AUGUST 2014
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
(425) 455-9025 Office
(888) 453-5394 Toll Free
(425) 455-2316 Fax

September 18, 2014 JN-20209-5

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

RE: AUGUST 2014 - GROUNDWATER MONITORING
Mac's One Hour Cleaners
10825 SE 176th Street
Renton, Washington

Dear Mr. Radford:

Environmental Associates, Inc. (EAI) has completed a groundwater monitoring event in accordance with Tri Western Investments, LLC's authorization to sample on-site monitoring wells every August and February 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 on 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 interim 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.

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 nine (9) study area monitoring wells (MW-1 through MW-9). 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.

Summary of Events Since Prior Report (August 2013)

In December 2013, EAI visited the site to sample groundwater from select monitoring wells. At that time EAI observed that all off-site monitoring wells located on the Bayview parcel had been paved over and could not be visually located. Three (3) of the on-site monitoring wells (MW-2, MW-3, and MW-5 were sampled during the December 2013 site visit. Those samples were analyzed by the project laboratory and the results are included in the tabulated data sheets in Appendix-A.

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 Regenesis, was re-applied to the existing interceptor trench adjacent to the west side of the building.

By June 2014 all of the off-site monitoring wells had been located under the pavement and re-exposed.

August 2014 - Water Table Survey

The current groundwater monitoring event was performed over a two-day period beginning on August 28th, 2014. 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 observed to generally conform to annual seasonal low conditions (Chart-1 Hydrograph). 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 be westward with a southwesterly radial influence further south in the study area. A minor degree of northwesterly flow may also be occurring in the general vicinity between MW-6 and MW-7. The groundwater flow regime appears generally consistent with prior surveys.

August 2014 - Groundwater Sampling

The nine (9) monitoring wells were sampled on August 28, 2014. 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 nine (9) 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-A. A copy of the laboratory report is included as Appendix-B.

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

Monitoring Well	Prior Event (July/Dec 2013)	Current Event (July 2013)
MW-1	<1	<1
MW-2 (Dec)	**82**	**48**
MW-3 (Dec)	**89**	**72**
MW-4	3.4	4.8
MW-5 (Dec)	**39**	**35**
MW-6	**140**	**76**
MW-7	**130**	**74**
MW-8	1.2	1.5
MW-9	**9.9**	2.5
Compliance Level	5	5

During this current sampling event, PCE was detected in eight (8) of the nine (9) samples. Five (5) contained PCE at concentrations above the Washington State Department of Ecology's 5 parts per billion (ppb) target compliance level. PCE was not detected in the groundwater sample recovered from MW-1 at a concentration above the laboratory's minimum detection limit. MW-4 and MW-8 continue to periodically produce groundwater samples with detectable PCE, but at concentrations below the 5 ppb compliance level.

Referring to the Data Table for MW-5 in Appendix-A, the enhanced bio-degradation reaction stimulated by the remediation products applied to the interceptor trench appears to be ongoing. The detected concentration of PCE was essentially unchanged during this current event and the degradation products TCE and cis-DCE continue to be present. A trace of TCE was also detected in groundwater at MW-3.

This scenario appears to continue to conform to the "classic" anaerobic microbial degradation reaction sequence that the HRC product applied to the trench system is intended to stimulate. That reaction essentially strips chlorine atoms from the PCE molecule producing TCE (3-chlorine atoms) which in turn transitions through variations of DCE (2-chlorine atoms) followed by vinyl chloride (1-chlorine) and finally ethylene / ethane (0-chlorine).

Monitoring wells MW-1 and MW-8 are both located along the southern margin of the study area. As such, monitoring well's MW-1 and MW-8 appear to continue to establish a partial southern limit of the PCE groundwater plume, as depicted on Plate 4, "PCE In Groundwater" as a red "dashed" line.

During the current sampling event, the highest concentrations of PCE were observed in the "core-of-the-plume" monitoring wells MW-2, MW-3, MW-6, and MW-7, in which concentrations of PCE in the groundwater ranged between 35 and 76 ppb. Overall contaminant concentrations within this "core" area appear to have declined since the prior full site monitoring event in late July 2013. The largest declines in PCE concentration were noted at MW-6 and MW-7, both along the Bayview / Bank Parcel boundary.

Next Sampling Event

The next quarterly sampling event is tentatively scheduled to occur in February 2015.

On-Site Drum Disposal

There are six (6) 55-gallon drums presently on the subject parcel. Four (4) drums contain soil generated during past site explorations by EAI and consultants working for Bayview. The remaining two (2) drums contain the development and purge water generated during groundwater monitoring events. Responding to the Client's desire to reduce the number of drums on-site, EAI also obtained representative samples of the soil and water during this August 2014 sampling event and had the laboratory analyze them for chlorinated VOCs.

In regard to the four (4) soil drums, only one was found to still contain PCE at concentrations above the laboratory's detection limit. This lab data will be used to begin the process of arranging for off-site disposal through Waste Management.

The water stored in the remaining two (2) drums was found to be free of chlorinated VOC's and will be discharged on-site during the next sampling event (February 2015). These two drums will need to remain on-site so that they can continue to be used during the periodic groundwater monitoring events.

A copy of the lab report for the drum contents is also included in Appendix-B.

