sanitary sewer / storm drain (green).



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STUDY AREA - OVERVIEW

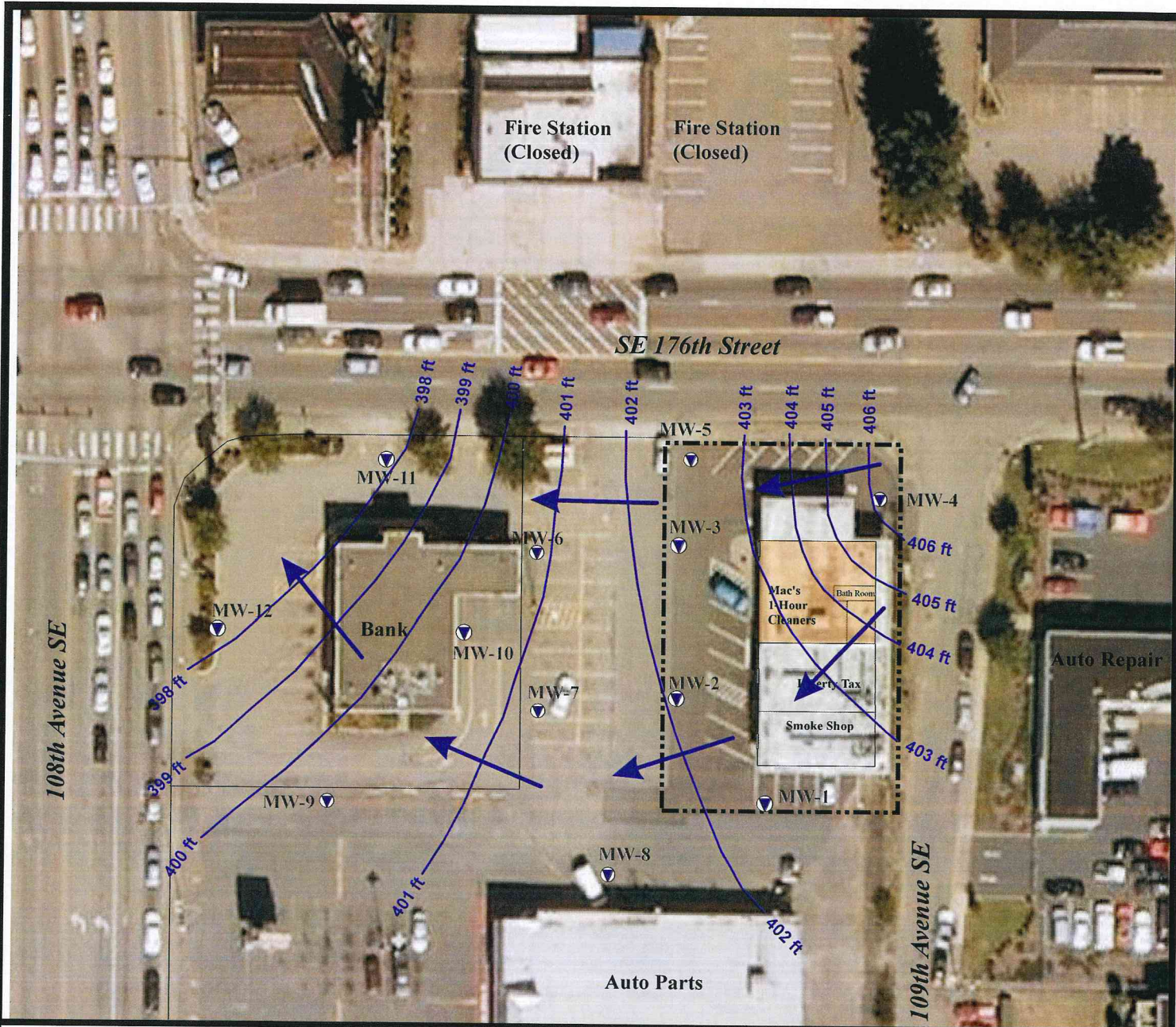
Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:
JN-20209-5

Date:
April 2016

Scale:
1"=80'

Plate:
2



Approximate border of Subject Property



Water Table equal elevation contour lines and inferred groundwater flow direction.



Existing monitoring well locations.



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1380 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

WATER TABLE SURVEY

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:

JN-20209-5

Date:

