NW2701
N. Woodinville 195 LLC
3rd Q

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

June 14, 2012

JN-28260-4

North Woodinville 195, LLC
c/o Mr. Chris Fusetti
Sierra Construction
19900 - 144th Avenue NE
Woodinville, Washington 98072

Subject: **GROUNDWATER SAMPLING EVENT - MAY 2012**
Former Woodinville Auto Auction Site
13820 NE 195th Street
Woodinville, Washington

Gentlemen:

In accordance with your directives, Environmental Associates, Inc (EAI) has completed another round of groundwater sampling and laboratory testing at the subject property. This work has been performed in accordance with our November 30, 2011 proposal (PR-28260-4). The following report provides a brief summary of this sampling event.

Background

On February 12, 2009, Environmental Associates, Inc. (EAI) presented North Woodinville 195, LLC (NWLLC) with a report summarizing the findings of a UST Removal and Independent Cleanup Action performed at the subject property. In that effort, EAI observed the removal of four (4) underground storage tanks (USTs), approximately 475-tons of "Class 3" petroleum impacted soils, and 12,000-gallons of petroleum impacted groundwater. Analysis of confirmation samples collected in conjunction with that effort indicated regulated petroleum hydrocarbon concentrations remained in soil and groundwater at, and beyond the limits of the remedial excavation.

entered
CP
3-20-13

At the conclusion of excavation and remedial activities, six (6) separate sections of slotted and/or perforated 2"-diameter PVC piping were installed in the subsurface at locations noted on Plate 4 in conjunction with site restoration. These various sections of piping were installed to provide a means to sample groundwater, and to facilitate application of Oxygen Releasing Compound (ORC) or other products to enhance degradation of remaining subsurface contaminants if desired.

Two (2) applications of ORC have occurred at the subject property. The first ORC treatment was performed on August 26, 2009, and included all of the onsite test pits. After EAI completed sample collection on February 10, 2010, a second ORC treatment was performed. During this second treatment, the largest amount of ORC was added to locations with the lowest measured dissolved oxygen (DO) levels. No ORC was added to the infiltration galleries during this second application. In both cases, the ORC was mixed with tap water obtained from the Woodinville Water District, poured into the onsite test-pits and/or infiltration galleries, and further back-flushed with tap water to aid in the propagation of the ORC in the subsurface environment. To date, a total of 200-pounds of ORC have added to the subsurface at the subject property.

For the benefit of the reader, ORC (oxygen releasing compound) is used to supply oxygen so that microbes present in the subsurface environment can metabolize petroleum hydrocarbons. Prior to application of the ORC compound in August of 2009, dissolved oxygen (DO) had not been detected in groundwater at the site. Measurements of groundwater quality taken during the two previous sampling events suggest the ORC applications had measurably influenced DO levels at the site.

In accordance with WDOE guidelines pertaining to UST closure "Site Assessments," a copy of our February 2009 dated report was forwarded to the WDOE. The property, under the name North Woodinville 195, LLC, is listed as a UST site and assigned a Facility ID number (#1947253). Based on information available from online WDOE resources, the property has apparently not yet been designated as a leaking underground storage tank (LUST) site by WDOE.

Upon request by the client, the network of groundwater monitoring points has been periodically sampled since its installation in 2009. The monitoring points were last sampled in November of 2011.

May 2012 Groundwater Sampling Event

On May 11, 2012, the six (6) on-site groundwater monitoring points were accessed and groundwater samples were recovered.

Prior to sampling, an electronic meter was utilized to measure the depth to the shallow groundwater surface below the top of each pipe casing. These measurements along with prior casing elevation survey data were used to deduce the relative elevation of the water table at each location, as presented in Table 1, attached. As presented on Plate 4, Detailed Site Plan, the shallow groundwater within the study area appears to be flowing westward. As the depths to water measured in the two horizontal pipe segments do not represent the water elevations at discrete locations, these data points were used to deduce an average elevation of groundwater within the former tank hold.

Average groundwater levels were noted to be approximately 0.5 to 1-foot lower than during the last sampling event, which was in February 2012. It should also be noted that groundwater was present and recoverable at all six (6) monitoring locations during this current event.

A low-flow micro-purging technique relying on a peristaltic pump was used to collect groundwater samples. Water discharged from the pump was directed to a "flow-through" cell to allow various water quality parameters to be monitored in "real time." Once select parameters (pH, temperature, and dissolved oxygen) stabilized, the parameters were documented (see Table 3 - General Water Quality Parameters) and representative samples were then pumped directly from the pump into laboratory prepared glassware.

The recovered groundwater samples were submitted to the project laboratory to be analyzed for gasoline, BTEX (benzene, toluene, ethylbenzene, xylene), diesel, and heavy oil range total petroleum hydrocarbons (TPH) by Washington State Department of Ecology test methods NWTPH-G/BTEX and NWTPH-Dx. Due to potential "interferences" noted by the project laboratory during prior sampling events, a silica gel cleanup was used in conjunction with the NWTPH-Dx analysis.