Limitations

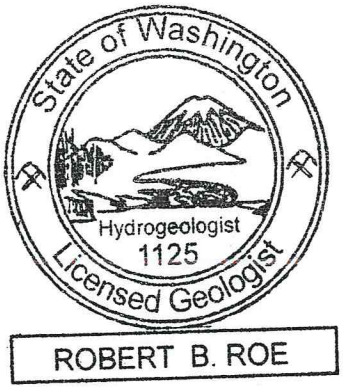
This letter report has been prepared specific application to this project in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. This document is for the exclusive of Tri 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.

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.

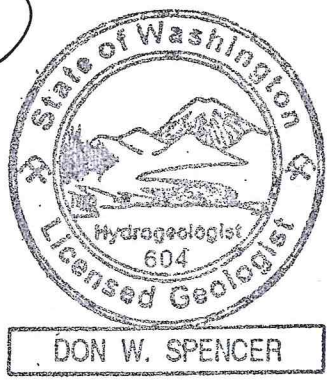
Robert B. Roe, M.Sc., P.G.
Project Manager/Hydrogeologist

License: 1125 (Washington)



Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)

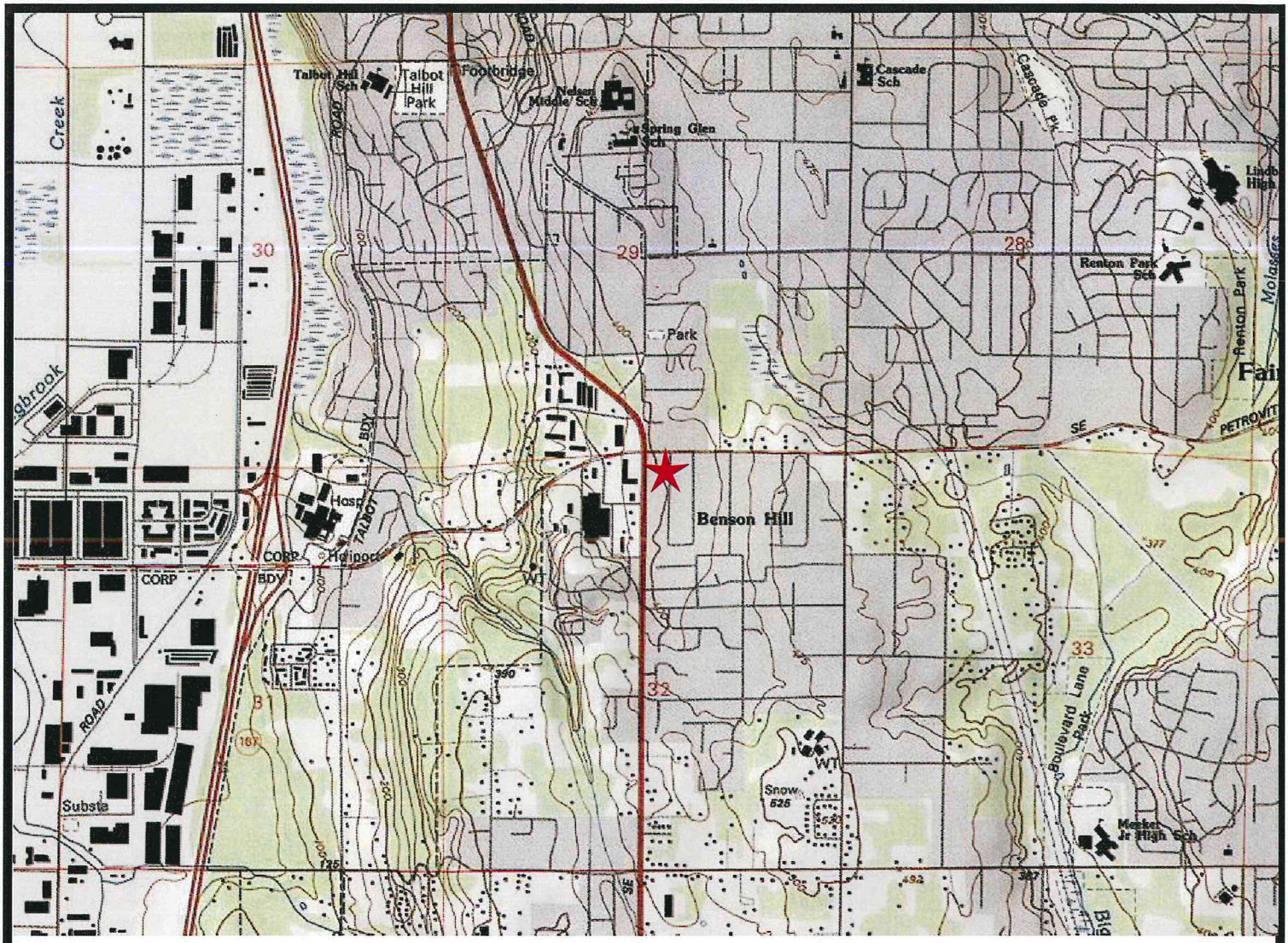


Attachments:

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

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

0 — *1/2 Mile* — *1*

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

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Renton, Washington

Job Number:	*Date:*		*Plate:*
JN-20209-5	August 2014		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