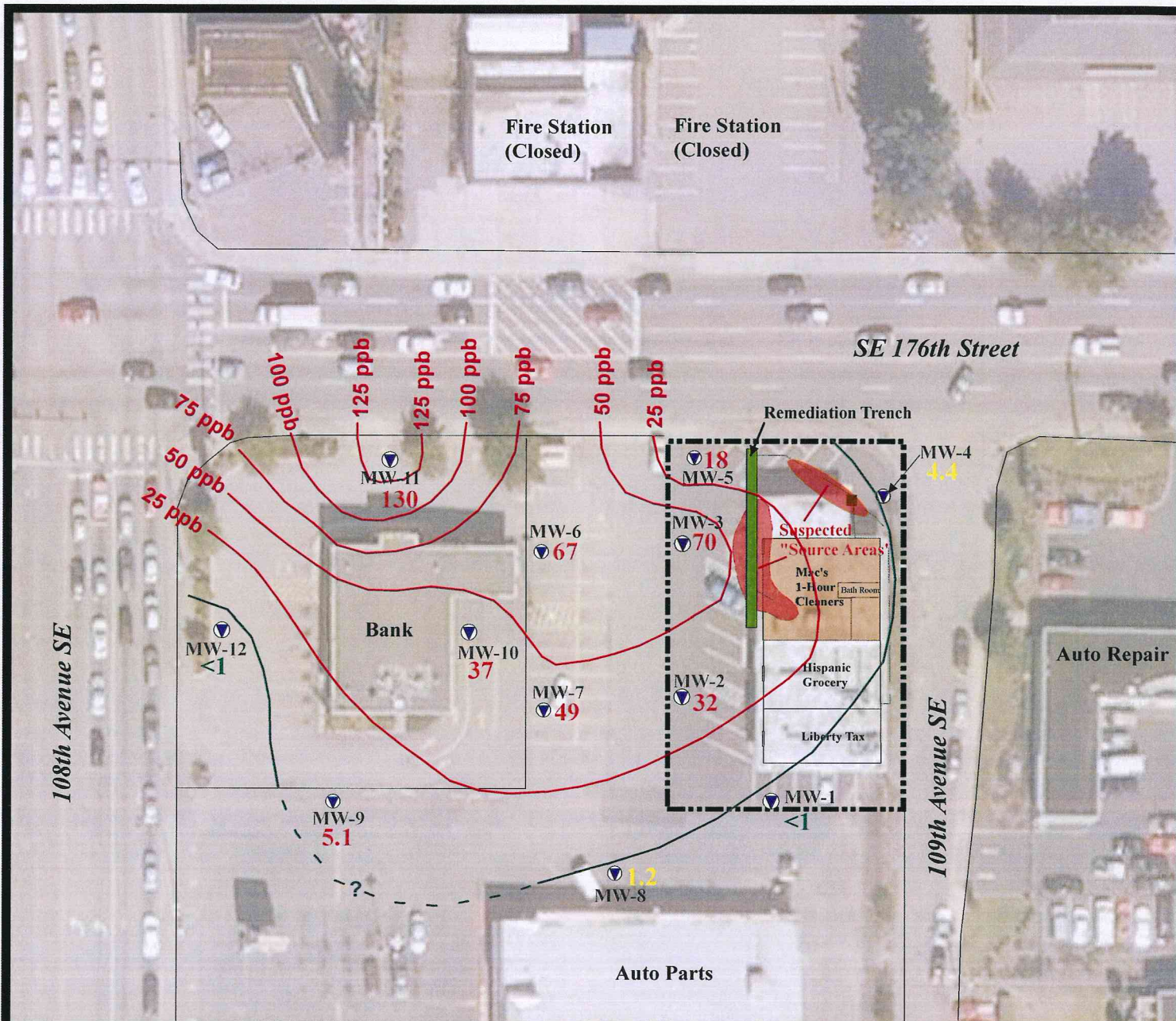
April 2016

Scale:

1"=80'

Plate:

3



Approximate border of Subject Property



PCE groundwater plume concentration contour lines. Concentrations are in parts per billion (ppb).

The WDOE target compliance level for PCE in groundwater is 5 parts per billion (ppb).

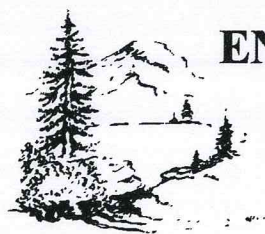
Red denotes contour lines representing concentrations above the WDOE's target compliance level.



Green contour lines infer approximate points of compliance.



Existing monitoring well locations.



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PCE IN GROUNDWATER

Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Job Number:

JN-20209-5

Date:

April 2016

Scale:

1"=80'

Plate:

4

CHART 1: Hydrograph

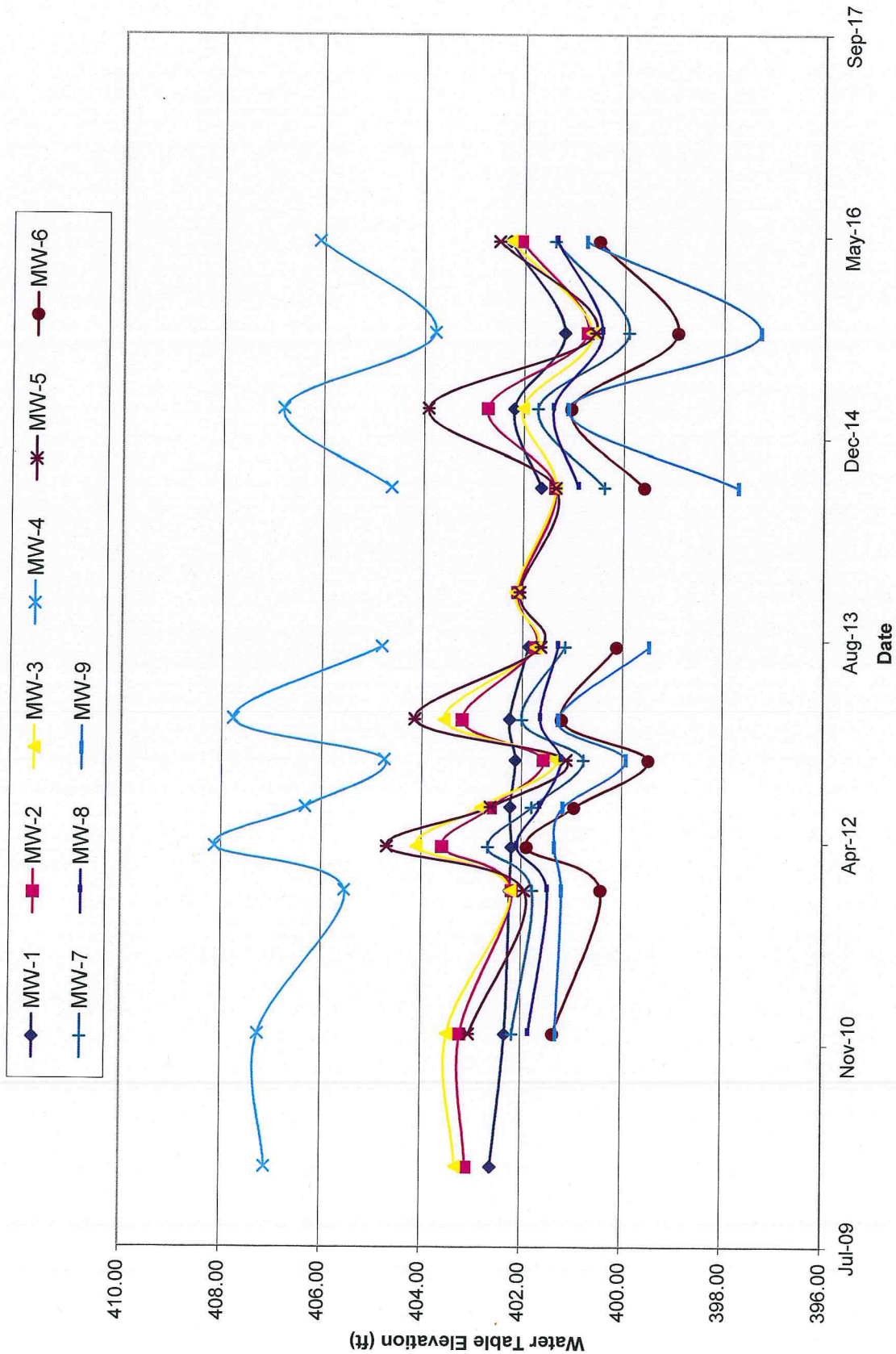


CHART 2: PCE Concentration Trends