Laboratory Results & Discussion

Referring to Table 2, all six (6) recovered groundwater samples were in compliance with WDOE Method-A target levels for the compounds evaluated. The groundwater sample from TP-1 contained a trace detection of diesel at a concentration of 180 parts per billion (ppb), well below the WDOE's 500 ppb target compliance level. Similar trace concentrations of diesel range petroleum have been detected at TP-1 in past sampling events, ranging between 93 ppb to 240 ppb.

The current May 2012, sampling event marks the third consecutive quarter in which all six (6) monitoring points produced groundwater samples that were in compliance with WDOE levels for all the compounds tested for. Putting this statement in context, to qualify for a determination of "no further action" (NFA) from the WDOE, such an achievement must continue over a minimum of four (4) consecutive quarterly monitoring events.

Oxygen releasing compound (ORC) was last applied to the site in February 2010. Based upon the general water quality parameters noted in Table 3, evidence of lingering ORC "effects" (primarily elevated pH, were noted in groundwater extracted from the west-infiltration gallery piping and down-gradient monitoring point TP-3. At the remaining locations, the ORC appears to have been mostly consumed and groundwater parameters such as pH and dissolved oxygen are returning to "natural" ranges.

Summary/Conclusions

At the conclusion of the current groundwater sampling event, groundwater at all six (6) on-site monitoring locations is in compliance with WDOE Method-A levels for unrestricted land use and has remained so for three (3) consecutive quarters. As briefly mentioned above, for the WDOE to declare a cleanup action a success typically requires that groundwater compliance is demonstrated through at least four (4) consecutive quarters of monitoring (every 90 days over a 1 year period). The next recommended sampling event would occur in August 2012.

To the extent that the proposed quarterly groundwater monitoring continues to exhibit stable and compliant results, further applications of ORC do not appear to be warranted at this particular time.

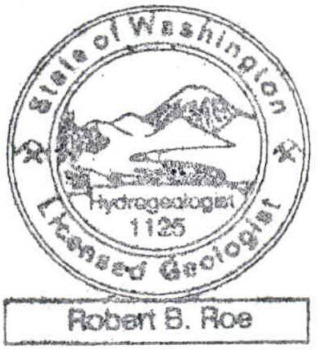
Limitations

This report has been prepared for the exclusive use of the North Woodinville 195, LLC,, along with its several representatives for specific application to this site for specific application to this site. Our work for this project was conducted 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, and in accordance with the terms and conditions set forth in our proposal dated November 30, 2011. The opinions expressed in this report are based upon interpretations, observations and testing made at separated sampling locations and conditions may vary between those locations or other locations or depths. No other warranty, expressed or implied, is made. If new information is developed in future site work that may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

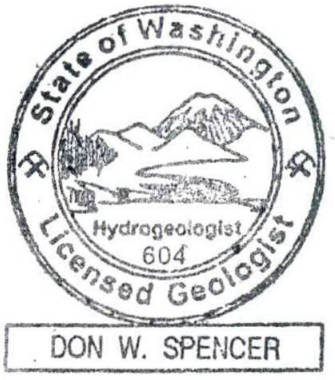
Robert B. Roe, M.Sc., LHG.
Senior Hydrogeologist / Project Manager

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

Table 1 - Water Table Survey
Table 2 - Petroleum Hydrocarbons - Groundwater Sampling Results
Table 3 - General Water Quality Parameters

Plate 1 - Vicinity Map
Plate 2 - Topographic Map
Plate 3 - Site Plan
Plate 4 - Detailed Site Plan

Appendix-A Laboratory Reports

TABLE 1
Water Table Survey
(feet)

Monitoring Point	TOC Elevation	Depth to Water Below TOC	Net Change	Elevation of Water Table
East Infiltration				
4/9/09	90.00	No Water (>4.12)	--	--
7/9/09		No Water (>4.12)	--	--
2/10/10		3.50	--	86.50
11/14/11		3.75	-0.25	86.25
2/23/12		2.63	1.12	87.37
5/11/12		3.38		
West Infiltration				
4/9/09	89.32	No Water (>3.76)	--	--
7/9/09		No Water (>3.76)	--	--
2/10/10		2.80	--	86.52
11/14/11		3.04	-0.24	86.28
2/23/12		1.92	1.12	87.40
5/11/12		2.68	-0.76	86.64
TP-1				
4/9/09	87.26	1.98		85.28
7/9/09		3.50	-1.52	83.76
2/10/10		2.40	1.10	84.86
11/14/11		2.93	-0.53	84.33
2/23/12		1.70	1.23	85.56
5/11/12		2.19	-0.49	85.07
TP-2				
4/9/09	87.88	2.23		85.65
7/9/09		3.44	-1.21	84.44
2/10/10		2.17	1.27	85.71
11/14/11		2.55	-0.38	85.33
2/23/12		1.44	1.11	86.44
5/11/12		2.04	-0.60	85.84
TP-3				
4/9/09	86.54	1.85		84.69
7/9/09		3.80	-1.95	82.74
2/10/10		2.73	1.07	83.81
11/14/11		2.99	-0.26	83.55
2/23/12		2.11	0.88	84.43
5/11/12		2.50	-0.39	84.04
TP-4				
4/9/09	87.16	2.32	--	84.84
7/9/09		No Water	--	--
2/10/10		2.60	--	84.56
11/14/11		2.68	-0.08	84.48
2/23/12		1.86	0.82	85.30
5/11/12		2.31	-0.45	84.85

