



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

February 13, 2015
Project No. T-6751

Mr. Brooke Stabbert
SBMC West, LLC
2284 West Commodore Way, Suite 100
Seattle, Washington 98199

Subject: Technical Memorandum
Supplemental Soil Sampling and Revised Lot Line Summary
SBMC West
2360 West Commodore Way
Seattle, Washington
VCP NW 2643

Dear Mr. Stabbert:

We have completed supplemental soil sampling of additional impacted soils encountered during excavation activities related to the new building on the SBMC West site in Seattle, Washington. Local pockets of petroleum impacted soils were encountered following the demolition of a prior building and in areas adjacent to the prior building. Results of supplemental soils analysis is presented in this memo. This memo also transmits the remedial sampling locations and excavations relative to the revised lot lines on the underlying parcels.

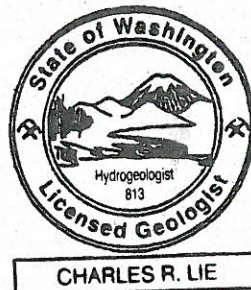
The results of the soil sampling did not change the conceptual site model of a release from the base of the gasoline UST on the SBMC West site and of isolated local surface releases of hydrocarbons. The releases discussed in this report all are consistent with local isolated surface releases of fuel range hydrocarbons.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,

TERRA ASSOCIATES, INC.

Nicolas R. Hoffman
Senior Staff Geologist

Charles R. Lie, L.E.G., L.H.G.
Project Manager

cc: Ms. Diane Escobedo, WDOE NWRO

**Technical Memorandum
Supplemental Soil Sampling and Revised Lot Line Summary
SBMC West
2360 West Commodore Way
Seattle, Washington
VCP NW 2643**

SUMMARY

This memo presents the findings of our supplemental soil sampling at the SBMC West site at 2360 West Commodore Way in Seattle, Washington. The purpose of the soil sampling was to document the removal of petroleum impacted surface soils encountered during construction of a new building on the subject site. We previously prepared a report dated July 1, 2013 that summarizes the remedial investigation and cleanup action that took place on the site in 2012. Subsequent to 2012, one of the prior buildings on-site was demolished and a new building was constructed. The site has had lot line adjustments to create new individual parcels.

Prior soil sampling took place in discrete events to characterize site soils. As part of the Remedial Action that took place in 2012, three separate remedial excavations took place to remove source contaminated soils associated with historical site use. Subsequent to the remedial excavations a series of six groundwater monitoring wells were constructed by Terra Associates Inc. in October of 2012. Quarterly groundwater sampling has occurred since the construction of the wells.

In 2013, an existing building was demolished and a new building was constructed in the southern portion of the site. During excavation activities associated with the new construction, additional petroleum impacted soil was encountered in near-surface soils. The following discussion addresses the additional soils encountered in 2013 and early 2014. As documented in this report, the areas that exhibited hydrocarbon odors were excavated and the soils with incidental odors were removed for off-site disposal.

SCOPE OF WORK

Our scope of work for this project was to characterize, observe, and confirm the removal of petroleum impacted soils on an on-call basis when the excavation contractor, TD Excavating, Inc., encountered soils with a petroleum hydrocarbon odor.

SITE CONDITIONS

Figure 1 is a schematic vicinity map that shows the location of the site relative to the surrounding streets. Figure 2 is a topographic vicinity map that shows the local topography.

Figure 3 is a sample location plan that shows the site and the adjacent parcels together with the existing explorations where sampling of soils and/or groundwater has occurred during the previous RI/FS Study as well as the supplemental sampling discussed in this memo.

The site is currently undergoing several phases of redevelopment. The redevelopment consists of the demolition of the existing 1950s era buildings and construction of new mixed-use commercial buildings. The majority of the site is paved.

FIELD SAMPLING/FIELD OBSERVATIONS

Beginning in November of 2013, TD Excavating, Inc. encountered near-surface soils with a hydrocarbon odor near the northwest corner of the new building footprint. The impacted area was located to the southwest of AOC-1 established in Terra Associates RI/FS study dated July 1, 2013.

We collected our first set of 6 samples on November 11, 2013. On this date, TD Excavating had stockpiled soil with an odor adjacent to footing excavations for the building. Two soil samples were collected from the stockpile, and four confirmation samples were collected from the excavation. Analytical testing indicated impacted soils above MTCA Method A cleanup levels were still present along the western and east end of the excavation.

We returned to the site the following day, November 12, 2013, to observe the removal of remaining impacted soil. Petroleum Impacted Soils along the western property line were left in place. These soils are off of the property owned by SBMC. About two cubic yards of impacted soil was removed from the east end of the excavations until field observations indicated the impacted soil had been removed. Confirmation samples were collected from the west and north sides of the excavation.

TD Excavation encountered additional soils with a hydrocarbon odor while excavating footings to the southeast of AOC-1. We collected a characterization sample on November 13, 2013 to determine if soils were above current cleanup levels. Analytical results of the sample indicated that soils above cleanup levels for gasoline were still present. On November 18, 2013, we observed TD Excavating remove an additional two feet of material from the base of the excavation until field observations indicated impacted soils had been removed. A confirmation sample was collected for laboratory analysis beneath the sample collected on November 13, 2013. A series of five confirmation samples were also collected on the 18th from another location within the central portion of the building footprint where impacted soils were encountered.

Analytical results of confirmation Sample 11-18-1 indicated that additional removal of impacted soils was needed in the excavation to the southeast of AOC-1. On November 19, 2014, we returned to the site and observed TD Excavating remove additional soils in the excavation until PID readings were 0.0 ppm. Three confirmation samples were collected for laboratory analysis.

We returned to the site again on November 25, 2013 to observe another small area of impacted soil uncovered during footing excavations. During our visit, we observed TD Excavating excavate soils in the area until no field indicators of impacted soil remained. A confirmation sample was collected from the excavation base.

Soils displaying a hydrocarbon odor were encountered during footing excavations on November 27, 2013. A representative of Terra Associates Inc. returned to the site and collected a base confirmation sample and a sidewall characterization sample. Laboratory analysis of the samples determined both samples were above current cleanup levels for gasoline range organics. We returned to the site on December 2, 2013 and observed TD Excavating remove soil in the footing excavation area until field indicators of impacted soils remained. A confirmation sample was collected in this area to document our field observations and screening.

During continued excavation activities on December 3 and 4, 2013 another localized area of near-surface soils with a hydrocarbon odor was encountered along the eastern portion of the building footprint. We observed TD Excavating remove soils from this area until no field indicators remained. One base confirmation sample and one sidewall characterization sample were collected for laboratory analysis. Laboratory analysis indicated that the characterization sample collected from the south wall of the excavation was above cleanup levels for gasoline. On December 4, 2013, we observed TD Excavating remove additional soils from this area and collected a confirmation sidewall sample.

TD Excavating encountered impacted soils again on December 5, 2013 while excavating footing subgrades in the central northern portion of the new building footprint. We observed TD Excavating remove soils with an incidental odor until no field indicators of impacted soil remained. Confirmation samples were collected from the base and north sidewall for laboratory analysis.

We returned to the site on January 22, 2014 at the request of the contractor. During excavation related to utility construction a small localized area of soil with a hydrocarbon odor was encountered along the eastern margin of the site. We collected two sidewall confirmation samples and one base confirmation sample for laboratory analysis. The sidewall sample collected from the south side of the excavation was above cleanup for gasoline. The contractor elected to leave the remaining impacted soil in place and address it at a later date.

The contractor contacted us again in July of 2014 when excavation in the area noted on January 22, 2014 resumed. We observed TD Excavating remove an additional one to two yards of impacted material until no field indicators of petroleum impacted soil remained. A confirmation sample was collected from the south sidewall for laboratory analysis.

Most recently, we returned to the site on September 18, 2014. While excavating utility trenches the previous day, the contractor encountered localized pockets of impacted soil along the west property margin. A representative of Terra Associates field screened trench spoils as the trench was excavated. Two confirmation samples were collected for laboratory analysis. The samples were collected from the portions of the trench where the highest PID headspace readings were encountered.

The test results are summarized in the attached Table 1. This table summarizes all of the soil testing done for gasoline and BETX and TPHDx compounds. The analytical test reports for all sampling done in regards to the above noted sampling are attached to this memo as Appendix A. The location of the recent remedial excavations and samples is shown on Figure 5.

DISCUSSION

As described above in Table 1, based on their relatively shallow depth and localized nature, the impacted soils encountered during recent construction activities appear to be a result of surface spills related to past property uses. Subsequent to analysis of Samples 11-18-1 and 11-27-1, additional impacted soils were removed from these locations until no field indication of hydrocarbons remained on November 19, 2013 and December 2, 2013, respectively. The truck tickets show that a total of 292 tons of petroleum impacted soils were removed from the site for disposal at the Regional Disposal Company. The exported soils included soils that were below the cleanup level yet had a slight odor of hydrocarbons. The native site soils are generally wet of optimum moisture content and are not suitable for reuse as structural fill once excavated. Off-site general disposal sites will typically not accept soils with an incidental odor of hydrocarbons regardless of test results.

CONCLUSIONS

Based on our observations, the local pockets of petroleum impacted soils encountered following the demolition of the prior building are consistent with the past land use. None of the areas of the local impacts are documented to have created groundwater contamination. Prior explorations by others and by Terra Associates have shown that with the exception of local area around Monitoring Well MW-1, that no impacts from hydrocarbons are present on-site. The areas with shallow petroleum impacted soils have been addressed. Based on prior groundwater testing and the current supplemental soil sampling, it is our opinion that the upland portion of the site is suitable for a No Further Action in relationship to petroleum impacted soils. Ongoing groundwater monitoring is occurring and is documented in separate reports.

LIMITATIONS

The findings, conclusions, and recommendations presented in this memo are based on our documented site observations, our review of current Ecology databases, our recent local experience, and the analytical testing summarized in this report. Other information related to past site uses or current site conditions may exist. Laboratory and field measurements listed for dates prior to February 2012 were made by others and are reported in this document for information purposes only.

If the existing site uses change, or if further information on the site becomes available, Terra Associates, Inc. should review the information, as it may affect our conclusions.

We prepared our conclusions and recommendations in accordance with generally accepted local professional engineering practices in use at this time. We make no other warranty, either expressed, or implied. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the SBMC West project in Seattle, Washington. This memo is for the exclusive use of SBMC West, LLC and their authorized representatives.

Attachments: Table 1 – Sample Results Soil
Figure 1 – Vicinity Map
Figure 2 – Topographic Vicinity Map
Figure 3 – Exploration Location Plan
Figure 4 – Index Location Plan
Figure 5 – Sample Location Plan AOC-1
Figure 6 – AOC-1 Heating Oil UST Sample Location
Figure 7 – AOC-2 Confirmation Sample Locations
Figure 8 – AOC-3 Confirmation Sample Locations
Appendix A – Laboratory Reports
Appendix B – Soil Disposal Documentation

Table 1
Analytical Test Summary-Soils

Sample ID	Depth	Gasoline Range	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Diesel Range	Oil Range	Type
11-11-1	na	3,400	0.02U	0.02U	3.2	36	2,700	250U	Stockpile-removed
11-11-2	na	460	0.02U	0.02U	0.56	0.78	1,200	250U	Stockpile-removed
11-11-3	2.5	15	0.02U	0.02U	0.032	0.06U	150	250U	Final Base
11-11-4	2.5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-11-5	2.5	1,800	0.1U	0.1U	8.7	19	3,600	250U	Characterization side wall – removed
11-11-6	2.5	10,000	8.6	61	100	610	500	250U	Characterization base – removed
11-12-1	3	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-12-2	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Base
11-13-1	3	1,900	0.02j	0.25	13	27	980	250U	Characterization base – removed
11-18-1	5	160	0.02U	0.02U	0.16	0.28	68	250U	Final Base
11-18-2	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Base
11-18-3	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-18-4	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-18-5	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-18-6	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-19-1	5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-19-2	5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-19-3	5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-25-1	5	29	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
11-27-1	5	130	0.02U	0.02U	0.02U	0.82	1,800	250U	Characterization base – removed
11-27-2	4	1,800	0.02U	0.13	0.1U	8.0	4,300	250U	Characterization side wall – removed
12-2-1	4	4.5	0.02U	0.02U	0.02U	0.06U	130	250U	Final Sidewall
12-3-1	8	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Base
12-3-2	5	81	0.02U	0.02U	0.12	0.29	50U	250U	Characterization side wall – removed
12-4-1	5	2U	0.02U	0.02U	0.02U	0.06U	NT	NT	Final Sidewall
12-5-1	5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
12-5-2	5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Base
12-5-3	5	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall

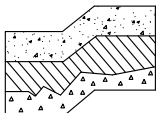
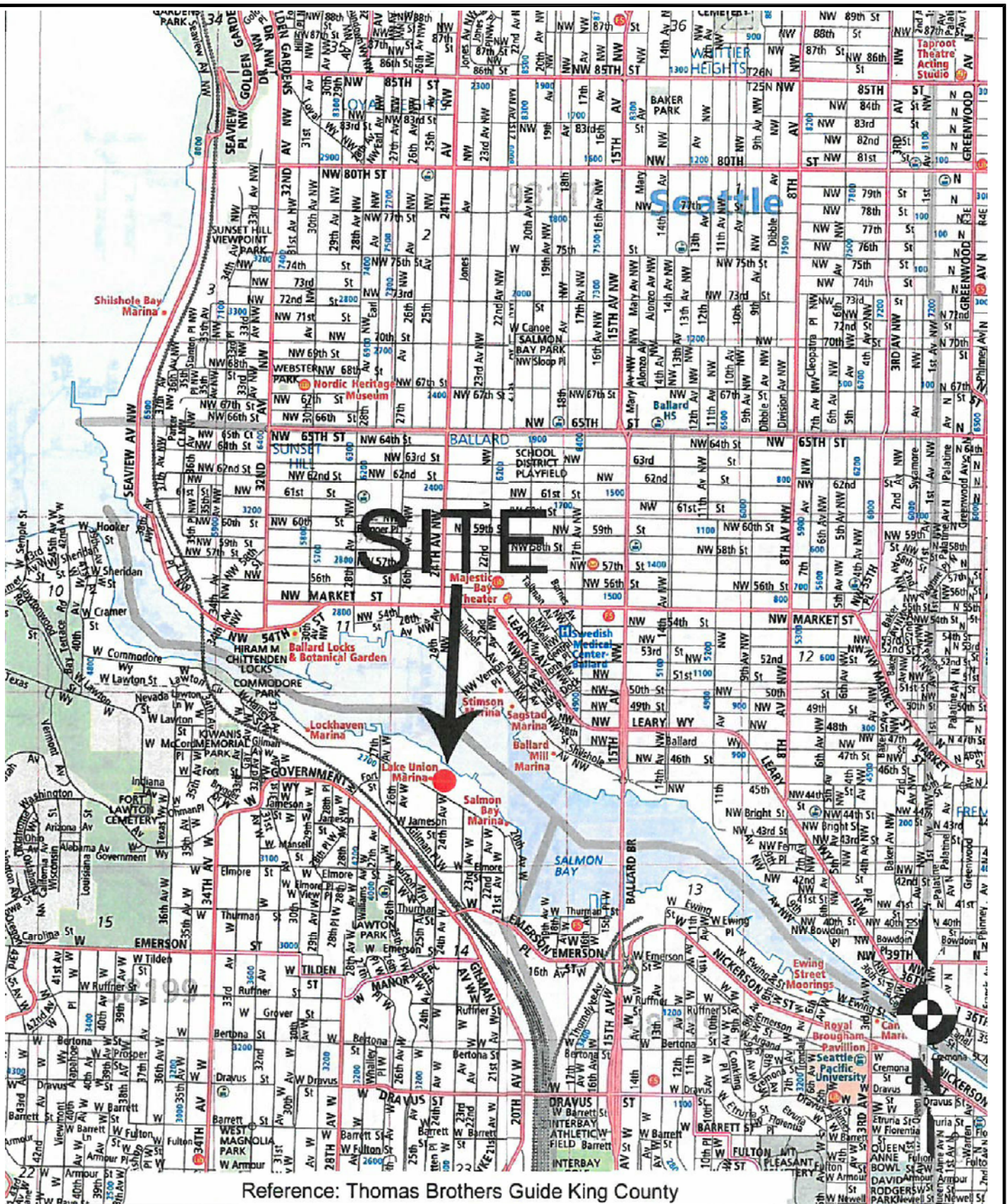
Table 1
Analytical Test Summary-Soils