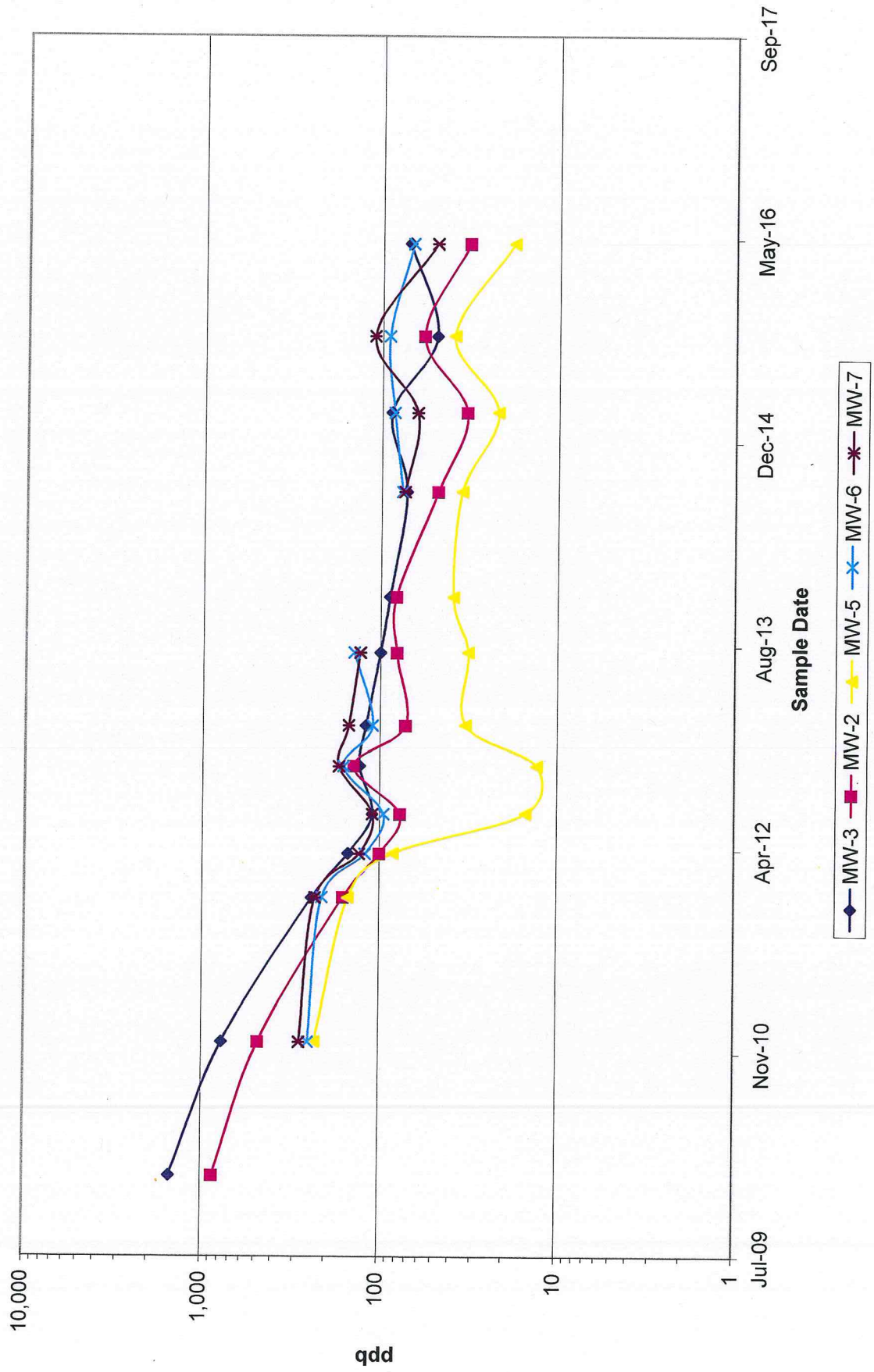
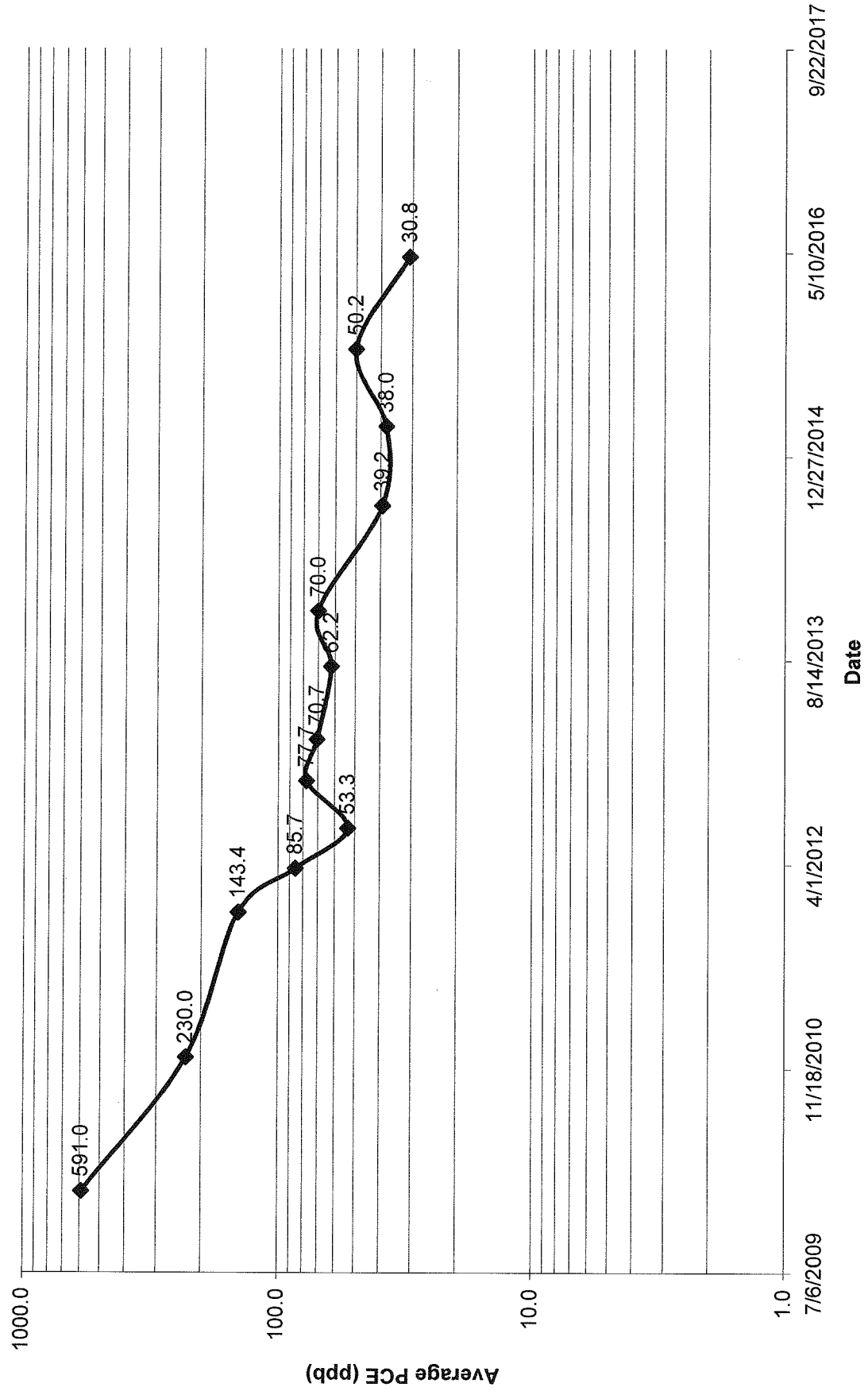