Notes:
(1) TOC. Top of casing elevation.
(2) Elevations based upon assigning the ground surface in the vicinity of the East Infiltration point an approximate elevation of 90.00 feet above sea-level.

TABLE 2 - Petroleum Hydrocarbons - Groundwater Sampling Results
All results and limits in parts per billion (ppb)

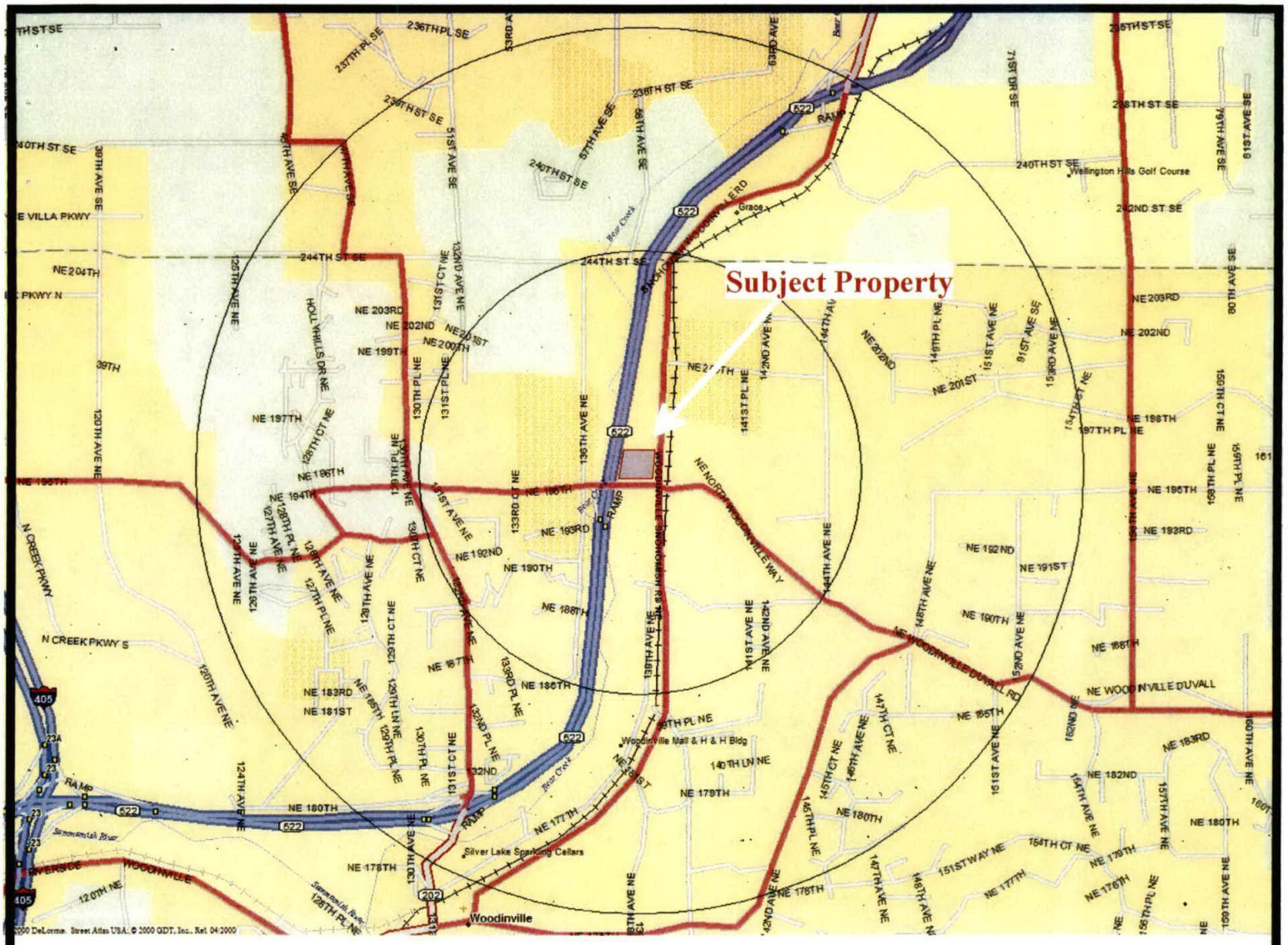
Monitoring Point	Gasoline (TPH)	Diesel (TPH)	Heavy Oil (TPH)	Benzene	Toluene	Ethylbenzene	Total Xylenes
East Infiltration							
Apr-09 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
7/9/2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
February 3, 2010	<100	<50*	<250	<1	<1	<1	<3
November 14, 2011	<100	<50*	<250	<1	<1	<1	<3
February 23, 2012	<100	<50	<250	<1	<1	<1	<3
May 11, 2012	<100	<50	<250	<1	<1	<1	<3
West Infiltration							
Apr-09 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
7/9/2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
February 10, 2010	<100	<50*	<250	<1	<1	<1	<3
November 14, 2011	<100	<50*	<250	<1	<1	<1	<3
February 23, 2012	<100	<50	<250	<1	<1	<1	<3
May 11, 2012	<100	<50	<250	<1	<1	<1	<3
TP-1							
April 9, 2009	<100	93*	<250	1	<1	<1	<3
July 9, 2009	120	230*	<250	<1	<1	<1	<3
February 3, 2010	100	240*	<250	<1	<1	<1	<3
November 11, 2011	<100	<50*	<250	<1	<1	<1	<3
February 23, 2012	<100	130	<250	<1	<1	<1	<3
May 11, 2012	<100	180*	<250	<1	<1	<1	<3
TP-2							
April 9, 2009	<100	<50*	<250	<1	<1	<1	<3
July 9, 2009	160	190*	<250	<1	<1	<1	<3
February 3, 2010	<100	<50*	<250	<1	<1	<1	<3
November 14, 2011	<100	<50*	<250	<1	<1	<1	<3
February 23, 2012	<100	<50	<250	<1	<1	<1	<3
May 11, 2012	<100	<50	<250	<1	<1	<1	<3
TP-3							
April 9, 2009	<100	83*	<250	<1	<1	<1	<3
July 9, 2009	120	***760****	470	<1	<1	<1	<3
February 3, 2010	<100	52*	<250	<1	<1	<1	<3
November 14, 2011	<100	<50*	<250	<1	<1	<1	<3
February 23, 2012	<100	<50	<250	<1	<1	<1	<3
May 11, 2012	<100	<50	<250	<1	<1	<1	<3
TP-4							
April 9, 2009	<100	<50*	<250	<1	<1	2	<3
7/9/2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
February 3, 2010	220	290*	<250	6	<1	6	<3
November 14, 2011	450	220*	<250	3.1	<1	1.7	<3
February 23, 2012	<100	<50	<250	<1	<1	<1	<3
May 11, 2012	360	270*	<250	2.7	1.8	<1	<3
Reporting Limit [3]	100	50	250	1	1	1	3
MTCA-Method-A Cleanup Levels [4]	**800 or 1000 [5]**	**500**	**500**	**5**	**1000**	**700**	**1000**