Sample ID	Depth	Gasoline Range	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Diesel Range	Oil Range	Type
1-22-1	4	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Sidewall
1-22-2	3	2U	0.02U	0.02U	0.02U	0.06U	50U	250U	Final Base
1-22-3	3	44	0.02U	0.02U	0.56	0.27	250	1,400	Characterization side wall – removed
7-16-1	3	51	0.02U	0.02U	0.02U	0.079	160	250U	Final Sidewall
140918-1.0-S-2	1	3.1	0.02U	0.02U	0.02U	0.06U	67	830	Final Sidewall
140918-4.5-B5	4.5	2U	0.02U	0.035	0.19	0.4	370	250U	Final Base
MTCA Method A		30 (100)	0.03	7.0	6.0	9.0	2,000	2,000	

Notes: All units are mg/kg based on a dry weight basis.

U modifier indicates that the analyte was not present at the stated numerical Practical Quantitation Limit (PQL).

PQL varies based on sample moisture content.



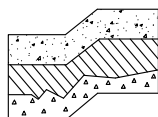
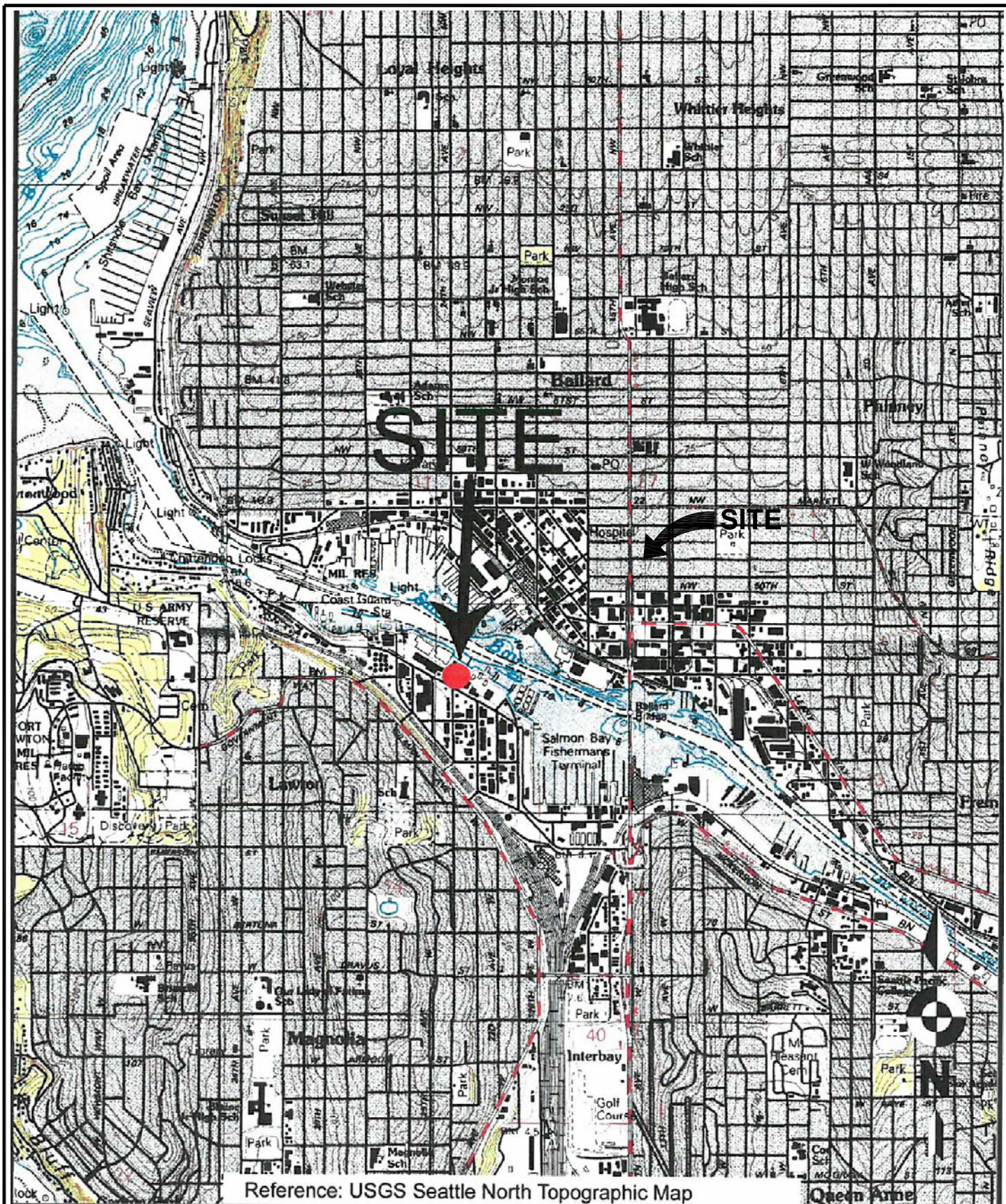
**Terra
Associates, Inc.**
Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

VICINITY MAP
SBMC WEST
SEATTLE, WASHINGTON

Proj. No. T-6751

Date FEB 2015

Figure 1



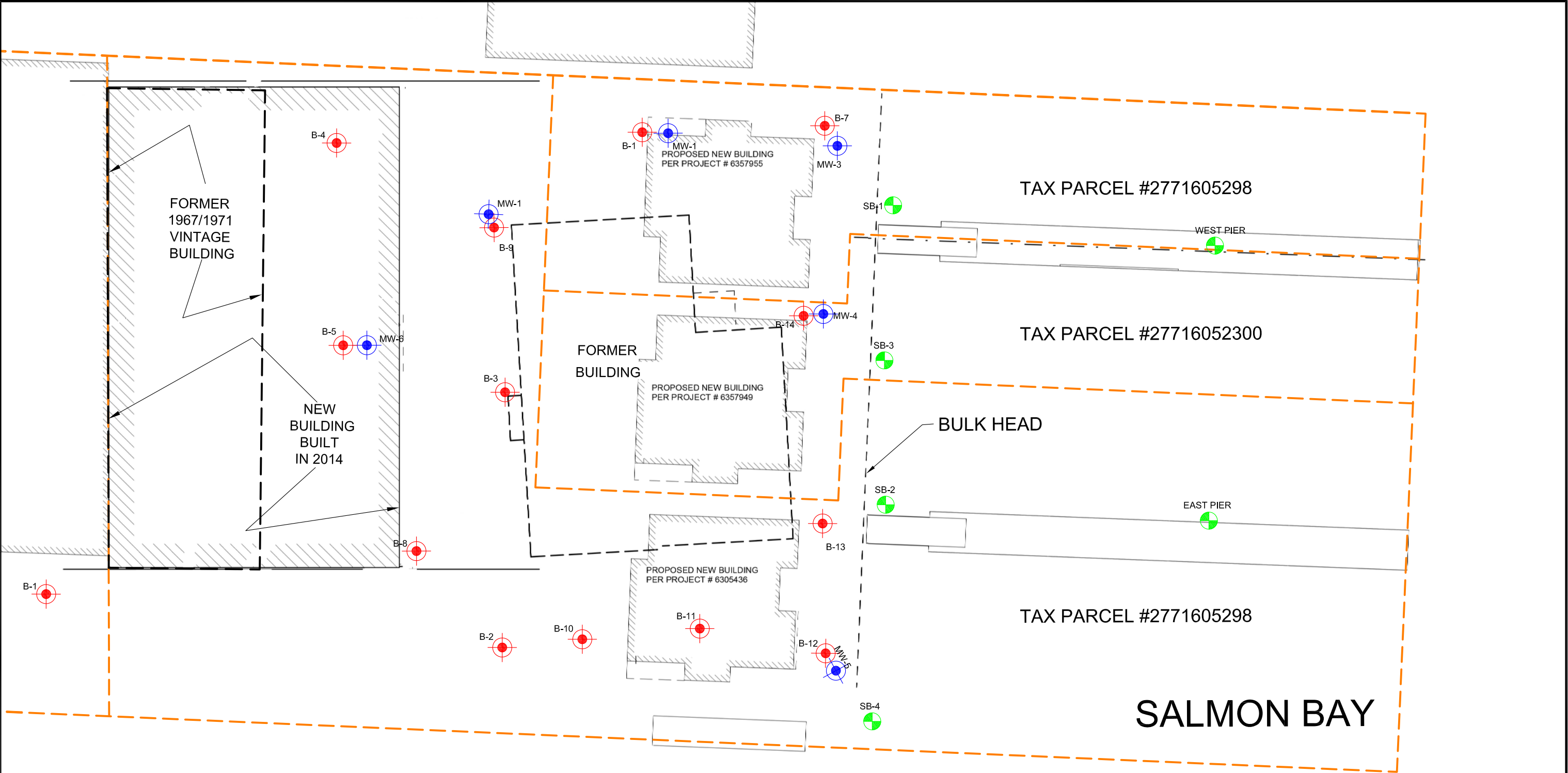
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Geology and
Environmental Earth Sciences

**TOPOGRAPHIC VICINITY MAP
SBMC WEST
SEATTLE, WASHINGTON**

Proj. No.T-6751

Date FEB 2015

Figure 2



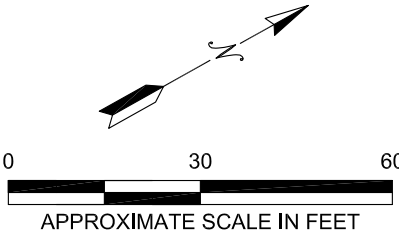
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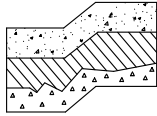
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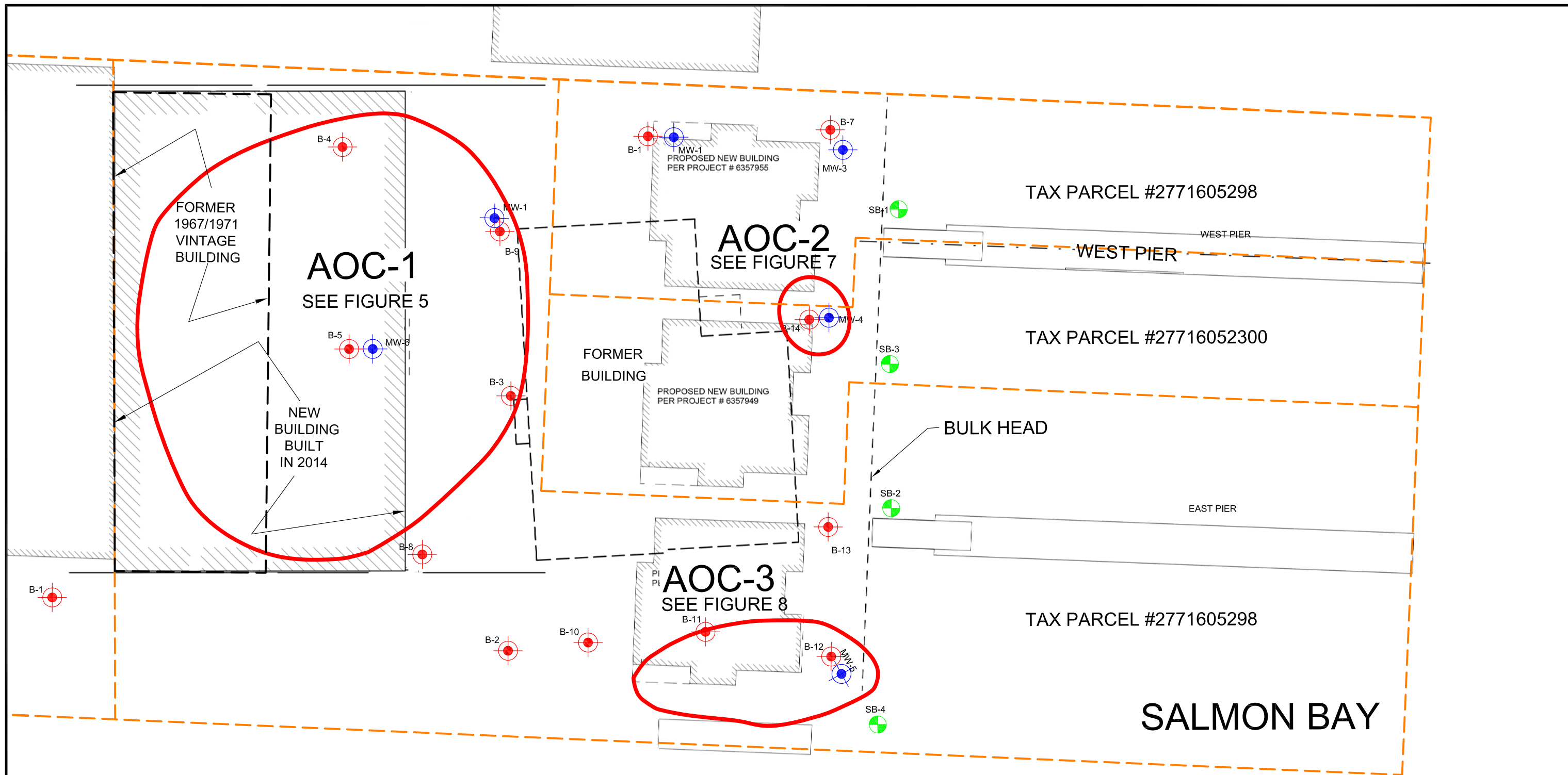
LEGEND:

- APPROXIMATE AREA OF CONTAMINATION
- APPROXIMATE LOCATION OF PROPERTY LINES
- APPROXIMATE LOCATION OF FORMER BUILDING
- APPROXIMATE LOCATION BORINGS BY TERRA
- APPROXIMATE LOCATION OF BORINGS BY EAI
- APPROXIMATE LOCATION OF SURFACE WATER SAMPLES

REFERENCE: BARGHAUSEN CONSULTING ALTA SURVEY DATED 7/9/2008



 Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences	EXPLORATION LOCATION PLAN SBMC WEST SEATTLE, WASHINGTON		
	Proj. No.T-6751	Date FEB 2015	Figure 3



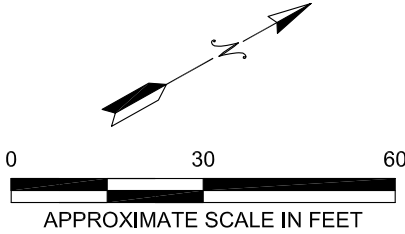
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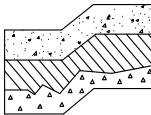
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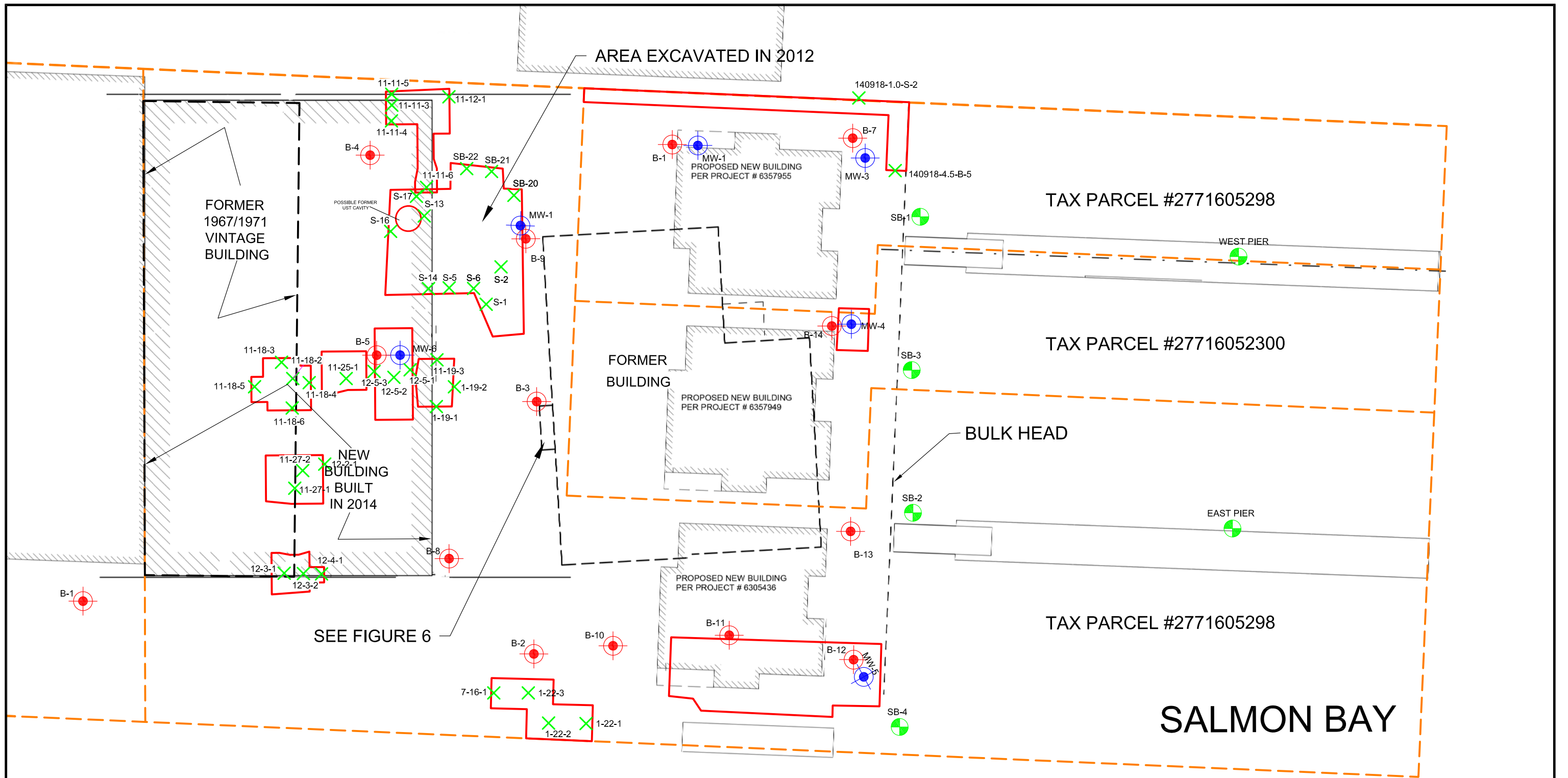
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- - - APPROXIMATE LOCATION OF PROPERTY LINES
- - - APPROXIMATE LOCATION OF FORMER BUILDING
- APPROXIMATE LOCATION BORINGS BY TERRA
- APPROXIMATE LOCATION OF BORINGS BY EAI
- APPROXIMATE LOCATION OF SURFACE WATER SAMPLES

REFERENCE: BARGHAUSEN CONSULTING ALTA SURVEY DATED 7/9/2008



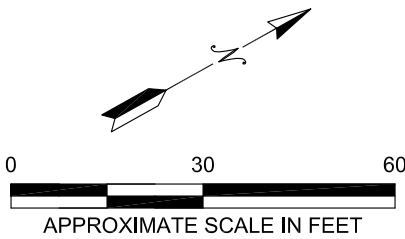
 Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences	INDEX LOCATION PLAN SBMC WEST SEATTLE, WASHINGTON		
	Proj. No.T-6751	Date FEB 2015	Figure 4



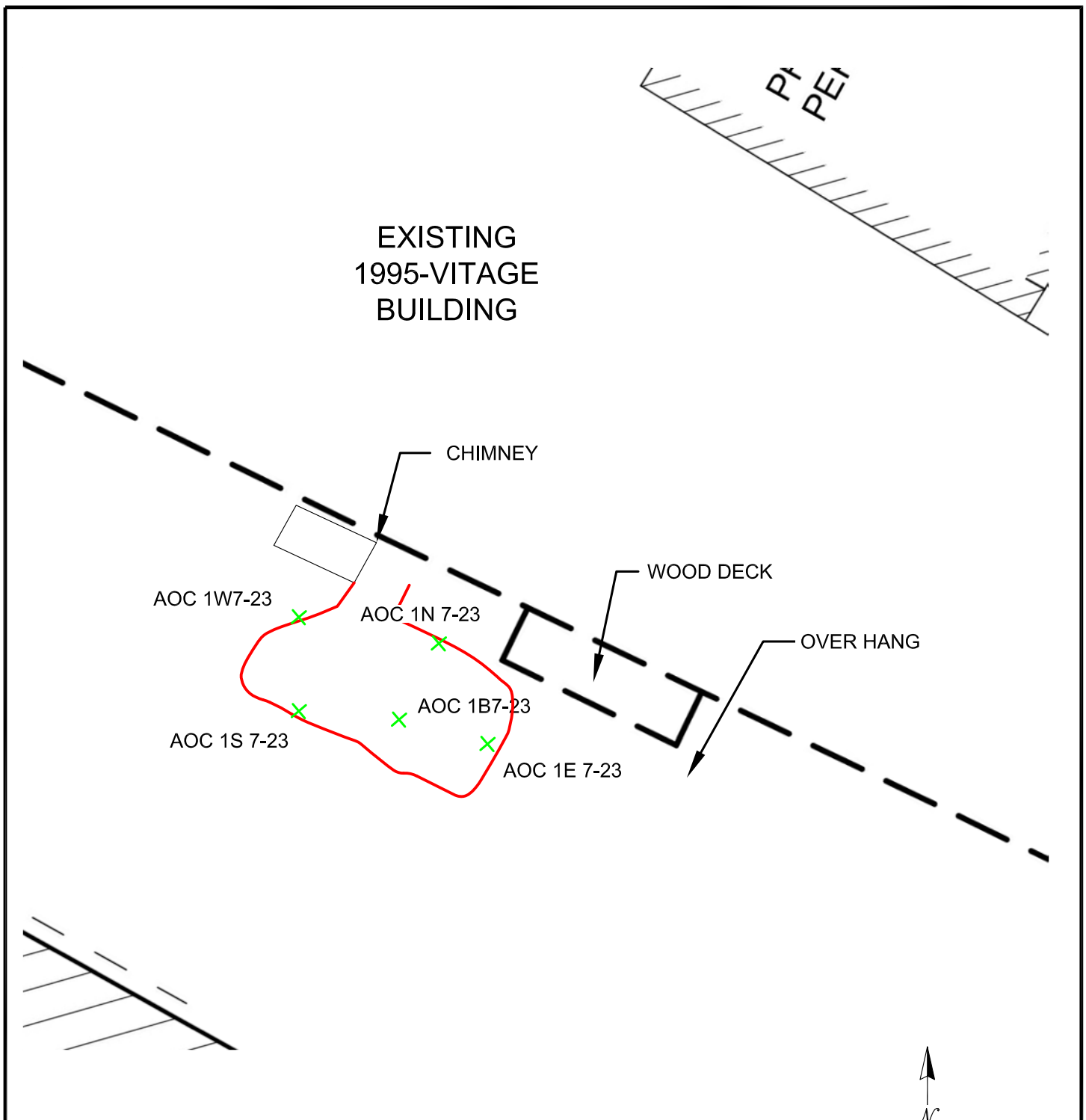
NOTE:
 FOR AREA EXCAVATED IN 2012 ONLY FINAL
 CONFIRMATION SAMPLES ARE SHOWN THIS SITE
 PLAN IS SCHEMATIC. ALL LOCATIONS AND
 DIMENSIONS ARE APPROXIMATE. IT IS INTENDED
 FOR REFERENCE ONLY AND SHOULD NOT BE USED
 FOR DESIGN OR CONSTRUCTION PURPOSES.

- LEGEND:**
- X APPROXIMATE LOCATION OF SOIL SAMPLES
 - ⊗ APPROXIMATE LOCATION OF SURFACE WATER SAMPLES
 - ⊗ APPROXIMATE LOCATION OF MONITORING WELL
 - ⊗ APPROXIMATE LOCATION OF BORING BY OTHERS
 - APPROXIMATE EXCAVATION LIMITS
 - APPROXIMATE LOCATION OF PROPERTY LINES
 - APPROXIMATE LOCATION OF FORMER BUILDING

REFERENCE: BARGHAUSEN CONSULTING ALTA SURVEY DATED 7/9/2008



 Terra Associates, Inc. <small>Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences</small>	SAMPLE LOCATION PLAN AOC-1 SBMC WEST SEATTLE, WASHINGTON		
	Proj. No.T-6751	Date FEB 2015	Figure 5



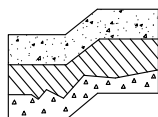
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LEGEND:

- X APPROXIMATE LOCATION OF SURFACE WATER SAMPLES
- APPROXIMATE FINAL EXCAVATION AREA

REFERENCE: BARGHAUSEN CONSULTING ALTA SURVEY DATED 7/9/2008



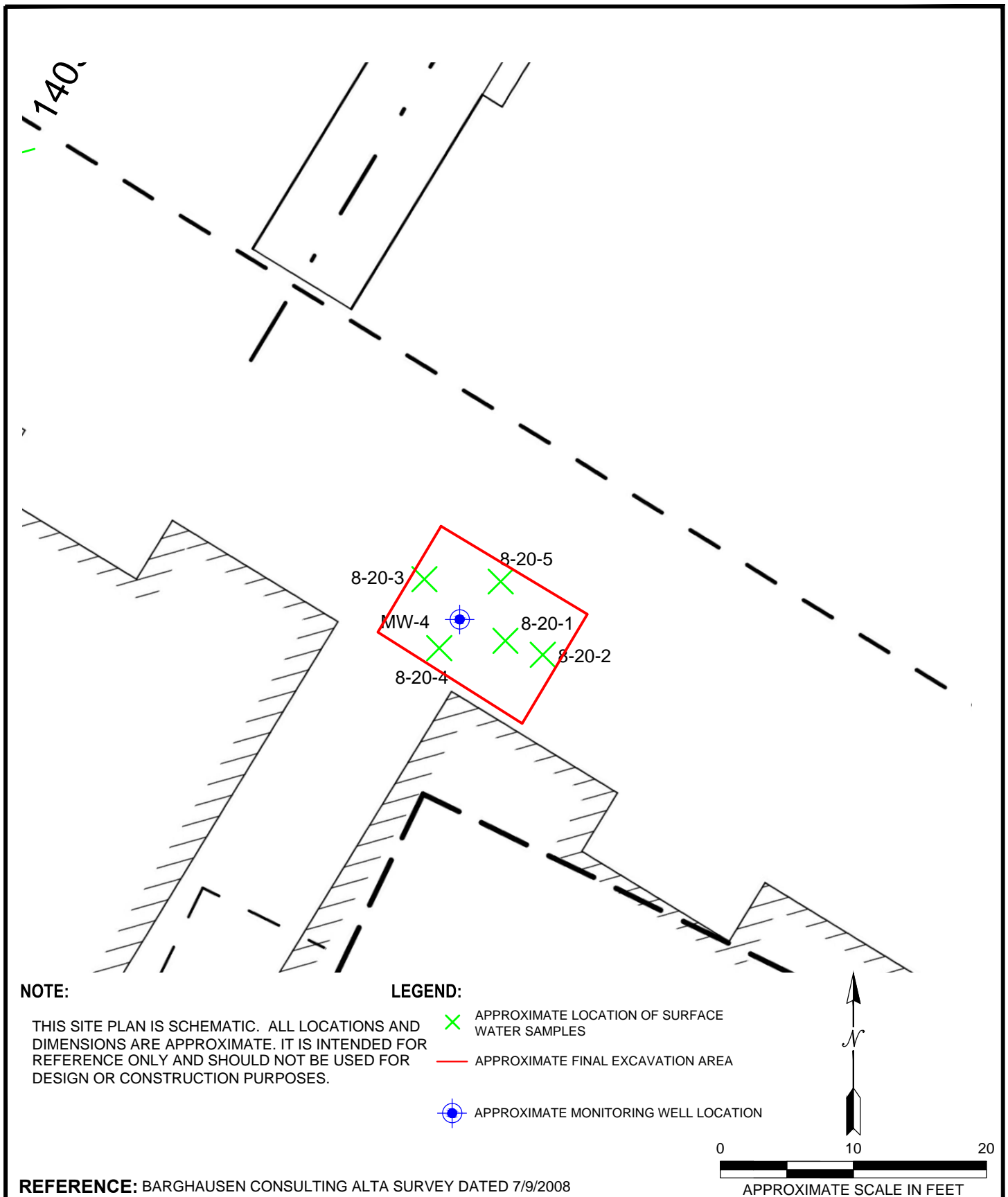
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 Environmental Earth Sciences