Chart 3: Average PCE Concentration in Study Area Groundwater



APPENDIX-A

Data Tables MW-1 Through MW-12

DATA TABLE: MW-1

Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
	MW-1												
	1.5	<1	<1	<1	<0.2	5.11		402.58	7.29	15.3	13.0	-93	3.69
	1.5	<1	<1	<1	<0.2	5.38	-0.27	402.31	5.9	9.1	12.6	110	7.12
	<1	<1	<1	<1	<0.2	5.47	-0.09	402.22	6.36	5.4	13.7	89	2.34
	<1	<1	<1	<1	<0.2	5.50	-0.03	402.19	6.16	8.1	9.87	321	8.76
	1.1	<1	<1	<1	<0.2	5.47	0.03	402.22	6.45	11.3	16.73	127	8.56
	<1	<1	<1	<1	<0.2	5.57	-0.10	402.12	6.29	3.7	15.7	446	2.97
	<1	<1	<1	<1	<0.2	5.45	0.12	402.24	6.09	10	10.7	182	6.65
	<1	<1	<1	<1	<0.2	5.82	-0.37	401.87	6.14	1.32	19.9	190	4.8
	<1	<1	<1	<1	<0.2	6.05	-0.23	401.64					
	<1	<1	<1	<1	<0.2	5.5	0.55	402.19					
	<1	<1	<1	<1	<0.2	6.51	-1.01	401.18					
	<1	<1	<1	<1	<0.2	5.41	1.10	402.28					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-2													
Groundwater Sampling Results in parts per billion (ppb)													
Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-2													
1/20/2010	860	1.7	<1	<1	<0.2	5.36		403.08	6.55	12.2	14.3	37	2.52
12/16/2010	480	1.7	<1	<1	<0.2	5.24	0.12	403.20	5.43	12.7	14.9	223	6.64
12/6/2011	160	<1	<1	<1	<0.2	6.26	-1.02	402.18	6.35	7.5	15.5	209	5.17
3/23/2012	100	<1	<1	<1	<0.2	4.86	1.40	403.58	5.19	13.1	10.89	306	8.03
6/28/2012	77	<1	<1	<1	<0.2	5.83	-0.97	402.61	6.12	13.1	17.00	251	6.91
10/24/2012	140	<1	<1	<1	<0.2	6.88	-1.05	401.56	6.28	11.0	19.1	473	5.24
1/31/2013	72	<1	<1	<1	<0.2	5.25	1.63	403.19	5.94	11.7	12.7	215	6.28
7/29/2013	81	<1	<1	<1	<0.2	6.70	-1.45	401.74	5.82	11.5	19.2	293	8
12/13/2013	82	<1	<1	<1	<0.2	6.34	0.36	402.1					
8/28/2014	48	<1	<1	<1	<0.2	7.08	-0.74	401.36					
3/11/2015	33	<1	<1	<1	<0.02	5.72	1.36	402.72					
9/15/2015	58	<1	<1	<1	<0.02	7.71	-1.99	400.73					
4/29/2016	32	<1	<1	<1	<0.02	6.38	1.33	402.06					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

1- "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/1/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-3													
Groundwater Sampling Results in parts per billion (ppb)													
Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-3													
1/20/2010	1,500	1.4	<1	<1	<0.2	5.55		403.29	6.63	21.8	14.2	200	5.56
12/16/2010	770	1.7	<1	<1	<0.2	5.39	0.16	403.47	5.54	21.9	14.9	225	7.49
12/5/2011	240	<1	<1	<1	<0.2	6.65	-1.26	402.21	6.19	16.8	15.4	217	6.13
3/23/2012	150	<1	<1	<1	<0.2	4.76	1.89	404.10	5.71	23.7	11.47	311	7.91
6/28/2012	110	<1	<1	<1	<0.2	6.05	-1.29	402.81	5.95	28.8	16.82	269	8.22
10/24/2012	130	<1	<1	<1	<0.2	7.54	-1.49	401.32	6.24	25.0	18.3	473	5.06
1/31/2013	120	<1	<1	<1	<0.2	5.30	2.24	403.56	5.66	32.8	12.5	238	3.43
7/29/2013	100	<1	1.4	<1	<0.2	7.13	-1.83	401.73	5.75	23.7	19.1	312	6.9
12/13/2013	89	<1	3.6	<1	<0.2	6.72	0.41	402.14					
8/28/2014	72	1.1	<1	<1	<0.2	7.51	-0.79	401.35					
3/11/2015	88	1.3	1.3	<1	<0.2	6.84	0.67	402.02					
9/15/2015	49	1.8	<1	<1	<0.2	8.22	-1.38	400.64					
4/29/2016	70	<1	<1	<1	<0.2	6.58	1.64	402.28					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:
1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
2 - "NA" denotes sample not analyzed for specific analyte.
3 - "Reporting Limit" represents the laboratory lower quantitation limit.
4 - Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-4													
Groundwater Sampling Results in parts per billion (ppb)													
Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-4													
1/20/2010	2.6	<1	<1	<1	<0.2	5.65		407.09	6.86	33.4	13.5	221	5.88
12/16/2010	6.8	<1	<1	<1	<0.2	5.53	0.12	407.24	5.64	31.1	14.0	216	6.64
12/6/2011	3.6	<1	<1	<1	<0.2	7.24	-1.71	405.53	6.31	20.3	14.1	220	5.05
3/23/2012	3.6	<1	<1	<1	<0.2	4.65	2.59	408.12	5.76	40.5	11.01	356	7.86
6/29/2012	2.9	<1	<1	<1	<0.2	6.45	-1.80	406.32	6.08	29.7	15.87	199	8.71
10/24/2012	2.6	<1	<1	<1	<0.2	8.03	-1.58	404.74	6.47	26.5	17.8	373	5.15
2/1/2013	3.2	<1	<1	<1	<0.2	5.01	3.02	407.76	5.86	29.7	12.6	222	5.01
7/30/2013	3.4	<1	<1	<1	<0.2	7.97	-2.96	404.8	5.81	28	18.5	272	6.3
12/13/2013													
8/28/2014	4.8	<1	<1	<1	<0.2	8.14	-0.17	404.63					
3/10/2015	3.7	<1	<1	<1	<0.2	5.98	2.16	406.79					
9/15/2015	2.7	<1	<1	<1	<0.2	9	-3.02	403.77					
4/28/2016	4.4	<1	<1	<1	<0.2	6.68	2.32	406.09					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-5
Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-5													
12/16/2010	230	1.9	<1	<1	<0.2	7.06		403.03	5.72	14.7	15.3	219	6.77
12/5/2011	150	<1	<1	<1	<0.2	8.16	-1.10	401.93	6.30	9.3	15.3	198	4.67
3/23/2012	84	<1	<1	<1	<0.2	5.40	2.76	404.69	5.81	31.7	11.08	261	4.13
6/29/2012	15	3	120	<1	<0.2	7.47	-2.07	402.62	6.49	180	15.35	-92	10.44
10/24/2012	13	<1	90	<1	<0.2	8.98	-1.51	401.11	6.74	9.8	17.7	-89	0.33
2/1/2013	33	1.4	29	<1	0.22	5.95	3.03	404.14	6.18	41.7	12.9	80	0.00
7/30/2013	32	3.8	64	<1	0.46	8.46	-2.51	401.63	6.21	9.3	17	11	3
12/13/2013	39	4.7	34	<1	<0.2	8.03	0.43	402.06					
8/28/2014	35	7.9	47	<1	<0.2	8.74	-0.71	401.35					
3/11/2015	22	1.3	5.7	<1	<0.2	6.18	2.56	403.91					
9/15/2015	39	11	26	<1	<0.2	9.52	-3.34	400.57					
4/28/2016	18	5.6	15	<1	<0.2	7.59	1.93	402.5					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-6
Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-6													
12/16/2010	250	1.1	<1	<1	<0.2	6.48		401.35	6.03	19.7	13.9	217	6.68
12/6/2011	210	<1	<1	<1	<0.2	7.42	-0.94	400.41	6.59	15.9	14.4	197	6.81
3/22/2012	120	<1	<1	<1	<0.2	5.94	1.48	401.89	5.35	16.6	10.35	323	7.97
6/28/2012	95	<1	<1	<1	<0.2	6.88	-0.94	400.95	6.24	18.8	15.41	251	8.78
10/23/2012	160	<1	<1	<1	<0.2	8.36	-1.48	399.47	6.53	19.8	15.8	422	8.93
1/31/2013	110	<1	<1	<1	<0.2	6.62	1.74	401.21	5.87	21.0	11.90	215	5.45
7/29/2013	140	<1	<1	<1	<0.2	7.71	-1.09	400.12	5.89	0.203	8.28	316	7.6
12/13/2013													
8/28/2014	76	<1	<1	<1	<0.2	8.25	-0.54	399.58					
3/10/2015	85	<1	<1	<1	<0.2	6.78	1.47	401.05					
9/15/2015	91	<1	<1	<1	<0.2	8.91	-2.13	398.92					
4/28/2016	67	<1	<1	<1	<0.2	7.33	1.58	400.5					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2 - "NA" denotes sample not analyzed for specific analyte.

