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Draft - Issued for Client Reviews

March 20, 2018

Ms. Kim Kuhl
Kane Properties, LLC
19427 136th Place Southeast
Renton, Washington 98058

SUBJECT: SUBSURFACE INVESTIGATION SUMMARY REPORT
Rainier Mall North Property
4208 Rainier Avenue, Seattle, Washington
Project Number: 0611-017

Dear Ms. Kuhl:

SoundEarth Strategies, Inc. (SoundEarth) has prepared this letter report to present the results of the subsurface investigation for the Rainier Mall North Property (northern portion of King County Parcel No. 795030-1480), located at 4208 Rainier Avenue South in Seattle, Washington (Figure 1). The property consists of the northern portion of an irregularly shaped tax parcel that covers approximately 101,537 square feet (2.33 acres) of land. As part of the property acquisition, the parcel will be split into two parcels—Rainier Mall North and Rainier Mall South—as shown on Figure 2. This report focuses only on the subsurface conditions on the Rainier Mall North Property (the Property).

The Property is currently developed with a one-story retail building that occupies 36,071 square feet as show on Figure 2.

The purpose of the subsurface investigation was to assess the conditions of the fill soil, and the potential for migration of chlorinated solvent impacts associated with historical dry cleaner operations on the south-adjoining property (the Rainier Mall South property) onto the Property. The work was conducted on behalf of IS Property Investments LLC as part of their due diligence during property acquisition.

PROPERTY BACKGROUND

Based on aerial photographs and Sanborn maps, the Property was developed with multiple single-family residences by 1935. The approximate locations of former residences are shown on Figure 2. The single-family residences were demolished between 1965 and 1968, at which point a grocery store was built on the northern portion of the Property. Based on historical records, at least one of the former residences was heated using a heating oil underground storage tank (UST).

According to historical records, the Property was occupied by a former Safeway, Inc. grocery store that was constructed in 1968. Building plans from Seattle Department of Construction and Inspections (DCI) indicate the existing building is underlain by up to 170 treated timber piles. The grocery store was converted into a mixed-use retail mall in 1998, at which point the building footprint was expanded to the west and south. The building was originally heated using electricity and converted to natural gas in 1986.

The building is currently vacant. A building located on the southwest corner of the Property contained a dry cleaning operation that operated between the 1930s and the 1960s. The building was demolished by at least 1978.

South-Adjacent Property

Former dry cleaning operations were in three separate locations on the Rainier Mall South property (Figure 2). The buildings housing all the former dry cleaner operations were removed from the Rainier Mall South property by at least 1978. The Rainier Mall South property is currently occupied by an asphalt paved parking lot.

SITE GEOLOGY

Based on *The Geologic Map of Seattle—A Progress Report*, surface soil in the vicinity of the Property is primarily Vashon recessional lacustrine deposits, which are typically composed of laminated silt and clay with low to high plasticity, with local sand layers, peat, and other organic sediments. Previous investigations at the Property and other properties in the immediate vicinity have encountered fill material consisting of gravel, sand, and silt to depths ranging from 1 to 14 feet below ground surface (bgs), overlying soft to stiff sandy silt and clay to at least 41 feet bgs. Stiff silt and clay have been encountered between 40 and 90 feet bgs. Static groundwater levels in the vicinity of the Property range from approximately 27 to 195 feet bgs, with an inferred groundwater flow direction to the northeast toward Lake Washington.

PREVIOUS INVESTIGATIONS

A geotechnical investigation was conducted in 1967 by Dames and Moore as part of the proposed construction for the Safeway building. Four soil borings were advanced to depths between 16.5 and 43.5 feet bgs. In general, an organic silt was encountered in the upper 1 to 5 feet, which was underlain by a firm clay and clayey silt up to a depth of approximately 32 feet bgs. Dense well-graded sand and gravel underlay the clay. The geotechnical report proposed using driven piles to a depth of 32 feet bgs as the structural support for the proposed building.

A ground-penetrating radar (GPR) survey was conducted in June 2000 by Apollo Geophysics Corporation. The GPR survey identified an area on the eastern edge of the Property that may have been previously backfilled.