**AOC-1 HEATING OIL UST SAMPLE LOCATION
 SBMC WEST
 SEATTLE, WASHINGTON**

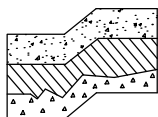
Proj. No.T-6751

Date FEB 2015

Figure 6



REFERENCE: BARGHAUSEN CONSULTING ALTA SURVEY DATED 7/9/2008



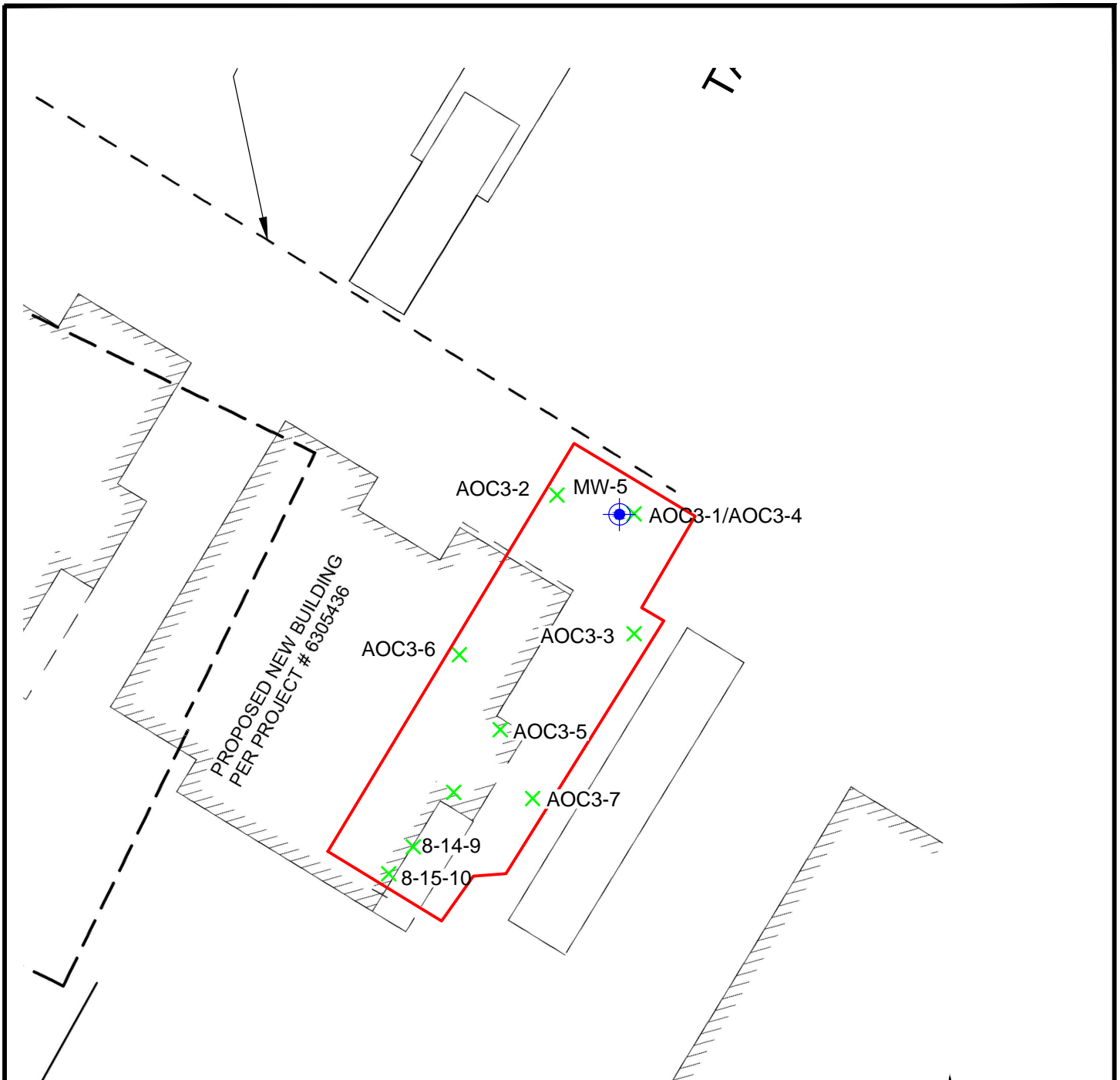
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Environmental Earth Sciences

**AOC-2 CONFIRMATION SAMPLE LOCATIONS
SBMC WEST
SEATTLE, WASHINGTON**

Proj. No.T-6751

Date FEB 2015

Figure 7

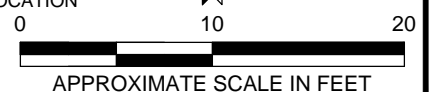


NOTE:

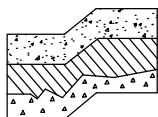
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LEGEND:

- X APPROXIMATE LOCATION OF SURFACE WATER SAMPLES
- APPROXIMATE FINAL EXCAVATION AREA
- ⊕ APPROXIMATE MONITORING WELL LOCATION



REFERENCE: BARGHAUSEN CONSULTING ALTA SURVEY DATED 7/9/2008



Terra Associates, Inc.
 Consultants in Geotechnical Engineering
 Geology and
 Environmental Earth Sciences

**AOC-3 CONFIRMATION SAMPLE LOCATIONS
 SBMC WEST
 SEATTLE, WASHINGTON**

Proj. No.T-6751

Date FEB 2015

Figure 8

APPENDIX A

LABORATORY REPORTS

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.

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Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 13, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 11, 2013 from the 6751, F&BI 311197 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Nick Hoffman
NAA1113R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 11, 2013 by Friedman & Bruya, Inc. from the Terra Associates 6751, F&BI 311197 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
311197 -01	11-11-1
311197 -02	11-11-2
311197 -03	11-11-3
311197 -04	11-11-4
311197 -05	11-11-5

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13
 Date Received: 11/11/13
 Project: 6751, F&BI 311197
 Date Extracted: 11/11/13
 Date Analyzed: 11/11/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
 FOR BENZENE, TOLUENE, ETHYLBENZENE,
 XYLENES AND TPH AS GASOLINE
 USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
11-11-1 311197-01	<0.02	<0.02	3.2	36	3,400	ip
11-11-2 311197-02	<0.02	<0.02	0.56	0.78	460	118
11-11-3 311197-03	<0.02	<0.02	0.032	<0.06	15	92
11-11-4 311197-04	<0.02	<0.02	<0.02	<0.06	<2	94
11-11-5 311197-05 1/5	<0.1	<0.1	8.7	19	1,800	ip
Method Blank 03-2289 MB	<0.02	<0.02	<0.02	<0.06	<2	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13
Date Received: 11/11/13
Project: 6751, F&BI 311197
Date Extracted: 11/11/13
Date Analyzed: 11/11/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
11-11-1 311197-01	2,700	<250	91
11-11-2 311197-02	1,200	<250	87
11-11-3 311197-03	150	<250	86
11-11-4 311197-04	<50	<250	90
11-11-5 311197-05	3,600	<250	91
Method Blank 03-2326 MB	<50	<250	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13

Date Received: 11/11/13

Project: 6751, F&BI 311197

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

Laboratory Code: 311188-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	84	66-121
Toluene	mg/kg (ppm)	0.5	88	72-128
Ethylbenzene	mg/kg (ppm)	0.5	88	69-132
Xylenes	mg/kg (ppm)	1.5	88	69-131
Gasoline	mg/kg (ppm)	20	90	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13

Date Received: 11/11/13

Project: 6751, F&BI 311197

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

Laboratory Code: 311179-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	101	99	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	101	58-147

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.

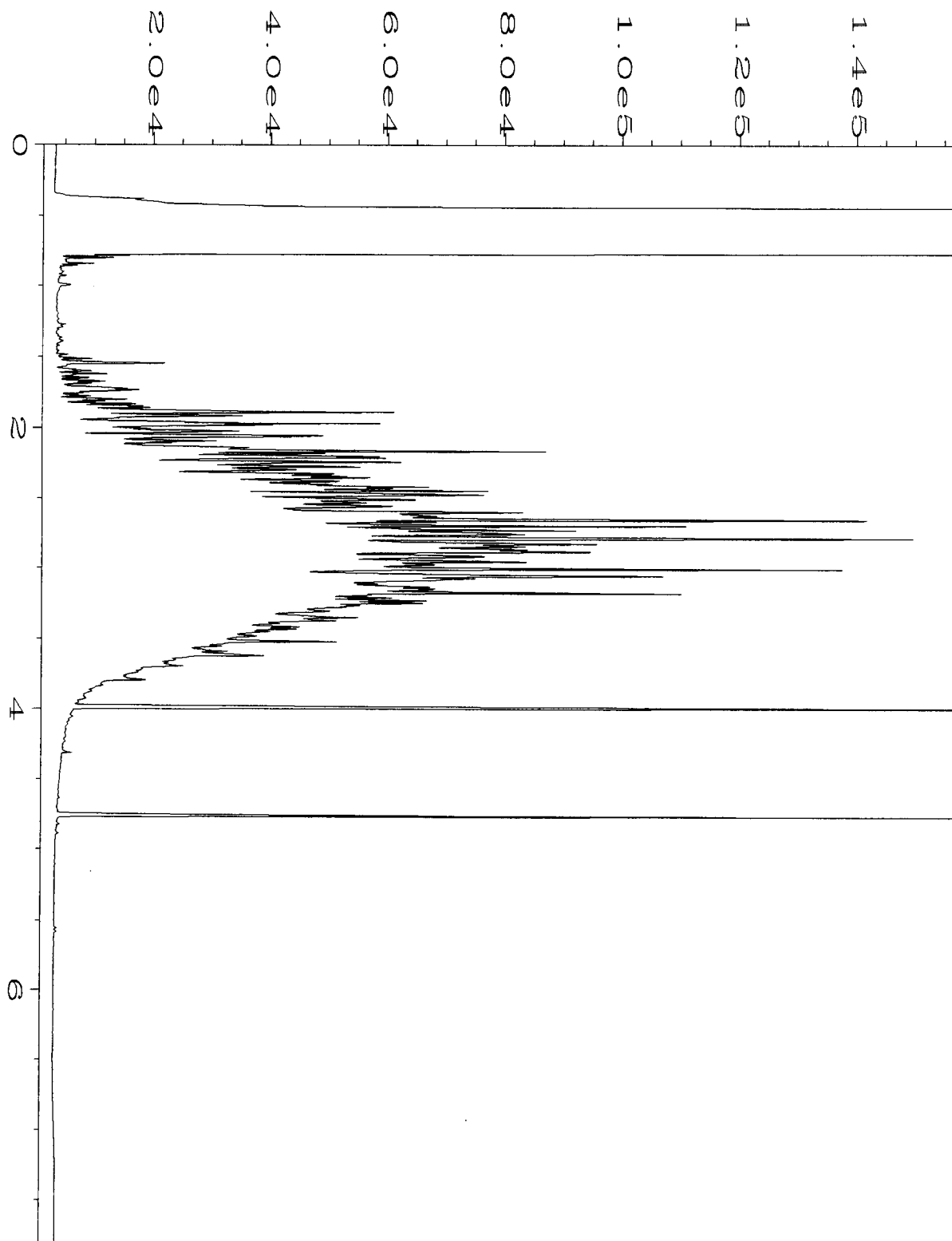
pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.