3 - "Reporting Limit" represents the laboratory lower quantitation limit.

4 - Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-7													
Groundwater Sampling Results in parts per billion (ppb)													
Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-7													
12/15/2010	280	1.8	<1	<1	<0.2	5.25		402.16	6.15	23.0	13.7	139	7.22
12/5/2011	230	<1	<1	<1	<0.2	5.64	-0.39	401.77	6.68	14.0	13.3	164	5.51
3/22/2012	130	<1	<1	<1	<0.2	4.75	0.89	402.66	6.20	19.6	10.41	308	9.32
6/28/2012	110	<1	<1	<1	<0.2	5.62	-0.87	401.79	6.62	22.1	15.67	236	9.34
10/23/2012	170	1	<1	<1	<0.2	6.65	-1.03	400.76	6.59	20.0	16.4	437	8.63
1/31/2013	150	<1	<1	<1	<0.2	5.41	1.24	402.00	6.48	19.9	11.8	181	6.91
7/29/2013	130	<1	<1	<1	<0.2	6.27	-0.86	401.14	6.08	19.6	9.45	328	8.4
12/13/2013													
8/28/2014	74	<1	<1	<1	<0.2	7.04	-0.77	400.37					
3/10/2015	63	<1	<1	<1	<0.2	5.7	1.34	401.71					
9/15/2015	110	<1	<1	<1	<0.2	7.51	-1.81	399.9					
4/28/2016	49	<1	<1	<1	<0.2	6.03	1.48	401.38					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

1- "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-8

Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Monitoring Data													Reporting Limit ³		Existing Cleanup Level ⁴			
	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)	1	5 (A)	16 (B)	160 (B)	0.2 (A)	0.2 (A)
MW-8																			
12/15/2010	1.8	<1	<1	<1	<0.2	4.39		401.83	5.74	27.9	12.7	191	6.16						
12/5/2011	<1	<1	<1	<1	<0.2	4.75	-0.36	401.47	6.08	17.4	12.1	183	7.92						
3/22/2012	<1	<1	<1	<1	<0.2	4.14	0.61	402.08	5.94	22.0	9.95	335	3.02						
6/29/2012	<1	<1	<1	<1	<0.2	4.59	-0.45	401.63	6.33	24.7	16.35	285	7.67						
10/23/2012	1.5	<1	<1	<1	<0.2	5.01	-0.42	401.21	6.41	23.6	16.8	446	3.24						
2/1/2013	<1	<1	<1	<1	<0.2	4.59	0.42	401.63	6.22	28.6	11.2	225	1.57						
7/29/2013	1.2	<1	<1	<1	<0.2	4.94	-0.35	401.28	5.88	25.8	19.0	252	5.0						
12/13/2013																			
8/28/2014	1.5	<1	<1	<1	<0.2	5.33	-0.39	400.89											
3/10/2015	1.1	<1	<1	<1	<0.2	4.82	0.51	401.4											
9/15/2015	1.5	<1	<1	<1	<0.2	5.79	-0.97	400.43											
4/28/2016	1.2	<1	<1	<1	<0.2	4.88	0.91	401.34											
Reporting Limit ³	1	1	1	1	0.2														
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)														