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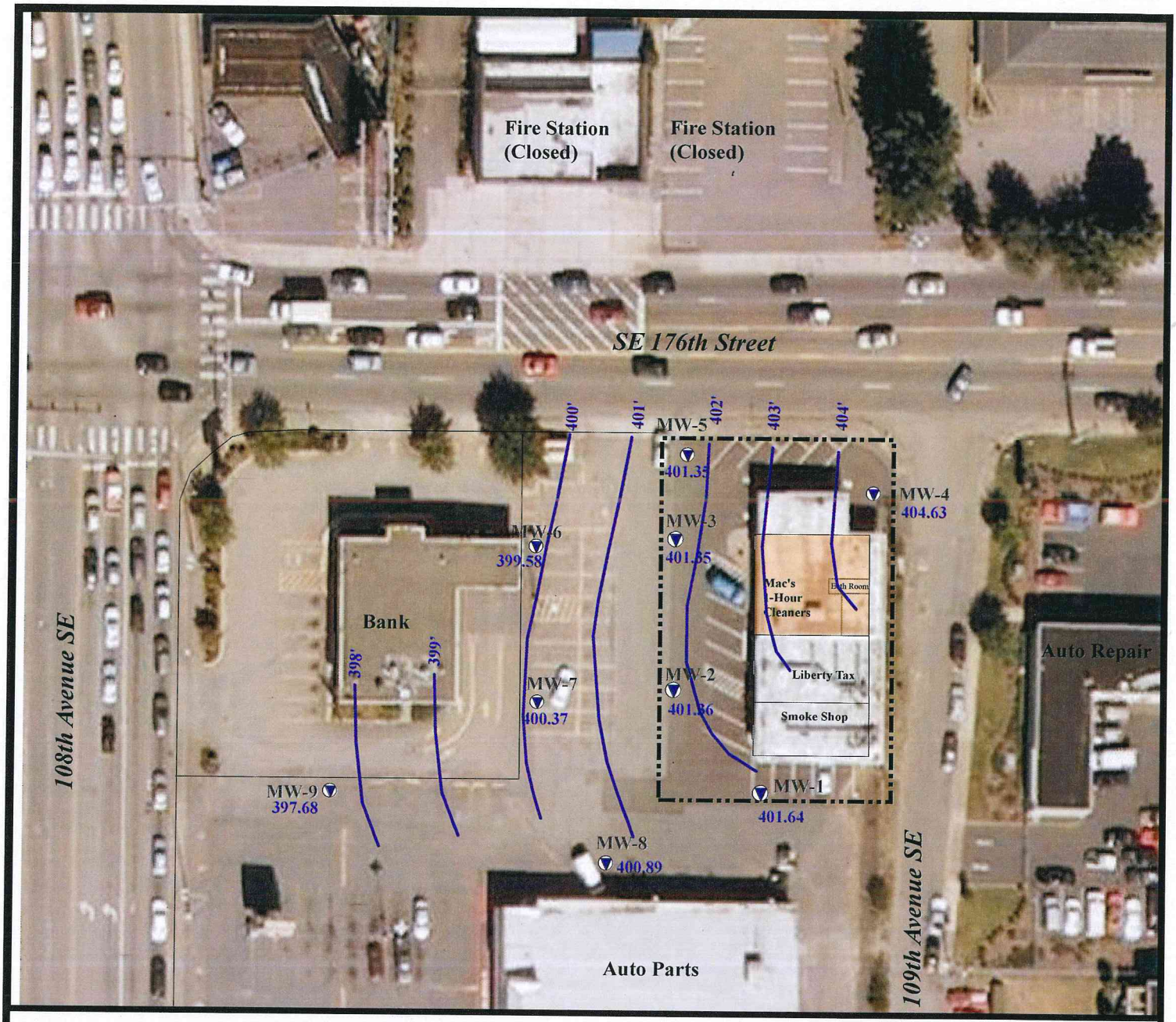
Renton, Washington

Job Number:	Date:	Scale:	Plate:
JN-20209-5	August 2014	1"=80'	2



Approximate border of Subject Property

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

Existing monitoring well locations.