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 groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
5- The MTCA gasoline TPH cleanup level is 800 ppb for groundwater with benzene. Otherwise, the cleanup level is 1000 ppb.
6- The project laboratory reports that "the pattern of peaks present is not indicative of diesel." The detected concentration is likely "carry over" from the gasoline range.
*- Sample analyzed for diesel and heavy oil range petroluem compounds using "silica gel cleanup" methodology.

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

TABLE 3 - General Water Quality Parameters
Readings Taken at Time of Sampling

Monitoring Point	pH	Conductivity mS/m	Temperature (Celsius)	Oxidation-Reduction Potential mV	Turbidity NTU	Dissolved Oxygen mg/L	Total Dissolved Solids g/L
East Infiltration							
April 7, 2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
July 9, 09 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
February 3, 2010	6.19	22.8	9.7	+199	Not Measured	2.98	0.15
November 14, 2011	7.45	---	10.80	+152	---	7.03	---
February 23, 2012	8.91	9.5	8.1	+295	---	9.26	---
May 11, 2012	6.48	23.2	13.4	+126	---	0.78	0.15
West Infiltration							
April 7, 2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
July 9, 2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
February 3, 2010	10.35	35.9	9.2	+124	Not Measured	16.59	0.23
November 14, 2011	9.13	---	11.95	+110	---	12.79	---