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-9
Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-9													
12/15/2010	50	<1	<1	<1	<0.2	1.94		401.29	5.88	11.8	11.0	184	9.41
12/6/2011	10	<1	<1	<1	<0.2	2.05	-0.11	401.18	7.11	8.3	12.8	160	8.37
3/22/2012	12	<1	<1	<1	<0.2	1.90	0.15	401.33	6.14	7.1	9.43	322	10.97
6/28/2012	15	<1	<1	<1	<0.2	2.07	-0.17	401.16	6.55	12.6	17.04	242	6.35
10/24/2012	4.3	<1	<1	<1	<0.2	3.32	-1.25	399.91	6.59	4.70	17.50	439	8.39
1/31/2013	6.7	<1	<1	<1	<0.2	1.96	1.36	401.27	6.22	7.0	10.1	207	8.37
7/30/2013	9.9	<1	2.6	<1	<0.2	3.77	-1.81	399.46	6.36	19.1	18	255	6.1
12/13/2013													
8/28/2014	2.5	<1	<1	<1	<0.2	5.55	-1.78	397.68					
3/10/2015	8.4	<1	<1	<1	<0.2	2.12	3.43	401.11					
9/15/2015	<1	<1	<1	<1	<0.2	5.98	-3.86	397.25					
4/28/2016	5.1	<1	<1	<1	<0.2	2.49	3.49	400.74					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2 - "NA" denotes sample not analyzed for specific analyte.
- 3 - "Reporting Limit" represents the laboratory lower quantitation limit.
- 4 - Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-10

Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-10													
4/28/2016	37	<1	<1	<1	<0.2	6.18		400.00					
Reporting Limit ³	1	1	1	1	0.2								
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-11

Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well MW-11 4/28/2016	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
	130	<1	<1	>1	<0.2	7.89		397.72					
Reporting Limit ³	1	1	1	1									
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

DATA TABLE: MW-12
Groundwater Sampling Results in parts per billion (ppb)

Monitoring Well	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride	Depth to Water	Net Change	Water Table Elevation	pH	Conductivity (mS/m)	Temperature (Celsius)	REDOX Potential (mV)	Dissolved Oxygen (mg/L)
MW-12													
4/28/2016	<1	<1	<1	<1	<0.2	5.05		397.47					
Reporting Limit ³	1	1	1	1									
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)								

Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended 2/12/01.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

APPENDIX-B

Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
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May 5, 2016

Ryan Opitz, Project Manager
Environmental Associates, Inc.
1380 112th Ave. NE, 300
Bellevue, WA 98004

Dear Mr. Opitz:

Included are the results from the testing of material submitted on April 29, 2016 from the EAI 20209-5, F&BI 604524 project. There are 20 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
EAI0505R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 29, 2016 by Friedman & Bruya, Inc. from the Environmental Associates EAI 20209-5, F&BI 604524 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Environmental Associates</u>
604524 -01	MW-1
604524 -02	MW-2
604524 -03	MW-3
604524 -04	MW-4
604524 -05	MW-5
604524 -06	MW-6
604524 -07	MW-7
604524 -08	MW-8
604524 -09	MW-9
604524 -10	MW-10
604524 -11	MW-11
604524 -12	MW-12

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/05/16
Date Received: 04/29/16
Project: EAI 20209-5, F&BI 604524
Date Extracted: 05/02/16
Date Analyzed: 05/02/16

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl</u> <u>Benzene</u>	<u>Total</u> <u>Xylenes</u>	<u>Gasoline</u> <u>Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 52-124)
MW-10 604524-10	<1	<1	<1	<3	<100	88
MW-11 604524-11	<1	<1	<1	<3	<100	89
MW-12 604524-12	47	23	57	280	2,300	96
Method Blank 06-833 MB	<1	<1	<1	<3	<100	87

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/05/16
Date Received: 04/29/16
Project: EAI 20209-5, F&BI 604524
Date Extracted: 05/02/16
Date Analyzed: 05/02/16

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-10 604524-10	78 x	<250	94
MW-11 604524-11	<50	<250	95
MW-12 604524-12	360 x	<250	97
Method Blank 06-873 MB	<50	<250	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1	Client:	Environmental Associates
Date Received:	04/29/16	Project:	EAI 20209-5, F&BI 604524
Date Extracted:	04/29/16	Lab ID:	604524-01
Date Analyzed:	04/29/16	Data File:	042926.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-2	Client: Environmental Associates
Date Received: 04/29/16	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 604524-02
Date Analyzed: 04/29/16	Data File: 042922.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	32

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3	Client:	Environmental Associates
Date Received:	04/29/16	Project:	EAI 20209-5, F&BI 604524
Date Extracted:	04/29/16	Lab ID:	604524-03
Date Analyzed:	04/29/16	Data File:	042923.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	70

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-4	Client: Environmental Associates
Date Received: 04/29/16	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 604524-04
Date Analyzed: 04/29/16	Data File: 042920.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