N

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WATER TABLE SURVEY

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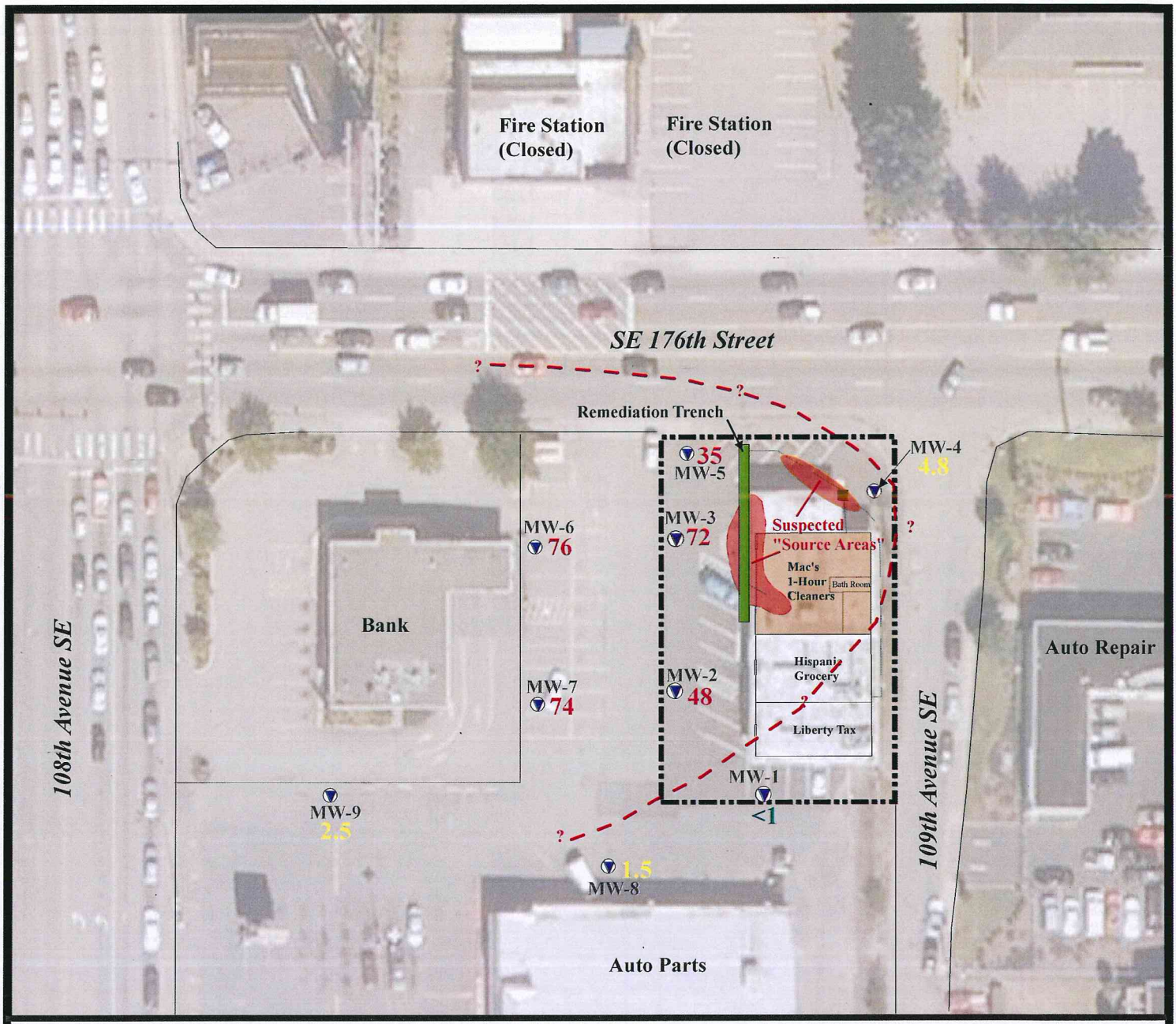
Job Number:	Date:	Scale:	Plate:
JN-20209-5	August 2014	1"=80'	3



Approximate border of Subject Property

Preliminary conceptualization of chlorinated solvent (PCE) groundwater plume. The WDOE target compliance level for PCE in groundwater is 5 parts per billion (ppb). Red denotes concentrations above the WDOE's target compliance level. Yellow denotes detections below the target compliance level. Green denotes PCE not detected above laboratory detection limits.

N

Existing monitoring well locations.

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PCE IN GROUNDWATER

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10825 SE 176th Street
Renton, Washington