February 23, 2012	8.99	26.4	8.5	+306	---	10.42	---
May 11, 2012	11.23	69.8	13.3	+11	---	12.6	0.45
TP-1							
April 7, 2009	6.57	35.4	10.8	+28	34.8	0.00	0.24
July 9, 2009	5.71	35.11	23.4	+47	Not Measured	0.00	0.23
February 3, 2010	6.75	38.0	9.0	+21	Not Measured	0.91	0.25
November 11, 2011	6.55	---	11.85	+35	---	3.7	---
February 23, 2012	6.60	27.6	8.4	+25	---	0.85	---
May 11, 2012	6.86	37.6	14.9	-111	---	0.00	0.24
TP-2							
April 7, 2009	6.74	22.1	10.5	+96	30.7	0.00	0.15
July 9, 2009	5.94	40.7	23.4	+5	Not Measured	0.00	0.26
February 3, 2010	6.72	27.8	8.6	+241	Not Measured	4.21	0.18
November 14, 2011	7.00	---	10.91	+175	---	8.6	---
February 23, 2012	7.64	12.2	8.3	+150	---	3.50	---
May 11, 2012	6.62	17.3	15.6	+24	---	0.00	0.16
TP-3							
April 7, 2009	6.71	32.2	9.6	+99	16.3	0.00	0.21
July 9, 2009	5.76	48.4	22.6	+14	Not Measured	0.00	0.31
February 3, 2010	6.69	48.5	9.0	+42	Not Measured	1.71	0.32
November 14, 2011	9.42	---	11.29	+98	---	11.16	---
February 23, 2012	9.27	21.2	7.6	+174	---	5.09	---
May 11, 2012	8.64	35.2	11.8	+108	---	0.50	0.23
TP-4							
April 7, 2009	7.34	40.8	10.5	+87	35.2	0.00	0.27
July 9, 2009 (Not Sampled, Dry)	NA	NA	NA	NA	NA	NA	NA
February 3, 2010	6.58	38.7	9.3	+4	Not Measured	0.79	0.25
November 14, 2011	7.45	---	10.80	-62	---	7.03	---
February 23, 2012	6.60	22.1	7.7	+68	---	5.23	---
May 11, 2012	6.66	39.1	11.5	-71	---	0.00	0.25



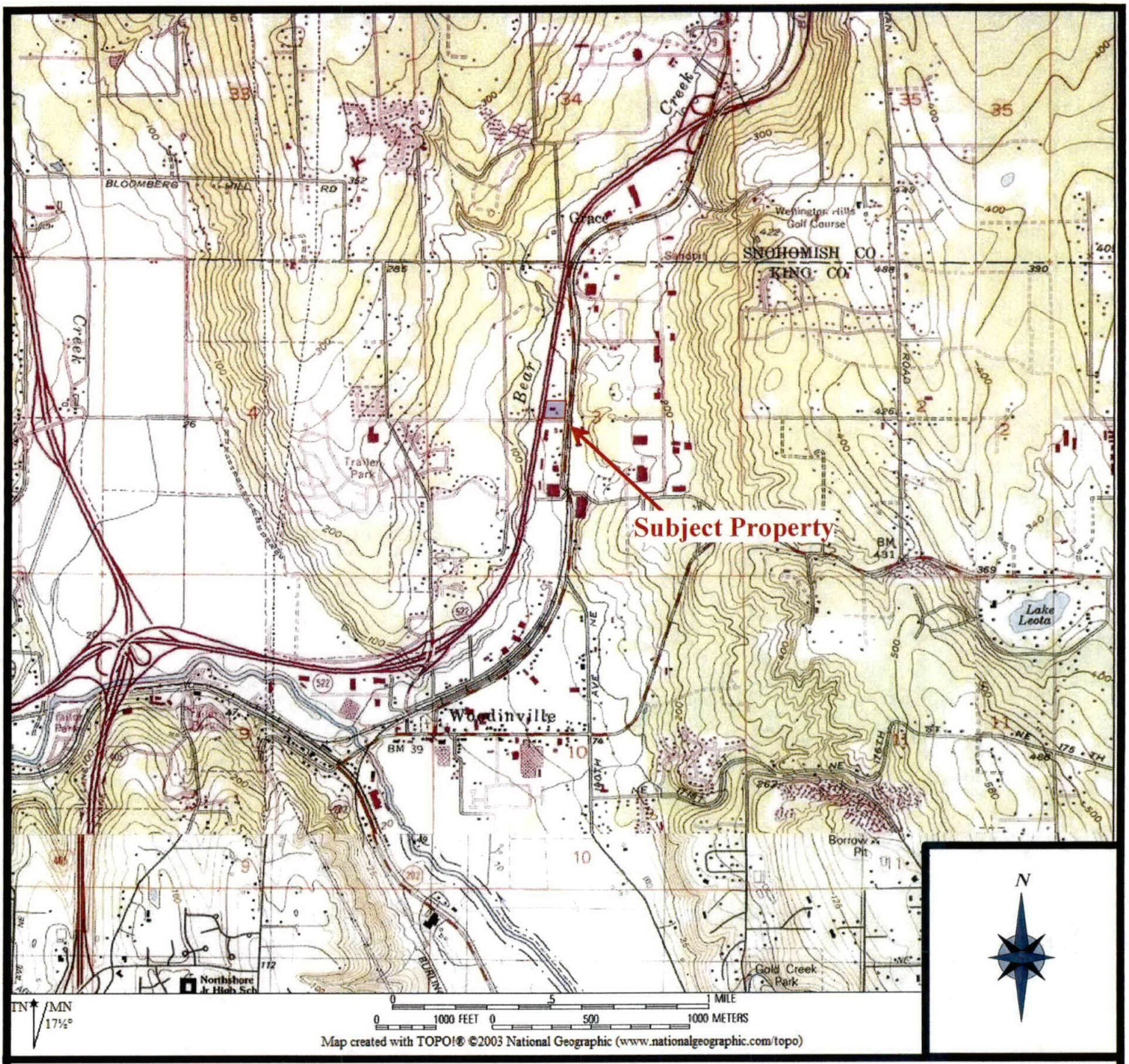
ENVIRONMENTAL ASSOCIATES, INC.