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

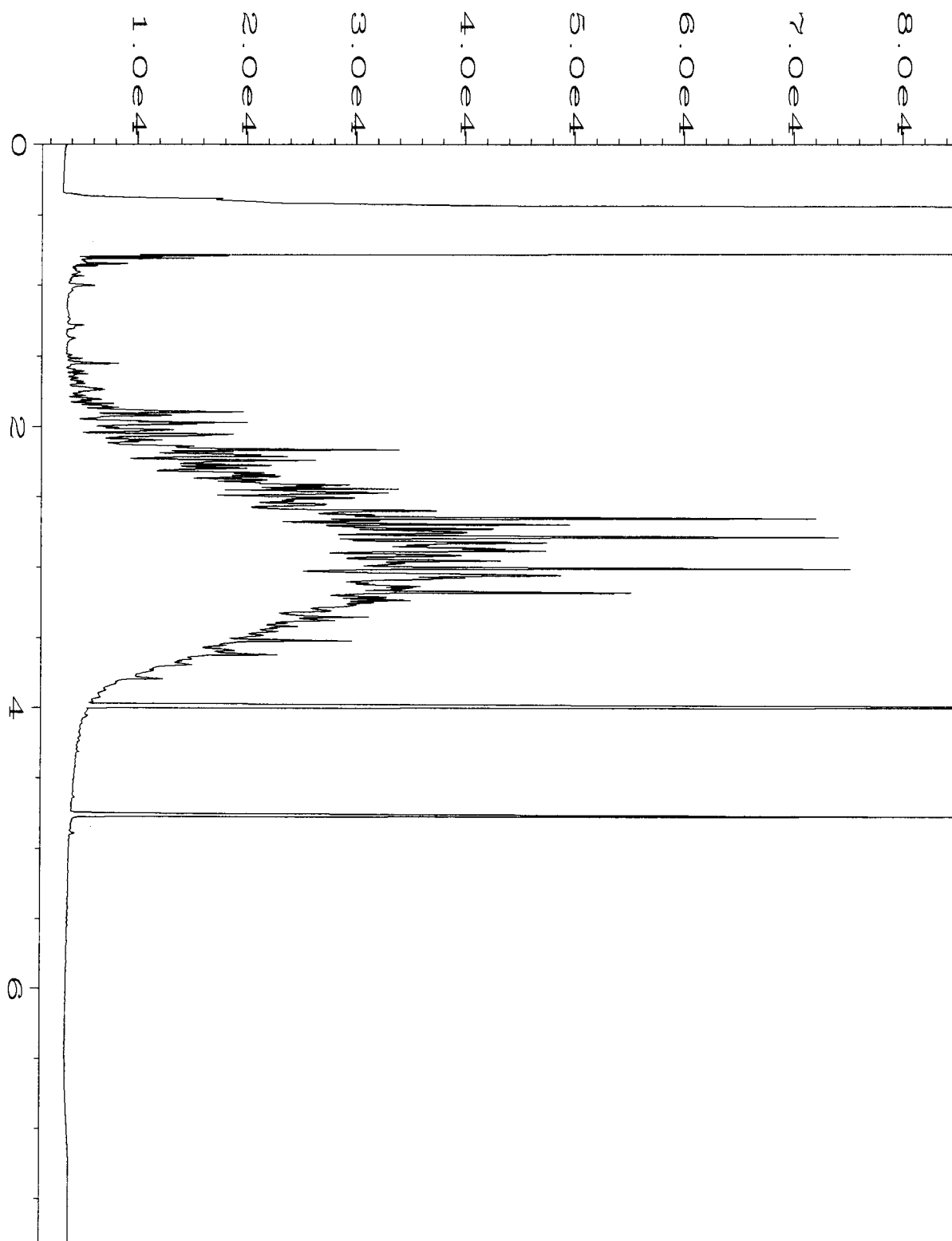
ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

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

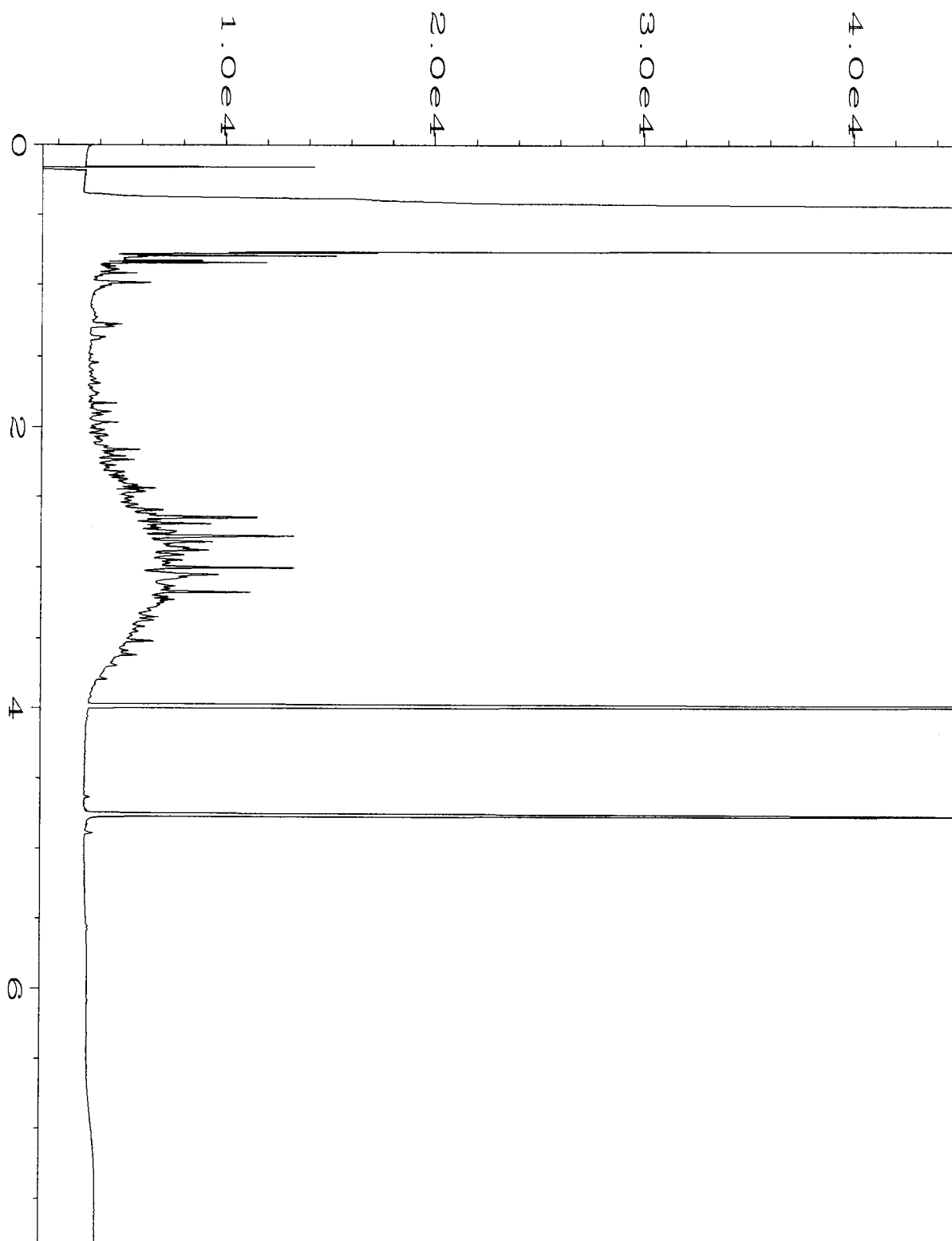
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



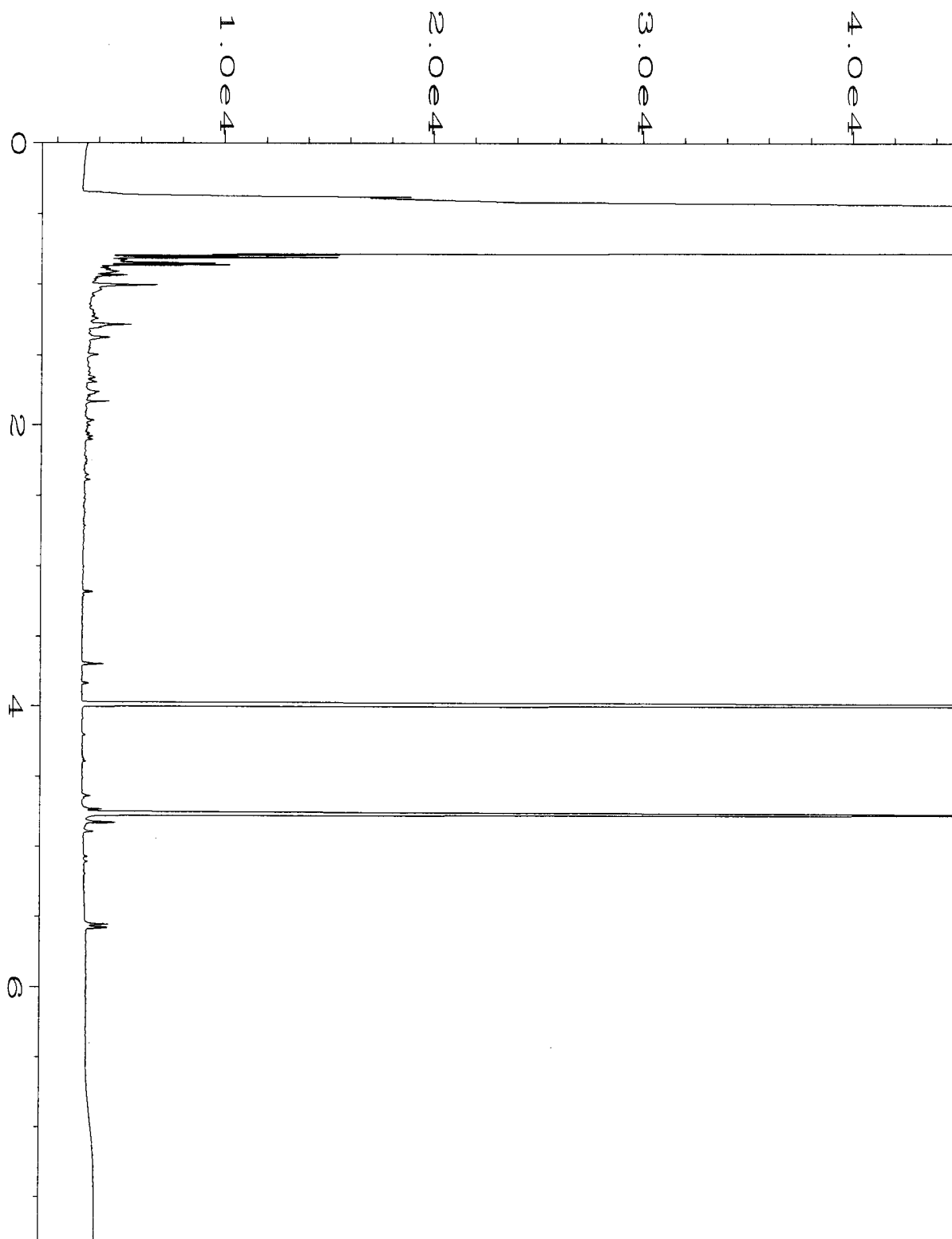
Data File Name	: C:\HPCHEM\6\DATA\11-11-13\014F0301.D	Page Number	: 1
Operator	: mwdl	Vial Number	: 14
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 311197-01	Sequence Line	: 3
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 11 Nov 13 11:58 AM	Analysis Method	: BAKEOUT.MTH
Report Created on:	12 Nov 13 03:51 PM		



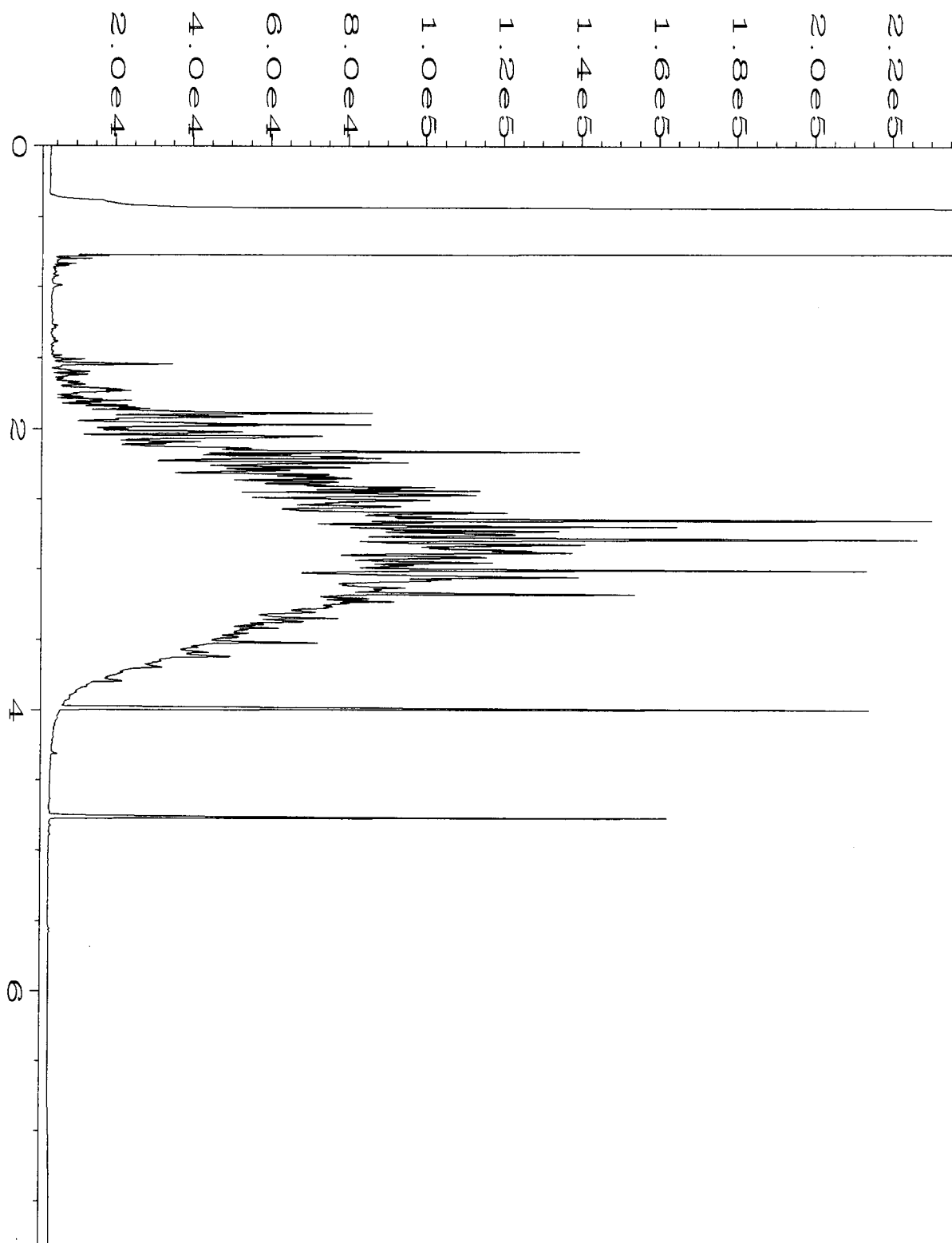
Data File Name	: C:\HPCHEM\6\DATA\11-11-13\015F0301.D	Page Number	: 1
Operator	: mwdl	Vial Number	: 15
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 311197-02	Sequence Line	: 3
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 11 Nov 13 12:11 PM	Analysis Method	: BAKEOUT.MTH
Report Created on:	12 Nov 13 03:51 PM		



Data File Name	: C:\HPCHEM\6\DATA\11-11-13\016F0301.D	Page Number	: 1
Operator	: mwdl	Vial Number	: 16
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 311197-03	Sequence Line	: 3
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 11 Nov 13 12:23 PM	Analysis Method	: BAKEOUT.MTH
Report Created on:	12 Nov 13 03:51 PM		



Data File Name	: C:\HPCHEM\6\DATA\11-11-13\017F0301.D	Page Number	: 1
Operator	: mwdl	Vial Number	: 17
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 311197-04	Sequence Line	: 3
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 11 Nov 13 12:35 PM	Analysis Method	: BAKEOUT.MTH
Report Created on:	12 Nov 13 03:51 PM		



Data File Name	: C:\HPCHEM\6\DATA\11-11-13\018F0301.D	Page Number	: 1
Operator	: mwdl	Vial Number	: 18
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 311197-05	Sequence Line	: 3
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 11 Nov 13 12:48 PM	Analysis Method	: BAKEOUT.MTH
Report Created on:	12 Nov 13 03:51 PM		

311197

SAMPLE CHAIN OF CUSTODY

ME 11-011-13

VS2/NO1

Send Report To Chuck LieCompany Terra Associates IncAddress 12525 Wilows Rd Suite 101City, State, ZIP Kirkland, WA 98034Phone # 425 821-7777 Fax # 425 821-4334SAMPLES (signature) Chuck LiePROJECT NAME/NO. 6751

PO #

6751

REMARKS

CC: NHoffman@terra-associates.com
with resultsPage # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH Same Day PostRush charges authorized by: Chuck Lie

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

ANALYSES REQUESTED.