Job Number:	Date:	Scale:	Plate:
JN-20209-5	August 2014	1"=80'	4

CHART 1: Hydrograph

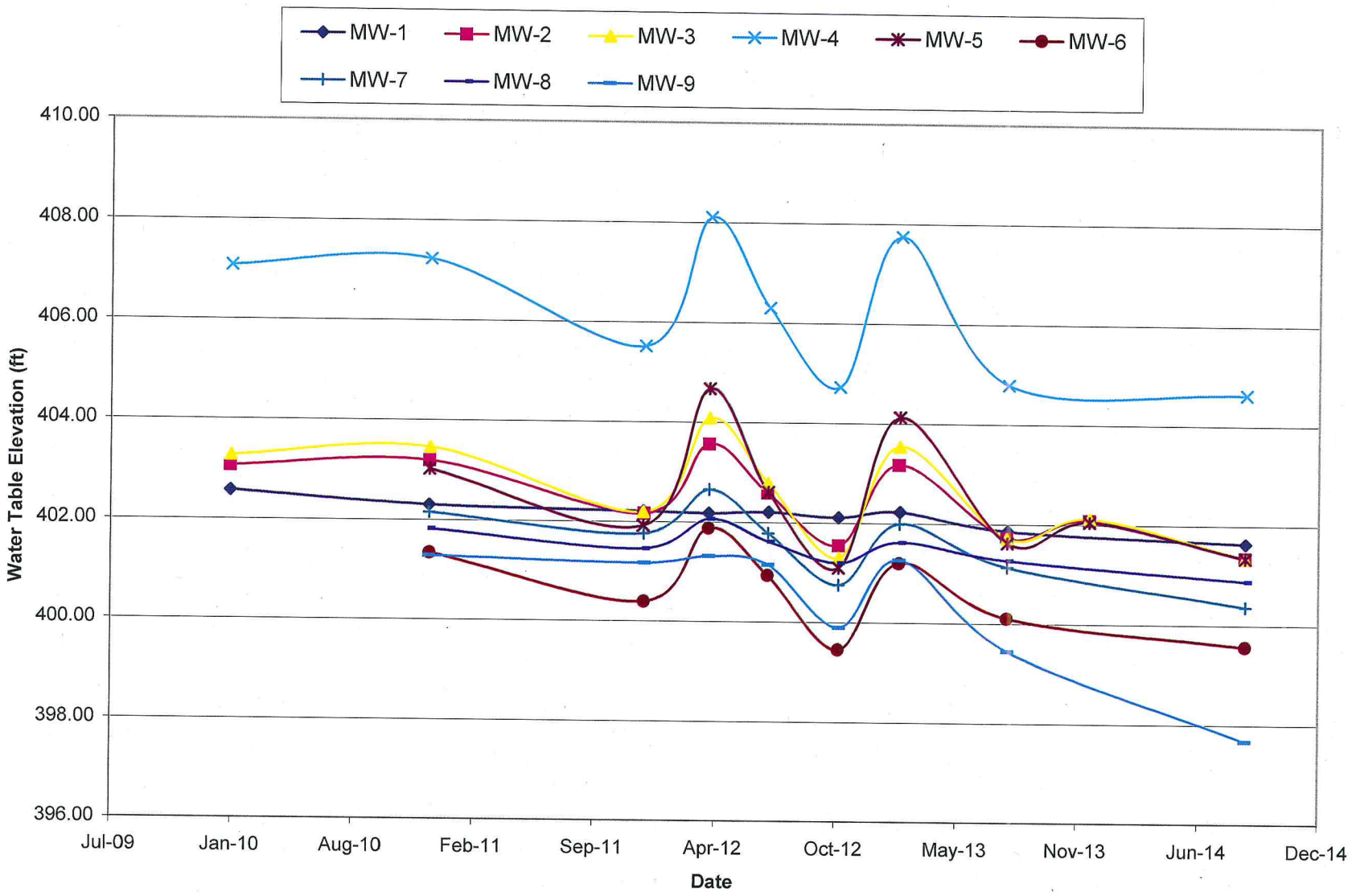
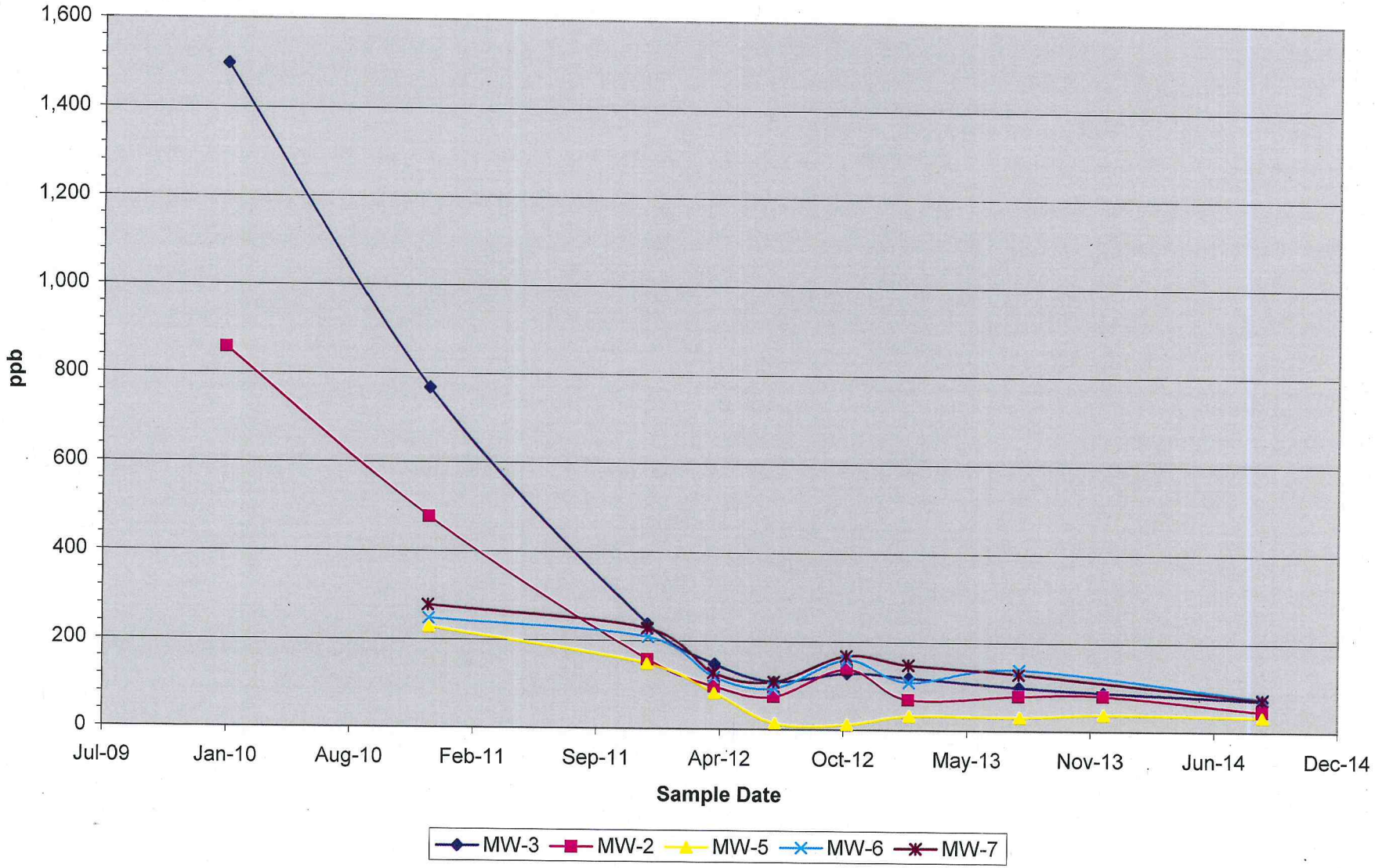