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

VICINITY MAP

Former Auto Auction Site
13820 NE 195th Street
Woodinville, Washington

Job Number:	Date:		Plate:
JN 28260-4	May 2012		1



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

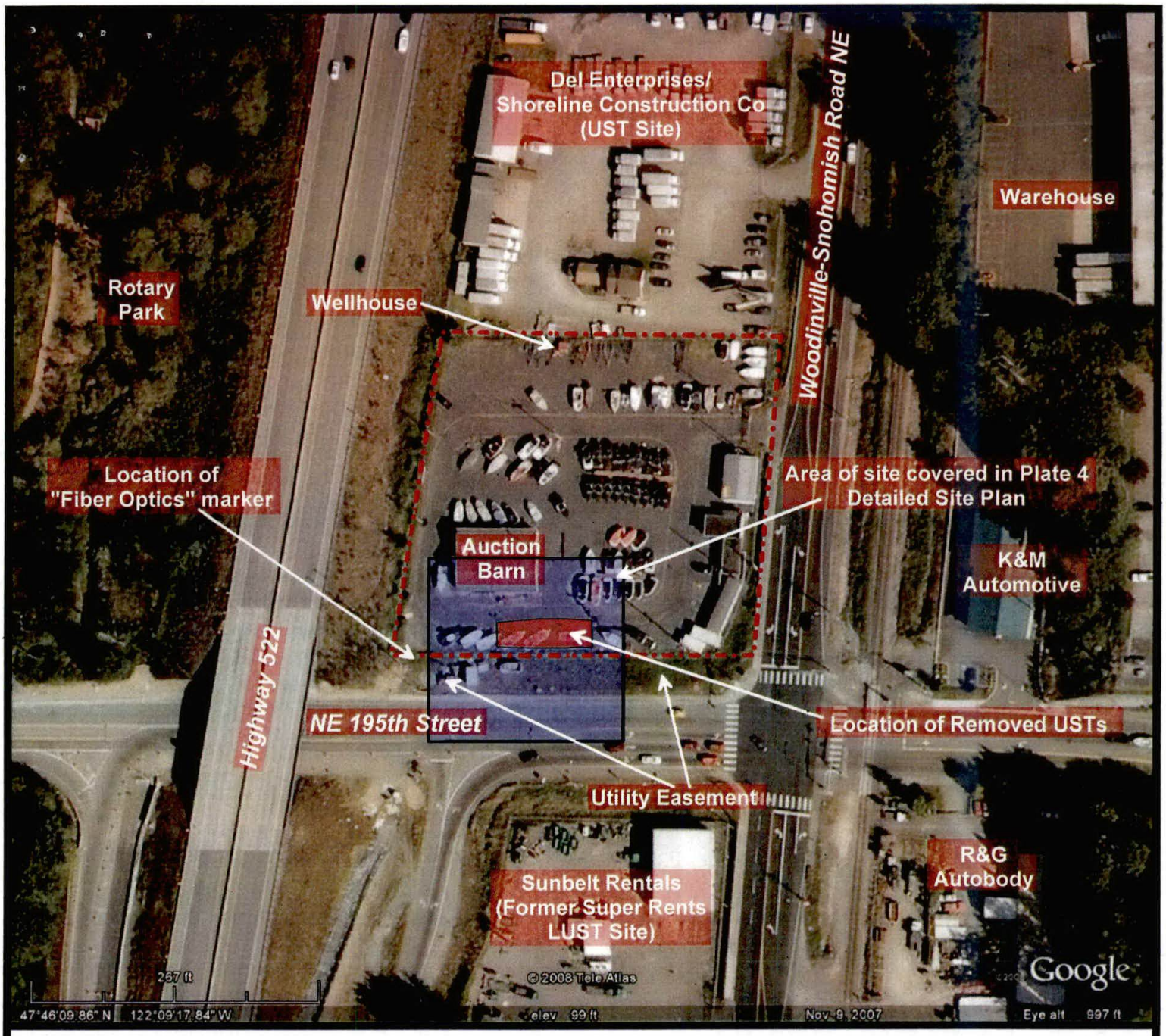
ENVIRONMENTAL ASSOCIATES, INC.