Sample ID

Lab ID

Date

Time

Sample Type

of containers

TPH-Diesel

TPH-Gasoline

BTEX by 8021B

VOCs by 8260

SVOCs by 8270

HFS

Notes

11-11-1	01 A-E	11/11/13	9:15	soil	5	X	X	X										
11-11-2	02	11/11/13	9:05	/	5	X	X	X										
11-11-3	03	11/11/13	9:55	/	5	X	X	X										
11-11-4	04	11/11/13	9:45	/	5	X	X	X										
11-11-5	05	11/11/13	9:35	/	5	X	X	X										

Friedman & Bruya, Inc.
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

Relinquished by: Chuck Lie

PRINT NAME

Relinquished by: Nicholas R. Hoffman

COMPANY

Relinquished by: TAT

DATE

Relinquished by: 11/11/13

TIME

Relinquished by: 9:35Received by: mlf/mwReceived by: Nhan PhanReceived by: FEBReceived by: 11/11/13Received by: 0935Samples received at 6 09

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

November 13, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 11, 2013 from the 6751, F&BI 311203 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Nick Hoffman
NAA1113R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 11, 2013 by Friedman & Bruya, Inc. from the Terra Associates 6751, F&BI 311203 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
311203 -01

Terra Associates
11-11-6

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13
Date Received: 11/11/13
Project: 6751, F&BI 311203
Date Extracted: 11/11/13
Date Analyzed: 11/11/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
11-11-6 311203-01 1/100	8.6	61	100	610	10,000	104
Method Blank 03-2289 MB	<0.02	<0.02	<0.02	<0.06	<2	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13
Date Received: 11/11/13
Project: 6751, F&BI 311203
Date Extracted: 11/11/13
Date Analyzed: 11/11/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
11-11-6 311203-01	500 x	<250	89
Method Blank 03-2326 MB	<50	<250	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13

Date Received: 11/11/13

Project: 6751, F&BI 311203

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

Laboratory Code: 311188-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	84	66-121
Toluene	mg/kg (ppm)	0.5	88	72-128
Ethylbenzene	mg/kg (ppm)	0.5	88	69-132
Xylenes	mg/kg (ppm)	1.5	88	69-131
Gasoline	mg/kg (ppm)	20	90	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/13/13

Date Received: 11/11/13

Project: 6751, F&BI 311203

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

Laboratory Code: 311179-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	101	99	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	101	58-147

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.

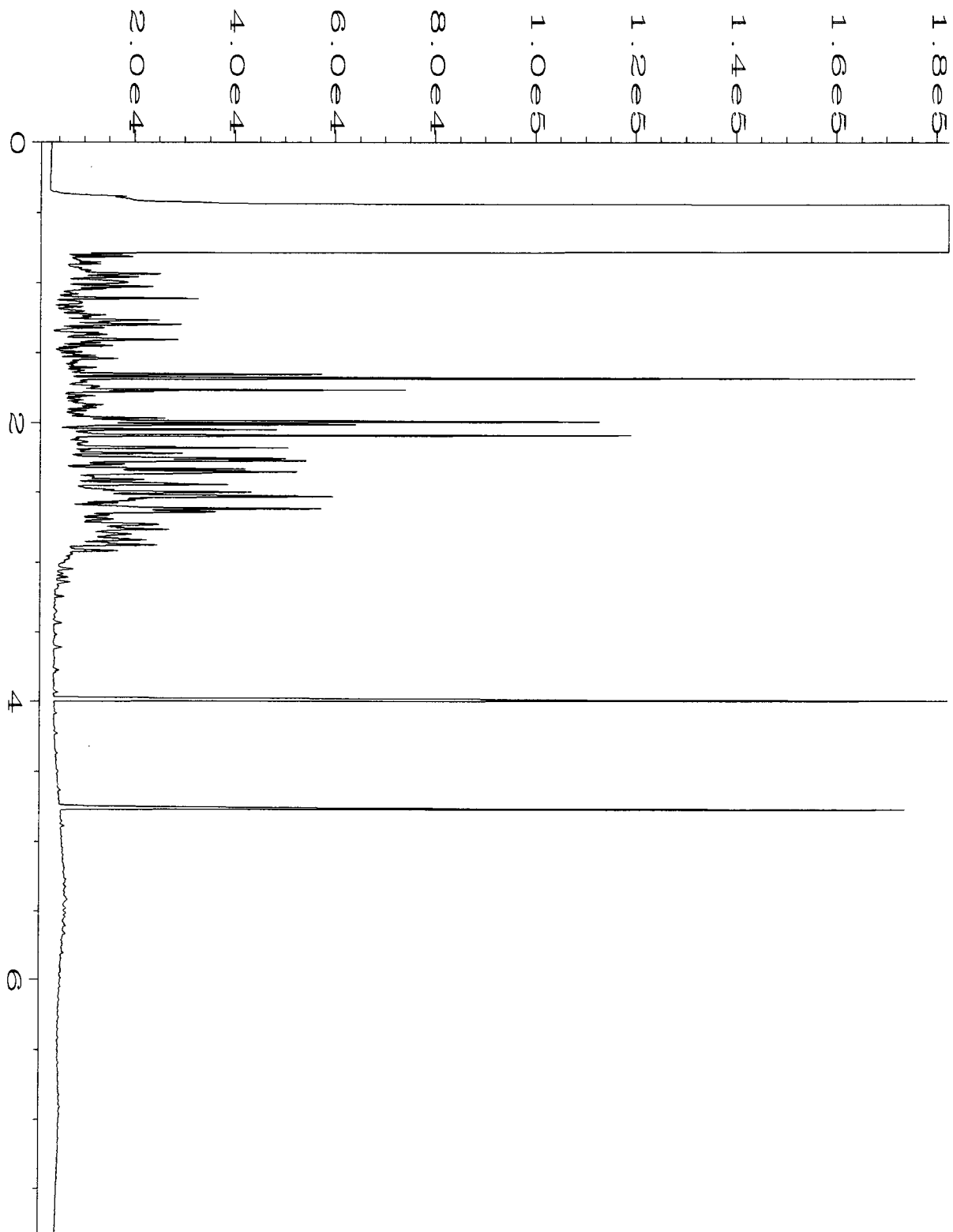
pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.

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.



Data File Name	: C:\HPCHEM\6\DATA\11-11-13\048F0601.D	Page Number	: 1
Operator	: mwdl	Vial Number	: 48
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 311203-01	Sequence Line	: 6
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 11 Nov 13 08:25 PM	Analysis Method	: BAKEOUT.MTH
Report Created on:	12 Nov 13 09:36 AM		

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

November 14, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 12, 2013 from the SBMC, F&BI 311230 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Nick Hoffman
NAA1114R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 12, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 311230 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
311230 -01	11-12-1
311230 -02	11-12-2

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/14/13
Date Received: 11/12/13
Project: SBMC, F&BI 311230
Date Extracted: 11/12/13
Date Analyzed: 11/12/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
11-12-1 311230-01	<0.02	<0.02	<0.02	<0.06	<2	94
11-12-2 311230-02	<0.02	<0.02	<0.02	<0.06	<2	97
Method Blank 03-2291 MB	<0.02	<0.02	<0.02	<0.06	<2	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/14/13
Date Received: 11/12/13
Project: SBMC, F&BI 311230
Date Extracted: 11/12/13
Date Analyzed: 11/12/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
11-12-1 311230-01	<50	<250	101
11-12-2 311230-02	<50	<250	100
Method Blank 03-2336 MB	<50	<250	93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/14/13

Date Received: 11/12/13

Project: SBMC, F&BI 311230

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

Laboratory Code: 311186-07 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	0.022	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	3	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	84	66-121
Toluene	mg/kg (ppm)	0.5	86	72-128
Ethylbenzene	mg/kg (ppm)	0.5	86	69-132
Xylenes	mg/kg (ppm)	1.5	86	69-131
Gasoline	mg/kg (ppm)	20	95	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/14/13

Date Received: 11/12/13

Project: SBMC, F&BI 311230

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

Laboratory Code: 311222-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	93	89	73-135	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	93	74-139

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.

VS1/201

Phone # 425 821-7777 Fax # 821-4334

Page # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)

☒ RUSH ASAP

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

FORMS\COCC\COCC.DOC

DATE	TIME
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11/12/13	13:45
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11	11
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Samples received at	18	of
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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

November 19, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 13, 2013 from the SBMC, F&BI 311260 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1119R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 13, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 311260 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
311260-01	11-13-1

The 8021B total xylenes exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/19/13
Date Received: 11/13/13
Project: SBMC, F&BI 311260
Date Extracted: 11/13/13
Date Analyzed: 11/13/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
11-13-1 311260-01 1/5	<0.02 j	0.25	13	27 ve	1,900	ip
Method Blank 03-2358 MB	<0.02	<0.02	<0.02	<0.06	<2	94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/19/13
Date Received: 11/13/13
Project: SBMC, F&BI 311260
Date Extracted: 11/13/13
Date Analyzed: 11/13/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
11-13-1 311260-01	980	<250	103
Method Blank 03-2340 MB	<50	<250	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/19/13

Date Received: 11/13/13

Project: SBMC, F&BI 311260

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

Laboratory Code: 311257-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	83	66-121
Toluene	mg/kg (ppm)	0.5	88	72-128
Ethylbenzene	mg/kg (ppm)	0.5	88	69-132
Xylenes	mg/kg (ppm)	1.5	88	69-131
Gasoline	mg/kg (ppm)	20	90	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/19/13

Date Received: 11/13/13

Project: SBMC, F&BI 311260

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

Laboratory Code: 311236-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	100	101	63-146	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	79-144

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.

101/151

Phone # 425 821-7777 Fax # 425 821-4334

Page # _____ of _____

TURNAROUND TIME

☐ Standard (2 Weeks)

☒ **RUSH ASAP**

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

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

Samples received at 11 ⁰⁰ ₀₀

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

November 21, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 18, 2013 from the SBMC, F&BI 311341 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1121R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 18, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 311341 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
311341 -01

Terra Associates
11-18-1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13
Date Received: 11/18/13
Project: SBMC, F&BI 311341
Date Extracted: 11/18/13
Date Analyzed: 11/18/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
11-18-1 311341-01	<0.02	<0.02	0.16	0.28	160	105
Method Blank 03-2363 MB	<0.02	<0.02	<0.02	<0.06	<2	100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13
Date Received: 11/18/13
Project: SBMC, F&BI 311341
Date Extracted: 11/18/13
Date Analyzed: 11/18/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
11-18-1 311341-01	68	<250	92
Method Blank 03-2387 MB	<50	<250	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13

Date Received: 11/18/13

Project: SBMC, F&BI 311341

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

Laboratory Code: 311331-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	6	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	87	69-120
Toluene	mg/kg (ppm)	0.5	92	70-117
Ethylbenzene	mg/kg (ppm)	0.5	97	65-123
Xylenes	mg/kg (ppm)	1.5	96	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13

Date Received: 11/18/13

Project: SBMC, F&BI 311341

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

Laboratory Code: 311337-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	1,100	89	90	64-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	96	58-147

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.

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

November 21, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 18, 2013 from the SBMC, F&BI 311344 project. There are 5 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1121R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13
Date Received: 11/18/13
Project: SBMC, F&BI 311344
Date Extracted: 11/18/13
Date Analyzed: 11/18/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
11-18-2 311344-01	<0.02	<0.02	<0.02	<0.06	<2	101
11-18-3 311344-02	<0.02	<0.02	<0.02	<0.06	<2	102
11-18-4 311344-03	<0.02	<0.02	<0.02	<0.06	<2	102
11-18-5 311344-04	<0.02	<0.02	<0.02	<0.06	<2	101
11-18-6 311344-05	<0.02	<0.02	<0.02	<0.06	<2	101
Method Blank 03-2366 MB	<0.02	<0.02	<0.02	<0.06	<2	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13
Date Received: 11/18/13
Project: SBMC, F&BI 311344
Date Extracted: 11/18/13
Date Analyzed: 11/18/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
11-18-2 311344-01	<50	<250	100
11-18-3 311344-02	<50	<250	100
11-18-4 311344-03	<50	<250	98
11-18-5 311344-04	<50	<250	98
11-18-6 311344-05	<50	<250	99
Method Blank 03-2387 MB	<50	<250	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13

Date Received: 11/18/13

Project: SBMC, F&BI 311344

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

Laboratory Code: 311344-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	95	69-120
Toluene	mg/kg (ppm)	0.5	100	70-117
Ethylbenzene	mg/kg (ppm)	0.5	103	65-123
Xylenes	mg/kg (ppm)	1.5	101	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/21/13

Date Received: 11/18/13

Project: SBMC, F&BI 311344

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

Laboratory Code: 311337-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	1,100	89	90	64-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	96	58-147

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.

US/

Phone # 425 821-7777 Fax # 425 821-4334

- ☐ Return samples
- ☐ Will call with instructions

PO #

ANALYSES REQUESTED

[illegible]

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

November 25, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 19, 2013 from the SBMC, F&BI 311366 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1125R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 19, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 311366 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
311366 -01	11-19-1
311366 -02	11-19-2
311366 -03	11-19-3

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/13
Date Received: 11/19/13
Project: SBMC, F&BI 311366
Date Extracted: 11/20/13
Date Analyzed: 11/20/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
11-19-1 311366-01	<0.02	<0.02	<0.02	<0.06	<2	92
11-19-2 311366-02	<0.02	<0.02	<0.02	<0.06	<2	93
11-19-3 311366-03	<0.02	<0.02	<0.02	<0.06	<2	92
Method Blank 03-2398 MB	<0.02	<0.02	<0.02	<0.06	<2	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/13
Date Received: 11/19/13
Project: SBMC, F&BI 311366
Date Extracted: 11/19/13
Date Analyzed: 11/19/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
11-19-1 311366-01	<50	<250	102
11-19-2 311366-02	<50	<250	92
11-19-3 311366-03	<50	<250	97
Method Blank 03-2395 MB	<50	<250	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/13

Date Received: 11/19/13

Project: SBMC, F&BI 311366

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

Laboratory Code: 311355-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	93	69-120
Toluene	mg/kg (ppm)	0.5	102	70-117
Ethylbenzene	mg/kg (ppm)	0.5	107	65-123
Xylenes	mg/kg (ppm)	1.5	104	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/25/13

Date Received: 11/19/13

Project: SBMC, F&BI 311366

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

Laboratory Code: 311328-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	66	105	100	63-146	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	105	79-144

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.