CHART 2: PCE Concentration Trends



APPENDIX-A

Data Tables
MW-1 Through MW-9

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													
1/20/2010	1.5	<1	<1	<1	<0.2	5.11		402.58	7.29	15.3	13.0	-93	3.69
12/15/2010	1.5	<1	<1	<1	<0.2	5.38	-0.27	402.31	5.9	9.1	12.6	110	7.12
12/5/2011	<1	<1	<1	<1	<0.2	5.47	-0.09	402.22	6.36	5.4	13.7	89	2.34
3/22/2012	<1	<1	<1	<1	<0.2	5.50	-0.03	402.19	6.16	8.1	9.87	321	8.76
6/29/2012	1.1	<1	<1	<1	<0.2	5.47	0.03	402.22	6.45	11.3	16.73	127	8.56
10/23/2012	<1	<1	<1	<1	<0.2	5.57	-0.10	402.12	6.29	3.7	15.7	446	2.97
2/1/2013	<1	<1	<1	<1	<0.2	5.45	0.12	402.24	6.09	10	10.7	182	6.65
7/30/2013	<1	<1	<1	<1	<0.2	5.82	-0.37	401.87	6.14	1.32	19.9	190	4.8
8/28/2014	<1	<1	<1	<1	<0.2	6.05	-0.23	401.64					
Reporting Limit [3]	1	1	1	1	0.2								
Existing Cleanup Level [4]	5 (A)	5 (A)	80 (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	6.7	-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					
Reporting Limit[3]	1	1	1	1	0.2								
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (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-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					
Reporting Limit[3]	1	1	1	1	0.2								
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (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
8/28/2014	4.8	<1	<1	<1	<0.2	8.14	-0.17	404.63					
Reporting Limit [3]	1	1	1	1	0.2								
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (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					
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-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	828	316	7.6
8/28/2014	***76***	<1	<1	<1	<0.2	8.25	-0.54	399.58					
Reporting Limit[3]	1	1	1	1	0.2								
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (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
8/28/2014	***74***	<1	<1	<1	<0.2	7.04	-0.77	400.37					
Reporting Limit[3]	1	1	1	1	0.2								
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (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	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-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
8/28/2014	1.5	<1	<1	<1	<0.2	5.33	-0.39	400.89					
Reporting Limit [3]	1	1	1	1	0.2								
Existing Cleanup Level [4]	5 (A)	5 (A)	80 (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
8/28/2014	2.5	<1	<1	<1	<0.2	5.55	-1.78	397.68					
Reporting Limit [3]	1	1	1	1	0.2								
Existing Cleanup Level[4]	5 (A)	5 (A)	80 (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.
Eric Young, B.S.

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

September 5, 2014

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

Dear Mr. Roe:

Included are the results from the testing of material submitted on August 29, 2014 from the TriWestern Mac's Cleaners 20209-5, F&BI 408489 project. There are 12 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
EAI0905R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 29, 2014 by Friedman & Bruya, Inc. from the Environmental Associates TriWestern Mac's Cleaners 20209-5, F&BI 408489 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Associates
408489 -01	Drum 1
408489 -02	Drum 2
408489 -03	Drum 3
408489 -04	Drum 4
408489 -05	Drum 5
408489 -06	Drum 6

Several compounds in the 8260C matrix spike, laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Drum 5	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408489-05
Date Analyzed:	09/02/14	Data File:	090223.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	100	93	107
4-Bromofluorobenzene	100	76	126

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:	Drum 6	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408489-06
Date Analyzed:	09/02/14	Data File:	090224.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	85	117
Toluene-d8	100	93	107
4-Bromofluorobenzene	100	76	126

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:	Not Applicable	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	04-1764 mb
Date Analyzed:	09/02/14	Data File:	090207.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	98	93	107
4-Bromofluorobenzene	98	76	126

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:	Drum 1	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408489-01
Date Analyzed:	09/02/14	Data File:	090211.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	99	51	121
4-Bromofluorobenzene	99	32	146

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.094

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Drum 2	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408489-02
Date Analyzed:	09/02/14	Data File:	090210.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	99	51	121
4-Bromofluorobenzene	99	32	146

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Drum 3	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408489-03
Date Analyzed:	09/02/14	Data File:	090212.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	99	51	121
4-Bromofluorobenzene	100	32	146

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Drum 4	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408489-04
Date Analyzed:	09/02/14	Data File:	090213.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	51	121
4-Bromofluorobenzene	99	32	146

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	04-1765 mb
Date Analyzed:	09/02/14	Data File:	090206.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	51	121
4-Bromofluorobenzene	100	32	146

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 09/05/14
Date Received: 08/29/14
Project: TriWestern Mac's Cleaners 20209-5, F&BI 408489

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

Laboratory Code: 408466-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	104	61-139
Chloroethane	ug/L (ppb)	50	<1	114	68-126
1,1-Dichloroethene	ug/L (ppb)	50	<1	100	71-123
Methylene chloride	ug/L (ppb)	50	<5	104	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	104	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	104	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	105	73-119
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	104	78-113
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	109	79-116
Trichloroethene	ug/L (ppb)	50	<1	102	75-109
Tetrachloroethene	ug/L (ppb)	50	<1	98	72-113