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

TOPOGRAPHIC MAP

Former Auto Auction Site
13820 NE 195th Street
Woodinville, Washington

Job Number:	*Date:*		*Plate:*
JN 28260-4	May 2012		2



Approximate area of subject property.

N

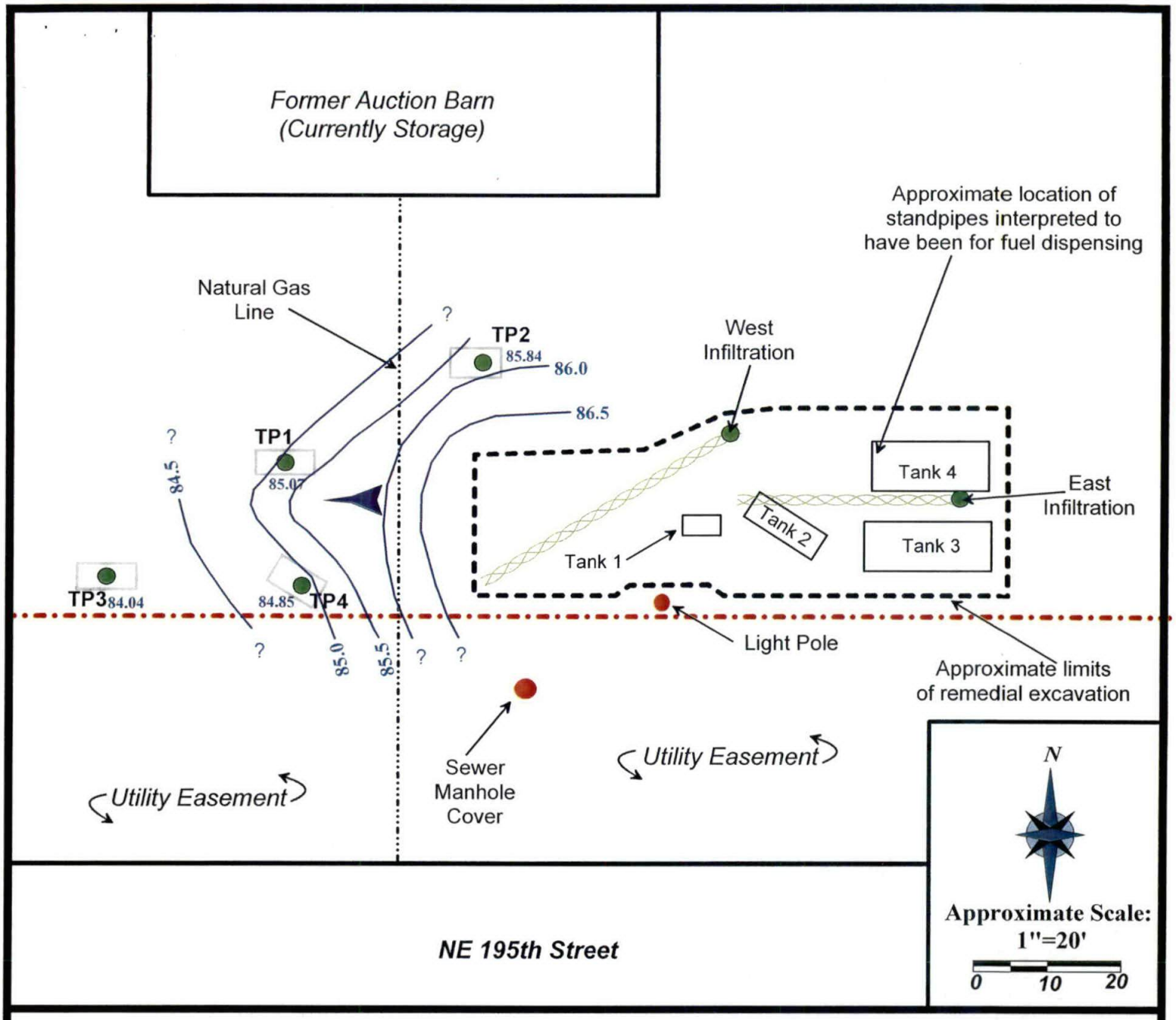
ENVIRONMENTAL ASSOCIATES, INC.