311366

SAMPLE CHAIN OF CUSTODY

ME 11-19-13

B01/191

Send Report To Chuck LeeCompany Terra Associates IncAddress 12525 Willows Rd Site 10City, State, ZIP Bellevue, WA 98034Phone # 425 821-7777 Fax # 425 821-4334SAMPLERS (signature) [Signature]PROJECT NAME/NO. Stm

PO #

REMARKS

Page # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH 45A P

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

ANALYSES REQUESTED

Sample ID

Lab ID

Date

Time

Sample Type

of containers

TPH-Diesel

TPH-Gasoline

BTEX by 8021B

VOCs by 8260

SVOCs by 8270

HFS

Notes

11-19-1

01A-E

11/19/13

9:25

Soil

4

X

X

X

1 each sample received 11/19/13

11-19-2

02 T

9:30

9:40

Soil

4

X

X

X

11-19-3

03 T

9:40

Soil

4

X

X

X

1 each sample received 11/19/13

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

[Signature]Attilio R. HoffmanTAI11/19/139:55

Received by:

[Signature]DavidFBZ1111

Relinquished by:

[Signature]DavidFBZ1111

Received by:

[Signature]DavidFBZ1111Samples received at 13 °C

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 5, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 25, 2013 from the SBMC, F&BI 311479 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1205R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 25, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 311479 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
311479 -01

Terra Associates
11-25-1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13
Date Received: 11/25/13
Project: SBMC, F&BI 311479
Date Extracted: 11/25/13
Date Analyzed: 11/25/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
11-25-1 311479-01	<0.02	<0.02	0.15	0.17	29	99
Method Blank 03-2404 MB	<0.02	<0.02	<0.02	<0.06	<2	109

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13
Date Received: 11/25/13
Project: SBMC, F&BI 311479
Date Extracted: 11/25/13
Date Analyzed: 11/25/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u>	<u>Diesel Range</u>	<u>Motor Oil Range</u>	<u>Surrogate</u>
Laboratory ID	(C ₁₀ -C ₂₅)	(C ₂₅ -C ₃₆)	(% Recovery)
			(Limit 56-165)
11-25-1	<50	<250	87
311479-01			
Method Blank	<50	<250	90
03-2439 MB			

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13

Date Received: 11/25/13

Project: SBMC, F&BI 311479

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

Laboratory Code: 311471-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance
			LCS	Criteria
Benzene	mg/kg (ppm)	0.5	97	69-120
Toluene	mg/kg (ppm)	0.5	100	70-117
Ethylbenzene	mg/kg (ppm)	0.5	104	65-123
Xylenes	mg/kg (ppm)	1.5	100	66-120
Gasoline	mg/kg (ppm)	20	100	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13

Date Received: 11/25/13

Project: SBMC, F&BI 311479

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

Laboratory Code: 311462-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	89	92	63-146	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	90	79-144

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.

311479

SAMPLE CHAIN OF CUSTODY

ME 11/25/13

VS1/201

Send Report To Chuck LeeCompany Jetta Associates IncAddress 12525 Willows Rd Suite 101City, State, ZIP Kirkland, WA 98034Phone # 425 821-7777 Fax # 425 821-4334SAMPLERS (signature) ME

PROJECT NAME/NO.

SRMC

PO #

REMARKS

TURNAROUND TIME

☐ Standard (2 Weeks)Rush charges authorized by: CRUSH ASAP

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

ANALYSES REQUESTED

TPH-Diesel	
TPH-Gasoline	
BTEX by 8021B	
VOCs by 8260	
SVOCs by 8270	
HFS	

Notes

11-25-1

01A-E

11/25/13

13145

Soil

S

XX

XX

XX

Sample retrieved at

15 °C

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COG\COG.DOC

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Received by:

Relinquished by:

Received by:

Nicholas R. Holt

14005 NGUYEN

FBI

11/25/13

14:03

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 5, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on November 27, 2013 from the SBMC, F&BI 311528 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1205R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 27, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 311528 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
311528 -01	11-27-1
311528 -02	11-27-2

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13
Date Received: 11/27/13
Project: SBMC, F&BI 311528
Date Extracted: 11/27/13
Date Analyzed: 11/27/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
11-27-1 311528-01	<0.02	<0.02	<0.02	0.82	130	117
11-27-2 311528-02 1/5	<0.02 j	0.13	<0.1	8.0	1,800	ip
Method Blank 03-2408 MB	<0.02	<0.02	<0.02	<0.06	<2	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13
Date Received: 11/27/13
Project: SBMC, F&BI 311528
Date Extracted: 11/27/13
Date Analyzed: 11/27/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
11-27-1 311528-01	1,800	<250	94
11-27-2 311528-02	4,300	<250	96
Method Blank 03-2479 MB	<50	<250	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13

Date Received: 11/27/13

Project: SBMC, F&BI 311528

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR TPH AS GASOLINE
USING METHOD NWTPH-Gx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	mg/kg (ppm)	20	100	100	71-131	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13

Date Received: 11/27/13

Project: SBMC, F&BI 311528

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

Laboratory Code: 311529-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	85	94	63-146	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	79-144

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.

311528

SAMPLE CHAIN OF CUSTODY

ME 11-27-13

B01/151

Send Report To Chuck LieCompany Terra Associates IncAddress 12525 Willows Rd Suite 101City, State, ZIP Kirkland WA 98034Phone # 425 821-7777 Fax # 425 821-4334SAMPLERS (signature) MLPage # 1 of 1PROJECT NAME/NO. SBMC

PO #

REMARKS

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH ASAP
 Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

ANALYSES REQUESTED

Sample ID

Lab ID

Date

Time

Sample Type

of containers

TPH-Diesel

TPH-Gasoline

BTEX by 8021B

VOCs by 8260

SVOCs by 8270

HFS

Notes

11-27-1

01A-E

11/27/13

8:15

Soil

5

X

X

X

11-27-2

02T

11/27/13

8:25

Soil

5

X

X

X

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: MLNicholas R. Hoffman

TAI

11/27/13

8:42

Received by: MLNhan Phan

F&S

11/27/13

8:42

Relinquished by: MLNhan Phan

F&S

11/27/13

8:42

Received by: MLNhan Phan

F&S

11/27/13

8:42

Received by: MLNhan Phan

F&S

11/27/13

8:42

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 5, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on December 2, 2013 from the SBMC, F&BI 312005 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1205R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 2, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 312005 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
312005 -01

Terra Associates
12-2-1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13
Date Received: 12/02/13
Project: SBMC, F&BI 312005
Date Extracted: 12/02/13
Date Analyzed: 12/02/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
12-2-1 312005-01	<0.02	<0.02	<0.02	<0.06	4.5	112
Method Blank 03-2464 MB	<0.02	<0.02	<0.02	<0.06	<2	112

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13
Date Received: 12/02/13
Project: SBMC, F&BI 312005
Date Extracted: 12/02/13
Date Analyzed: 12/02/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
12-2-1 312005-01	130	<250	85
Method Blank 03-2484 MB	<50	<250	94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13

Date Received: 12/02/13

Project: SBMC, F&BI 312005

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	0.5	91	92	69-120	1
Toluene	mg/kg (ppm)	0.5	96	97	70-117	1
Ethylbenzene	mg/kg (ppm)	0.5	100	101	65-123	1
Xylenes	mg/kg (ppm)	1.5	97	98	66-120	1
Gasoline	mg/kg (ppm)	20	95	100	71-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/13

Date Received: 12/02/13

Project: SBMC, F&BI 312005

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

Laboratory Code: 311543-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	97	96	63-146	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	79-144

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.

312005

SAMPLE CHAIN OF CUSTODY

ME 12/2/13

CE 1/15/14

Send Report To Chuck LieCompany Terra Associates Inc.Address 12525 Willows Rd Suite 101City, State, ZIP Kirkland, WA 98034Phone # 425 821-7777 Fax # 425 821-4334Page # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH ASAP

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructionsSAMPLES (signature) [Signature]PROJECT NAME/NO. SBC

PO # _____

REMARKS

ANALYSES REQUESTED

Sample ID

Lab ID

Date

Time

Sample Type

of containers

TPH-Diesel

TPH-Gasoline

BTEX by 8021B

VOCs by 8260

SVOCs by 8270

HFS

Notes

12-2-1

01A-E

12/2/13

9:00

Soil

5

X

X

X

Samples received at 10 °C

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029Relinquished by: [Signature]Nicholas R. HoffmanTAI12/2/139:10

Ph. (206) 285-8282

Received by: [Signature]G. ObornF&B, Inc12/2/139:12

Ph. (206) 285-8282

Relinquished by: _____

Fax (206) 283-5044

Received by: _____

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 9, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on December 3, 2013 from the SBMC, F&BI 312024 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1209R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 3, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 312024 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
312024 -01	12-3-1
312024 -02	12-3-2

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/13
Date Received: 12/03/13
Project: SBMC, F&BI 312024
Date Extracted: 12/03/13
Date Analyzed: 12/03/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
12-3-1 312024-01	<0.02	<0.02	<0.02	<0.06	<2	83
12-3-2 312024-02	<0.02	<0.02	0.12	0.29	81	87
Method Blank 03-2464 MB	<0.02	<0.02	<0.02	<0.06	<2	112

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/13
Date Received: 12/03/13
Project: SBMC, F&BI 312024
Date Extracted: 12/03/13
Date Analyzed: 12/03/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
12-3-1 312024-01	<50	<250	101
12-3-2 312024-02	<50	<250	100
Method Blank 03-2490 MB	<50	<250	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/13

Date Received: 12/03/13

Project: SBMC, F&BI 312024

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	0.5	91	92	69-120	1
Toluene	mg/kg (ppm)	0.5	96	97	70-117	1
Ethylbenzene	mg/kg (ppm)	0.5	100	101	65-123	1
Xylenes	mg/kg (ppm)	1.5	97	98	66-120	1
Gasoline	mg/kg (ppm)	20	95	100	71-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/13

Date Received: 12/03/13

Project: SBMC, F&BI 312024

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

Laboratory Code: 312014-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	94	94	63-146	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	87	79-144

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.

vs /

Phone # 425 821-7777 Fax # 425 821-4334

Page # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)

☒ **RUSH** ASA

Rush charges authorized by: _____

SAMPLE DISPOSAL



☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Nicholas R. Hoffman	TAI	12/3/13	9:07
Received by: 	Nihan Phan	FEBI	12/3/13	9:07
Relinquished by:				
Received by:				

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 9, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on December 4, 2013 from the SBMC, F&BI 312051 project. There are 4 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1209R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 4, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 312051 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
312051 -01

Terra Associates
12-4-1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/13
Date Received: 12/04/13
Project: SBMC, F&BI 312051
Date Extracted: 12/04/13
Date Analyzed: 12/04/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
12-4-1 312051-01	<0.02	<0.02	<0.02	<0.06	<2	79
Method Blank 03-2466 MB	<0.02	<0.02	<0.02	<0.06	<2	113

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/13

Date Received: 12/04/13

Project: SBMC, F&BI 312051

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	0.5	89	92	69-120	3
Toluene	mg/kg (ppm)	0.5	97	99	70-117	2
Ethylbenzene	mg/kg (ppm)	0.5	102	103	65-123	1
Xylenes	mg/kg (ppm)	1.5	99	100	66-120	1
Gasoline	mg/kg (ppm)	20	100	100	71-131	0

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.

312051

SAMPLE CHAIN OF CUSTODY

ME 12/04/13

US/CA

Send Report To Chuck LieCompany Terra Associates Inc.Address 12525 Willows Rd Suite 101City, State, ZIP Kirkland, WA 98034Phone # 425 821-7777 Fax # 425 821-4334SAMPLERS (signature) [Signature]PROJECT NAME/NO. SBMC

PO #

REMARKS

Page # 1 of 1

TURNAROUND TIME

Standard (2 Weeks)

RUSH ASAP

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

ANALYSES REQUESTED

TPH-Diesel
TPH-Gasoline
BTEX by 8021B
VOCs by 8260
SVOCs by 8270
HFS

Notes

12-4-1

01A-E

12/4/13

9:50

Soil

5

X X

Samples stored at 12 °C

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

FERB I

DATE

12/4/13

12/4/13

TIME

10:01

10:01

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

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Relinquished by:

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PRINT NAME

Nicholas R. Hoffman

Phan Phan

COMPANY

TAI

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DATE

12/4/13

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 12, 2013

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on December 5, 2013 from the SBMC, F&BI 312080 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA1212R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 5, 2013 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 312080 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
312080-01	12-5-1
312080-02	12-5-2
312080-03	12-5-3

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/12/13
Date Received: 12/05/13
Project: SBMC, F&BI 312080
Date Extracted: 12/06/13
Date Analyzed: 12/06/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
12-5-1 312080-01	<0.02	<0.02	<0.02	<0.06	<2	115
12-5-2 312080-02	<0.02	<0.02	<0.02	<0.06	<2	113
12-5-3 312080-03	<0.02	<0.02	<0.02	<0.06	<2	112
Method Blank 03-2471 MB	<0.02	<0.02	<0.02	<0.06	<2	111

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/12/13
Date Received: 12/05/13
Project: SBMC, F&BI 312080
Date Extracted: 12/05/13
Date Analyzed: 12/05/13

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
12-5-1 312080-01	<50	<250	94
12-5-2 312080-02	<50	<250	92
12-5-3 312080-03	<50	<250	92
Method Blank 03-2501 MB	<50	<250	93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/12/13

Date Received: 12/05/13

Project: SBMC, F&BI 312080

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

Laboratory Code: 312080-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	87	69-120
Toluene	mg/kg (ppm)	0.5	96	70-117
Ethylbenzene	mg/kg (ppm)	0.5	100	65-123
Xylenes	mg/kg (ppm)	1.5	98	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/12/13

Date Received: 12/05/13

Project: SBMC, F&BI 312080

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

Laboratory Code: 312015-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	95	96	73-135	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	97	74-139

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.