	% Recovery:	Lower Limit:	Upper Limit:
Surrogates:			
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	4.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-5	Client: Environmental Associates
Date Received: 04/29/16	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 604524-05
Date Analyzed: 04/29/16	Data File: 042921.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	15
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	5.6
Tetrachloroethene	18

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6	Client:	Environmental Associates
Date Received:	04/29/16	Project:	EAI 20209-5, F&BI 604524
Date Extracted:	04/29/16	Lab ID:	604524-06
Date Analyzed:	04/29/16	Data File:	042924.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	67

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-7	Client: Environmental Associates
Date Received: 04/29/16	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 604524-07
Date Analyzed: 04/29/16	Data File: 042925.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	49

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-8	Client:	Environmental Associates
Date Received:	04/29/16	Project:	EAI 20209-5, F&BI 604524
Date Extracted:	04/29/16	Lab ID:	604524-08
Date Analyzed:	04/29/16	Data File:	042919.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	1.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-9	Client: Environmental Associates
Date Received: 04/29/16	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 604524-09
Date Analyzed: 04/29/16	Data File: 042918.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	5.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10	Client:	Environmental Associates
Date Received:	04/29/16	Project:	EAI 20209-5, F&BI 604524
Date Extracted:	04/29/16	Lab ID:	604524-10
Date Analyzed:	04/29/16	Data File:	042927.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	37

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW-11	Client: Environmental Associates
Date Received: 04/29/16	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 604524-11
Date Analyzed: 04/29/16	Data File: 042928.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12	Client:	Environmental Associates
Date Received:	04/29/16	Project:	EAI 20209-5, F&BI 604524
Date Extracted:	04/29/16	Lab ID:	604524-12
Date Analyzed:	04/29/16	Data File:	042929.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank	Client: Environmental Associates
Date Received: NA	Project: EAI 20209-5, F&BI 604524
Date Extracted: 04/29/16	Lab ID: 06-0858 mb
Date Analyzed: 04/29/16	Data File: 042916.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JS

	% Recovery:	Lower Limit:	Upper Limit:
Surrogates:			
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/05/16

Date Received: 04/29/16

Project: EAI 20209-5, F&BI 604524

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES, AND TPH AS GASOLINE
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 604526-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance
			LCS	Criteria
Benzene	ug/L (ppb)	50	102	65-118
Toluene	ug/L (ppb)	50	92	72-122
Ethylbenzene	ug/L (ppb)	50	96	73-126
Xylenes	ug/L (ppb)	150	92	74-118
Gasoline	ug/L (ppb)	1,000	97	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/05/16

Date Received: 04/29/16

Project: EAI 20209-5, F&BI 604524

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	93	101	63-142	8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/05/16

Date Received: 04/29/16

Project: EAI 20209-5, F&BI 604524

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 604518-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	100	36-166
Chloroethane	ug/L (ppb)	50	<1	113	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	97	60-136
Methylene chloride	ug/L (ppb)	50	<5	107	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	100	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	103	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	91	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	99	60-146
Trichloroethene	ug/L (ppb)	50	<1	98	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	100	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	100	98	50-154	2
Chloroethane	ug/L (ppb)	50	116	111	58-146	4
1,1-Dichloroethene	ug/L (ppb)	50	101	95	67-136	6
Methylene chloride	ug/L (ppb)	50	109	105	39-148	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	103	99	68-128	4
1,1-Dichloroethane	ug/L (ppb)	50	101	98	79-121	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	106	102	80-123	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	93	91	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	102	98	83-130	4
Trichloroethene	ug/L (ppb)	50	100	98	80-120	2
Tetrachloroethene	ug/L (ppb)	50	100	99	76-121	1

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 compound 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. Compounds in the sample matrix interfered with the quantitation of the analyte.
- 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.

604524

Send Report To

Company

Address

City, State, ZIP

Phone #

Fax #

Tri Western Insurten + LLC

104 23 main st Suite 4

Bellevue, wa 98004

425-455-5025

SAMPLE CHAIN OF CUSTODY

NE 4/29/10

SAMPLERS (signature)

PROJECT NAME/NO.

EAT 2009-5

REMARKS

PO#

Page #

of 2

TURNAROUND TIME

☐ Standard (2 Weeks)

☐ RUSH

Rush charges authorized by

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
MW-1	01A-0	4/29	1:00	water	3 vna							
MW-2	02	↓	9:45						X			
MW-3	03	↓	11:00						X			
MW-4	04	4/28	1:30						X			
MW-5	05	↓	12:30						X			
MW-6	06	↓	11:20						X			
MW-7	07	↓	10:45						X			
MW-8	08	↓	12:10						X			
MW-9	09	↓	10:25						X			
MW-10	10A-0	↓	8:30		3 vna 1 amber	X	X	X	X			

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS/COC/COC.DOC

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

COMPANY

Samples received at

DATE

TIME

12:00 9/10

FAT

4/29/10 2:15

Eric M. ...

FAT

4/29/10 14:15

MF 4/29/16

Send Report To

Company

Address

City, State, ZIP

Phone #

Fax #

Fax # _____

Fax # _____

Fax # _____

Fax #

Fax # _____
☐ Return samples

Fax # ☐ Return samples

SAMPLERS (signature)

PROJECT NAME/NO.

REMARKS

PO#

TURNAROUND TIME
☐ Standard (2 Weeks)

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

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

SIGNATURE

Relinquished by:

Received 14

Reinforced by:

Received by:

PRINT NAME

12 Yes. Os: b

COMPANY

DATE	TIME
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46000	30.1
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FORMS\COC\COC.DOC