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

SITE PLAN

Former Auto Auction Site
13820 NE 195th Street
Woodinville, Washington

Job Number:	*Date:*		*Plate:*
JN 28260-4	May 2012		3



Approximate subject property border

Approximate location and area of test pit

TP3 — Approximate location and name of vertical standpipe and flush grade monument (i.e. monitoring/infiltration point).

Approximate location and alignment of horizontal slotted 2"-PVC pipe.

Tank 4 — Approximate location and number of removed UST

Approximate groundwater elevation contour lines (as measured 2/23/12)

Inferred direction of groundwater flow

ENVIRONMENTAL ASSOCIATES, INC.

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

DETAILED SITE PLAN

Former Auto Auction Site
13820 NE 195th Street
Woodinville, Washington

Job Number:	Date:		Plate:
JN 28260-4	May 2012		4

APPENDIX-A

Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
e-mail: fbi@isomedia.com

May 25, 2012

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 May 17, 2012 from the Former Woodinville Auto Auction Site 28260-4, F&BI 205265 project. There are 6 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
EAI0525R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 17, 2012 by Friedman & Bruya, Inc. from the Environmental Associates Former Woodinville Auto Auction Site 28260-4, F&BI 205265 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Associates
205265-01	TP1
205265-02	TP2
205265-03	TP3
205265-04	TP4
205265-05	I-E
205265-06	I-W

The NWTPH-Gx and 8021B samples were not preserved with hydrochloric acid, and were analyzed outside of the seven day holding time. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/25/12
Date Received: 05/17/12
Project: Former Woodinville Auto Auction Site 28260-4, F&BI 205265
Date Extracted: 05/21/12
Date Analyzed: 05/21/12

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
TP1 ht 205265-01	<1	<1	<1	<3	160	92
TP2 ht 205265-02	<1	<1	<1	<3	<100	94
TP3 ht 205265-03	<1	<1	<1	<3	<100	93
TP4 ht 205265-04	2.7	1.8	<1	<3	360	93
I-E ht 205265-05	<1	<1	<1	<3	<100	92
I-W ht 205265-06	<1	<1	<1	<3	<100	92
Method Blank 02-0870 MB	<1	<1	<1	<3	<100	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/25/12
Date Received: 05/17/12
Project: Former Woodinville Auto Auction Site 28260-4, F&BI 205265
Date Extracted: 05/18/12
Date Analyzed: 05/21/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-134)
TP1 205265-01	180 x	<250	80
TP2 205265-02	<50	<250	67
TP3 205265-03	<50	<250	77
TP4 205265-04	270 x	<250	80
I-E 205265-05	<50	<250	71
I-W 205265-06	<50	<250	78
Method Blank 02-860 MB	<50	<250	83

Date of Report: 05/25/12
Date Received: 05/17/12
Project: Former Woodinville Auto Auction Site 28260-4, F&BI 205265

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: 205287-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (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 LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	89	65-118
Toluene	ug/L (ppb)	50	92	72-122
Ethylbenzene	ug/L (ppb)	50	91	73-126
Xylenes	ug/L (ppb)	150	92	74-118
Gasoline	ug/L (ppb)	1,000	92	69-134

Date of Report: 05/25/12
Date Received: 05/17/12
Project: Former Woodinville Auto Auction Site 28260-4, F&BI 205265

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	82	90	58-134	9

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.

205265
~~Send Lab Report~~ to Environmental Associates, Inc

SAMPLE CHAIN OF CUSTODY

ME 05/17/12 V2/D03

Send Bill ~~Report~~ To North Woodinville 195, LLC.
Company c/o Chris Fusetti / Sierra Con.
Address 19900 - 144th Ave NE
City, State, ZIP Woodinville, WA 98072
Phone # (425) 455-9025 Fax # (425) 455-2316

SAMPLERS (signature)
PROJECT NAME/NO. Former Woodinville Auto Auction Site
PO # 28260-4
REMARKS * use silica gel clean-up for Diesel

Page # ____ of ____

TURNAROUND TIME
- [X] 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/~~BTEX~~	TPH-Gasoline/~~BTEX~~	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS							Notes
TP1	01 A-C	5/11/2012	14:44	H_2O	3	X	X											Silica-Gel
TP2	02	↓	11:22	↓	3	X	X											↓
TP3	03	↓	13:30	↓	3	X	X											↓
TP4	04	↓	12:22	↓	3	X	X											↓
~~I-E~~	05	↓	9:03	↓	3	X	X											↓
I-W	06	↓	10:26	↓	3	X	X											↓
																		Samples received at 5 °C

(Time Sampled annotation: ND 5/17/12)

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Robert B. Roe	EAI	5/11/2012	
Received by: [signature]	Mircea Stroana	Postal Express	5/17/	
Relinquished by:				
Received by: [signature]	D V D	F & BI	5-17-12	14:10

FORMS\COC\COC.DOC