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	89	92	73-132	3
Chloroethane	ug/L (ppb)	50	98	99	68-126	1
1,1-Dichloroethene	ug/L (ppb)	50	87	89	75-119	2
Methylene chloride	ug/L (ppb)	50	89	93	63-132	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	89	93	76-118	4
1,1-Dichloroethane	ug/L (ppb)	50	89	92	80-116	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	90	93	81-111	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	90	92	79-109	2
1,1,1-Trichloroethane	ug/L (ppb)	50	92	96	80-116	4
Trichloroethene	ug/L (ppb)	50	89	92	77-108	3
Tetrachloroethene	ug/L (ppb)	50	88	90	78-109	2

Date of Report: 09/05/14
Date Received: 08/29/14
Project: TriWestern Mac's Cleaners 20209-5, F&BI 408489

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

Laboratory Code: 408489-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	70	70	10-138	0
Chloroethane	mg/kg (ppm)	2.5	<0.5	82	82	10-176	0
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	83	84	10-160	1
Methylene chloride	mg/kg (ppm)	2.5	<0.5	90	89	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	95	95	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	97	97	19-140	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	100	100	25-135	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	99	98	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	103	103	10-156	0
Trichloroethene	mg/kg (ppm)	2.5	<0.02	97	98	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	99	100	20-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	81	22-139
Chloroethane	mg/kg (ppm)	2.5	97	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	95	47-128
Methylene chloride	mg/kg (ppm)	2.5	104	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	108	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	111	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	113	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	110	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	121	62-131
Trichloroethene	mg/kg (ppm)	2.5	110	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	113	72-114

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.

Bill to 408489

SAMPLE CHAIN OF CUSTODY

ME 08/29/14 VS2/V2/C

Send Report To Environmental Associates,
Company TriWestern Investments, LLC
Address 10423 Main St, Suite #4
City, State, ZIP Bellevue WA 98004
Phone # (425) 455-9025 Fax # (425) 455-2316

SAMPLERS (signature) Robert B Roe
PROJECT NAME/NO. TriWestern / Mac's Cleaners
PO# 20209-5
REMARKS

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	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	Chlorinate VOCs by8260	SVOCs by 8270	HFS							Notes
Drum #1	01 A-C			Soil	3				X									
Drum #2	02				3				X									
Drum #3	03				3				X									
Drum #4	04			↓	3				X									
Drum #5	05 A-B			H_2O	2				X									
Drum #6	06 A-B			H_2O	2				X									

ANALYSES REQUESTED

Samples received at 12°C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Robert B Roe	Robert B Roe	EAI	8/29/14	
Received by: Nhan Phan	Nhan Phan	FEBT	8/29/14	1430
Relinquished by:				
Received by:				

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

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

September 5, 2014

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

Dear Mr. Roe:

Included are the results from the testing of material submitted on August 29, 2014 from the TriWestern Mac's Cleaners 20209-5, F&BI 408488 project. There are 13 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
EAI0905R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 29, 2014 by Friedman & Bruya, Inc. from the Environmental Associates TriWestern Mac's Cleaners 20209-5, F&BI 408488 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Associates
408488 -01	MW-1
408488 -02	MW-2
408488 -03	MW-3
408488 -04	MW-4
408488 -05	MW-5
408488 -06	MW-6
408488 -07	MW-7
408488 -08	MW-8
408488 -09	MW-9

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-01
Date Analyzed:	09/02/14	Data File:	090212.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	99	93	107
4-Bromofluorobenzene	100	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-02
Date Analyzed:	09/02/14	Data File:	090218.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	99	93	107
4-Bromofluorobenzene	99	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	48

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-03
Date Analyzed:	09/02/14	Data File:	090219.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	99	93	107
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	1.1
Tetrachloroethene	72

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-4	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-04
Date Analyzed:	09/02/14	Data File:	090213.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	101	93	107
4-Bromofluorobenzene	99	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	4.8

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-5	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-05
Date Analyzed:	09/02/14	Data File:	090217.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	99	93	107
4-Bromofluorobenzene	99	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	47
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	7.9
Tetrachloroethene	35

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-06
Date Analyzed:	09/02/14	Data File:	090221.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	99	93	107
4-Bromofluorobenzene	99	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	76

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-07
Date Analyzed:	09/02/14	Data File:	090220.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	99	93	107
4-Bromofluorobenzene	99	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	74

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-8	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-08
Date Analyzed:	09/02/14	Data File:	090216.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	103	93	107
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	1.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-9	Client:	Environmental Associates
Date Received:	08/29/14	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	408488-09
Date Analyzed:	09/02/14	Data File:	090215.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	101	93	107
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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	2.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	TriWestern Mac's Cleaners 20209-5
Date Extracted:	09/02/14	Lab ID:	04-1764 mb
Date Analyzed:	09/02/14	Data File:	090207.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	98	93	107
4-Bromofluorobenzene	98	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
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

Date of Report: 09/05/14
Date Received: 08/29/14
Project: TriWestern Mac's Cleaners 20209-5, F&BI 408488

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

Laboratory Code: 408466-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	104	61-139
Chloroethane	ug/L (ppb)	50	<1	114	68-126
1,1-Dichloroethene	ug/L (ppb)	50	<1	100	71-123
Methylene chloride	ug/L (ppb)	50	<5	104	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	104	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	104	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	105	73-119
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	104	78-113
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	109	79-116
Benzene	ug/L (ppb)	50	<0.35	101	79-109
Trichloroethene	ug/L (ppb)	50	<1	102	75-109
Toluene	ug/L (ppb)	50	<1	100	73-117
Tetrachloroethene	ug/L (ppb)	50	<1	98	72-113
Ethylbenzene	ug/L (ppb)	50	<1	103	71-120
m,p-Xylene	ug/L (ppb)	100	<2	103	63-128
o-Xylene	ug/L (ppb)	50	<1	104	64-129