312080

SAMPLE CHAIN OF CUSTODY

ME 12-05-13

COI/12/1

Send Report To Chuck LieCompany Jarvis Associates IncAddress 12525 Wilows Rd Suite 101City, State, ZIP Kirkland, WA 98034Phone # 425 821-7777 Fax # 425 821-4334Page # 1 of 1

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH ASAP

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructionsSAMPLERS (signature) [Signature]PROJECT NAME/NO. SBN

PO # _____

REMARKS

ANALYSES REQUESTED

Sample ID

Lab ID

Date

Time

Sample Type

of
containers

TPH-Diesel

TPH-Gasoline

BTEX by 8021B

VOCs by 8260

SVOCs by 8270

HFS

Notes

12-5-1

01A-E

12/5/13

12:10

Soil

5

X

X

X

12-5-2

02

12/5/13

12:20

Soil

5

X

X

X

12-5-3

03

12/5/13

13:30

Soil

5

X

X

X

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

Relinquished by: [Signature]

PRINT NAME

Nicholas R. Hoffman

COMPANY

F&B

DATE

12/5/13

TIME

14:55

Received by: [Signature]Relinquished by: [Signature]

D & D

F&B

12/1

11

Received by: _____

Samples received at 8 °C

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

January 28, 2014

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on January 22, 2014 from the SBMC, F&BI 401242 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Nick Hoffman
NAA0128R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 22, 2014 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 401242 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
401242 -01	1-22-1
401242 -02	1-22-2
401242 -03	1-22-3

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/28/14
Date Received: 01/22/14
Project: SBMC, F&BI 401242
Date Extracted: 01/22/14
Date Analyzed: 01/22/14

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
1-22-1 401242-01	<0.02	<0.02	<0.02	<0.06	<2	92
1-22-2 401242-02	<0.02	<0.02	<0.02	<0.06	<2	91
1-22-3 401242-03	<0.02	<0.02	0.056	0.27	44	93
Method Blank 04-0120 MB	<0.02	<0.02	<0.02	<0.06	<2	91

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/28/14
Date Received: 01/22/14
Project: SBMC, F&BI 401242
Date Extracted: 01/22/14
Date Analyzed: 01/22/14

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
1-22-1 401242-01	<50	<250	102
1-22-2 401242-02	<50	<250	97
1-22-3 401242-03	250 x	1,400	100
Method Blank 04-143 MB	<50	<250	113

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/28/14

Date Received: 01/22/14

Project: SBMC, F&BI 401242

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

Laboratory Code: 401242-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance Criteria
			LCS	
Benzene	mg/kg (ppm)	0.5	87	66-121
Toluene	mg/kg (ppm)	0.5	90	72-128
Ethylbenzene	mg/kg (ppm)	0.5	91	69-132
Xylenes	mg/kg (ppm)	1.5	92	69-131
Gasoline	mg/kg (ppm)	20	105	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/28/14

Date Received: 01/22/14

Project: SBMC, F&BI 401242

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

Laboratory Code: 401234-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	101	73-135	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	105	74-139

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.

HC 01/22/14 VS/

Page 11

TURNAROUND TIME
around (2 W/collec)

☐ Standard (2 Weeks)
☒ RUSH Sum. Port. 24h TA
Rush charges authorized by pa

SAMPLE DISPOSAL

- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

[illegible]

FORMS\COC\COC.DOC

2014

John F. Kennedy

19

12/19

23

Samples received at 6:00

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

July 22, 2014

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on July 16, 2014 from the SBMC, F&BI 407235 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA0722R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 16, 2014 by Friedman & Bruya, Inc. from the Terra Associates SBMC, F&BI 407235 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID
407235 -01

Terra Associates
7-16-1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/22/14
Date Received: 07/16/14
Project: SBMC, F&BI 407235
Date Extracted: 07/17/14
Date Analyzed: 07/17/14

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
7-16-1 407235-01	<0.02	<0.02	<0.02	0.079	51	88
Method Blank 04-1437 MB	<0.02	<0.02	<0.02	<0.06	<2	83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/22/14
Date Received: 07/16/14
Project: SBMC, F&BI 407235
Date Extracted: 07/16/14
Date Analyzed: 07/16/14

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u>	<u>Diesel Range</u>	<u>Motor Oil Range</u>	<u>Surrogate</u>
Laboratory ID	(C ₁₀ -C ₂₅)	(C ₂₅ -C ₃₆)	(% Recovery)
			(Limit 56-165)
7-16-1	160	<250	88
407235-01			
Method Blank	<50	<250	83
04-1471 MB			

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/22/14

Date Received: 07/16/14

Project: SBMC, F&BI 407235

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	0.5	84	84	69-120	0
Toluene	mg/kg (ppm)	0.5	86	87	70-117	1
Ethylbenzene	mg/kg (ppm)	0.5	88	90	65-123	2
Xylenes	mg/kg (ppm)	1.5	87	89	66-120	2
Gasoline	mg/kg (ppm)	20	95	95	71-131	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/22/14

Date Received: 07/16/14

Project: SBMC, F&BI 407235

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

Laboratory Code: 407235-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	110	94	95	63-146	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	96	79-144

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.

EO2 / VS1

Phone # 425 821-7777 Fax # 425 821-4334

Page # _____ of _____

TURNAROUND TIME

☐ Standard (2 Weeks)

☒ **RUSH**

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

[illegible]

FORMS\COGC\COGC.DOC

1

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 22, 2014

Chuck Lie, Project Manager
Terra Associates
12525 Willows Rd NE Ste 101
Kirkland, WA 98034

Dear Mr. Lie:

Included are the results from the testing of material submitted on September 18, 2014 from the T-6751 SBMC, F&BI 409323 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA0922R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 18, 2014 by Friedman & Bruya, Inc. from the Terra Associates T-6751 SBMC, F&BI 409323 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Terra Associates</u>
409323 -01	140918-3.0-B-1
409323 -02	140918-1.0-S-2
409323 -03	140918-1.3-S-3
409323 -04	140918-3.5-B-4
409323 -05	140918-4.5-B5

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/14

Date Received: 09/18/14

Project: T-6751 SBMC, F&BI 409323

Date Extracted: 09/18/14

Date Analyzed: 09/18/14

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
140918-1.0-S-2 409323-02	<0.02	<0.02	<0.02	<0.06	3.1	88
140918-4.5-B5 409323-05	<0.02	0.035	0.19	0.40	98	92
Method Blank 04-1905 MB	<0.02	<0.02	<0.02	<0.06	<2	87

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/14

Date Received: 09/18/14

Project: T-6751 SBMC, F&BI 409323

Date Extracted: 09/19/14

Date Analyzed: 09/19/14

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
140918-1.0-S-2 409323-02	67 x	830	104
140918-4.5-B5 409323-05	370	<250	100
Method Blank 04-1887 MB	<50	<250	99

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/14

Date Received: 09/18/14

Project: T-6751 SBMC, F&BI 409323

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	0.5	90	90	69-120	0
Toluene	mg/kg (ppm)	0.5	91	91	70-117	0
Ethylbenzene	mg/kg (ppm)	0.5	90	91	65-123	1
Xylenes	mg/kg (ppm)	1.5	88	88	66-120	0
Gasoline	mg/kg (ppm)	20	95	95	71-131	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/22/14

Date Received: 09/18/14

Project: T-6751 SBMC, F&BI 409323

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

Laboratory Code: 409288-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	103	96	63-146	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	79-144

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.

2021 Do/

Phone # 425 821 7377 Fax # _____

TURNAROUND TIME

☐ Standard (2 Weeks)

☒ **RUSH**

Rush charges authorized by _____

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>[Signature]</i>	Tony Bukoush	Esquire of the US	4-18-84	1520
Received by: <i>[Signature]</i>	Phan Phan	FEB I	9/18/14	1520
Relinquished by:				
Received by:				

APPENDIX B

SOIL DISPOSAL DOCUMENTATION

Account Inquiry - Unbilled Revenue

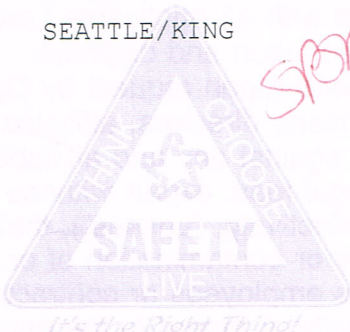
Account/Date	Code	Size	Description	Reference	Quantity
060163			TD Excavating LLC		
			P O Box 177, Easton,WA 98925		
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901925	26.85 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901932	22.19 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901940	25.37 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901944	26.32 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901946	24.22 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901960	26.99 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901962	25.38 TN
Dec-04-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-901965	27.46 TN
Dec-05-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-902004	22.55 TN
Dec-09-2013	VH		SW-CONT SOIL W/FUEL LW-13470	01-902088	18.96 TN
			Invoice Total:		

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	060163 TD Excavating LLC P O Box 177 Easton, WA 98925 LW-13470

SITE	01	TICKET #	905524	CELL	
WEIGHMASTER IN - JAMIE B. OUT - Drinda L.					
DATE/TIME IN 03-11-2014 3:05 pm			DATE/TIME OUT 03-11-2014 3:16 pm		
VEHICLE SOIL			CONTAINER		
REFERENCE P-109				INVOICE	
BILL OF LADING					

SCALE IN	GROSS WEIGHT	81,560	NET TONS	22.78	
SCALE OUT	TARE WEIGHT	36,000	NET WEIGHT	45,560	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
22.78	TN	SW-CONT SOIL W/FUEL SEATTLE/KING				



The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____

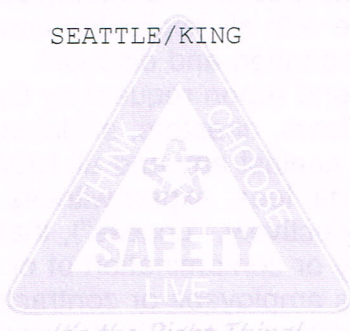
NET AMOUNT
TENDERED
CHANGE
CHECK#

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	060163 TD Excavating LLC P O Box 177 Easton, WA 98925 LW-13470

SITE	01	TICKET #	905524	CELL	
WEIGHMASTER IN - JAMIE B. OUT - Drinda L.					
DATE/TIME IN 03-11-2014 3:05 pm			DATE/TIME OUT 03-11-2014 3:16 pm		
VEHICLE SOIL			CONTAINER		
REFERENCE P-109				INVOICE	
BILL OF LADING					

SCALE IN	GROSS WEIGHT	81,560	NET TONS	22.78	
SCALE OUT	TARE WEIGHT	36,000	NET WEIGHT	45,560	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
22.78	TN	SW-CONT SOIL W/FUEL SEATTLE/KING				



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RS-F042UPR (07/12)

2/21

SIGNATURE _____

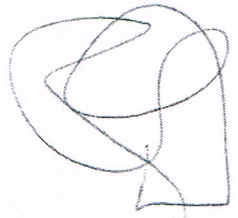
NET AMOUNT
TENDERED
CHANGE
CHECK#

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	060163 TD Excavating LLC P O Box 177 Easton, WA 98925 LW-13470

SITE	TICKET #	CELL
01	910965	
WEIGHMASTER		
IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2014 2:35 pm	07-21-2014 2:41 pm	
VEHICLE	CONTAINER	
SOIL		
REFERENCE	INVOICE	
3 COMPLETE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	41,680	NET TONS	7.88	
SCALE OUT	TARE WEIGHT	25,920	NET WEIGHT	15,760	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
7.88	TN	SW-CONT SOIL W/FUEL SEATTLE/KING				



NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____

Invoice Number: 5296594
 Invoice Date: 07/18/14
 Page: 1
 Terms of Sale: DUE BY 10TH
 Customer Number: 8633380
 Tax Code: WA-ONT
 Customer Job:

INVOICE



Cadman, Inc.

TD EXCAVATING LLC-SBMC-2370/60

P.O. BOX 177
 EASTON, WA 98925

TO ENSURE PROPER CREDIT, PLEASE INCLUDE THE INVOICE NUMBER WITH YOUR PAYMENT REMIT TO:

15620 Collection Center Drive
 Chicago, IL 60693-0156
 Federal ID No: 91-0162302



Delivery Address	Purchase Order	Sales Order	Plant
2930 W COMMODORE WAY		22694	Black Diamond

Ticket Date	Ticket Number	Truck Type	Ship to Reference	Product Number	Product Description	Quantity	UOM	Unit Price	Amount	Freight	Fuel Surchg	Extended Price
-------------	---------------	------------	-------------------	----------------	---------------------	----------	-----	------------	--------	---------	-------------	----------------

Tickets:

3080783

Complete Landscape

07/18/14				91255	TYPE17	14.61	Ton					
07/18/14				119949	Enviro Fee	14.61	Ton					

SITE	REGIONAL DISPOSAL INTERMODAL
	3rd and lander Seattle, WA --
CUSTOMER	060163 TD Excavating LLC P O Box 177 Easton, WA 98925 LW-13470

SITE 01	TICKET # 913693	CELL
WEIGHMASTER IN - JAMIE B. OUT - Leslie U.		
DATE/TIME IN 09-30-2014 3:36 pm		DATE/TIME OUT 09-30-2014 3:42 pm
VEHICLE SOIL		CONTAINER
REFERENCE GETTY TRUCKING		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	34,620	NET TONS	4.64	
SCALE OUT	TARE WEIGHT	25,340	NET WEIGHT	9,280	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
4.64	TN	SW-CONT SOIL W/FUEL SEATTLE/KING				



The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

SIGNATURE

[Signature]

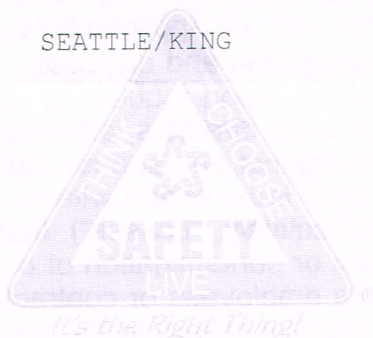
NET AMOUNT
TENDERED
CHANGE
CHECK#

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	060163 TD Excavating LLC P O Box 177 Easton, WA 98925 LW-13470

SITE	TICKET #	CELL
01	913686	
WEIGHMASTER		
IN - Drinda L. OUT - Leslie U.		
DATE/TIME IN	DATE/TIME OUT	
09-30-2014 2:15 pm	09-30-2014 2:22 pm	
VEHICLE	CONTAINER	
SOIL		
REFERENCE		
GETTY		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	46,340	NET TONS	10.48	
SCALE OUT	TARE WEIGHT	25,380	NET WEIGHT	20,960	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
10.48	TN	SW-CONT SOIL W/FUEL SEATTLE/KING				



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SIGNATURE

NET AMOUNT
TENDERED
CHANGE
CHECK#