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	89	92	73-132	3
Chloroethane	ug/L (ppb)	50	98	99	68-126	1
1,1-Dichloroethene	ug/L (ppb)	50	87	89	75-119	2
Methylene chloride	ug/L (ppb)	50	89	93	63-132	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	89	93	76-118	4
1,1-Dichloroethane	ug/L (ppb)	50	89	92	80-116	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	90	93	81-111	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	90	92	79-109	2
1,1,1-Trichloroethane	ug/L (ppb)	50	92	96	80-116	4
Benzene	ug/L (ppb)	50	88	91	81-108	3
Trichloroethene	ug/L (ppb)	50	89	92	77-108	3
Toluene	ug/L (ppb)	50	88	90	83-108	2
Tetrachloroethene	ug/L (ppb)	50	88	90	78-109	2
Ethylbenzene	ug/L (ppb)	50	92	93	84-110	1
m,p-Xylene	ug/L (ppb)	100	91	93	84-112	2
o-Xylene	ug/L (ppb)	50	92	94	82-113	2

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.

Bill to 408488

SAMPLE CHAIN OF CUSTODY

ME 08/29/14

Page 1 of 1 V3

Send Report To Environmental Associates
Company Tri Western Investments, LLC
Address 10423 Main St, Suite #4
City, State, ZIP Bellevue – WA 98004
Phone # (425) 455-9025 Fax # (425) 455-2316

SAMPLERS (signature)

PROJECT NAME/NO.: Tri Western / Mac's Cleaners

PO#: 20209-5

REMARKS

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: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	Chlorinated VOCs by 8260	SVOCs by 8270	HFS							Notes
MW-1	01 A B	8/28/14		H_2O	2				X									
MW-2	02				2				X									
MW-3	03				2				X									
MW-4	04				2				X									
MW-5	05				2				X									
MW-6	06				2				X									
MW-7	07				2				X									
MW-8	08				2				X									
MW-9	09				2				X									
																		Samples received at 12 °C

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Robert Roe	EAI	8/29/14	
Received by:		Nhan Phan	FCBI	8/29/14	1430
Relinquished by:					
Received by:					

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

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

December 26, 2013

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

Dear Mr. Roe:

Included are the results from the testing of material submitted on December 20, 2013 from the 20209-5, F&BI 312347 project. There are 7 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
EAI1226R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 20, 2013 by Friedman & Bruya, Inc. from the Environmental Associates 20209-5, F&BI 312347 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Associates
312347 -01	MW-2
312347 -02	MW-3
312347 -03	MW-5

Chloroethane in the 8260C laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analyte was not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2	Client:	Environmental Associates
Date Received:	12/20/13	Project:	20209-5, F&BI 312347
Date Extracted:	12/20/13	Lab ID:	312347-01
Date Analyzed:	12/20/13	Data File:	122011.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	96	63	127
4-Bromofluorobenzene	95	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	82

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3	Client:	Environmental Associates
Date Received:	12/20/13	Project:	20209-5, F&BI 312347
Date Extracted:	12/20/13	Lab ID:	312347-02
Date Analyzed:	12/20/13	Data File:	122012.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	97	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	3.6
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	89

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-5	Client:	Environmental Associates
Date Received:	12/20/13	Project:	20209-5, F&BI 312347
Date Extracted:	12/20/13	Lab ID:	312347-03
Date Analyzed:	12/20/13	Data File:	122013.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	96	63	127
4-Bromofluorobenzene	95	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	34
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	4.7
Tetrachloroethene	39

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	20209-5, F&BI 312347
Date Extracted:	12/20/13	Lab ID:	03-2610 mb
Date Analyzed:	12/20/13	Data File:	122009.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	98	63	127
4-Bromofluorobenzene	96	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

Date of Report: 12/26/13
Date Received: 12/20/13
Project: 20209-5, F&BI 312347

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

Laboratory Code: 312333-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	0.75	97	36-166
Chloroethane	ug/L (ppb)	50	<1	139	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	105	60-136
Methylene chloride	ug/L (ppb)	50	<5	94	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	97	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	98	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	93	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	103	60-146
Trichloroethene	ug/L (ppb)	50	<1	97	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	97	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	102	50-154	2
Chloroethane	ug/L (ppb)	50	147 vo	150 vo	58-146	2
1,1-Dichloroethene	ug/L (ppb)	50	107	108	67-136	1
Methylene chloride	ug/L (ppb)	50	95	100	39-148	5
trans-1,2-Dichloroethene	ug/L (ppb)	50	102	102	68-128	0
1,1-Dichloroethane	ug/L (ppb)	50	99	99	79-121	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	100	100	80-123	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	93	93	73-132	0
1,1,1-Trichloroethane	ug/L (ppb)	50	107	109	83-130	2
Trichloroethene	ug/L (ppb)	50	98	99	80-120	1
Tetrachloroethene	ug/L (ppb)	50	99	100	76-121	1

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.

A1 – More than one compound of similar molecule structure was identified with equal probability.

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 this range fell outside of acceptance criteria. The value reported is an estimate.

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

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

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. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. 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 analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is 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 compound indicated 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 in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

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.