South-Adjoining Property

A Phase II Subsurface Investigation conducted in July 2000 by Hahn and Associates, Inc. on the Rainier Mall South property indicated that the operation of former dry cleaners had impacted soil and perched groundwater on the southwestern portion of the southern property. The investigation identified concentrations of chlorinated volatile organic compounds (CVOCs) above their respective Washington State Model Toxics Control Act (MTCA) Method A cleanup levels in soil between 12.5 and 32.5 feet bgs on the Rainier Mall South property. Two reconnaissance groundwater samples contained concentrations of CVOCs above the applicable MTCA Method A cleanup levels.

SoundEarth conducted a subsurface investigation in 2017 on the Rainier Mall South property to further define the extent of chlorinated solvent impacts in soil and groundwater. The investigation included two

borings near the northern former dry cleaner, closest to the Property. Analytical results indicated that soil impacts were not observed in the vicinity of the northern former dry cleaner. Soil impacts were detected in the southwestern corner the Rainier Mall South property, and regional groundwater was not encountered.

FIELD ACTIVITIES

The following sections detail the field activities and results of additional subsurface investigation activities conducted by SoundEarth at the Property in January and February 2018. Prior to completing any subsurface investigations, SoundEarth completed public and private utility locates.

Soil Gas

SoundEarth mobilized to the Property on January 2, 2018, to complete three soil gas vapor sampling points. The soil gas vapor points were installed south of the on-Property building to assess potential vapor intrusion from the former dry cleaner operations (Figure 2). The soil gas points were installed using a direct-push drill rig. The soil gas points were advanced to approximately 8 feet bgs and a temporary soil gas point was installed. Prior to sampling, the sample point was leak tested and the sample train was purged. The soil gas samples were collected from each temporary point using a 1-liter Summa canister. The samples were submitted to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington, for analysis of CVOCs by U.S. Environmental Protection Agency Method TO-15.

Subsurface Investigation

On January 24 through January 26, 2018, SoundEarth conducted a subsurface investigation on both the both properties. The subsurface investigation included borings on the Property and the Rainier Mall South property, as shown on Figure 2. The purpose of the investigation was to determine the northern lateral extent of CVOCs on the Rainier Mall South property, and to characterize the fill material across both properties. Borings on the Property include TB01 through TB05, B10, and B11. Boring TB03 was advanced on the Rainier Mall South property, just south of the proposed new Property boundary, but the samples will be used to characterize fill soil across both properties. Boring locations are presented on Figure 2. Borings TB01 through TB05 were included as part of the geotechnical scope of work, performed by Terra Associates.

Borings were advanced using a hollow-stem auger drill rig to depths between 21.5 and 46.5 feet bgs. Soil borings were observed by a SoundEarth licensed geologist. Soil samples were described in accordance with the Unified Soil Classification System (USCS) and screened in the field for potential evidence of contamination by using visual observations and notations of odor and by conducting headspace analysis using a photoionization detector (PID) to detect the presence of volatile organic vapors. The USCS symbol, visual and olfactory notations for the samples, and PID readings were recorded on boring log forms.

Soil samples were placed directly into laboratory-prepared sample containers labeled with unique laboratory identification numbers. The containers were placed in an iced cooler and transported for laboratory analysis to F&BI under standard chain-of-custody protocols:

- Samples from TB01, TB02, and TB05 were submitted for gasoline-, diesel-, and oil-range petroleum hydrocarbons (GRPH, DRPH, and ORPH, respectively) analysis.

- Samples from TB01, TB02, TB05, B10, and B11 were submitted for CVOCs analysis.
- Samples from TB01, TB03, and TB04 were submitted for arsenic, cadmium, chromium, lead, and mercury analysis.
- Samples from TB01, TB03, and TB04 were submitted for polycyclic aromatic hydrocarbons (PAHs) analysis.

SUBSURFACE CONDITIONS AND ANALYTICAL RESULTS

Borings encountered fill and/or reworked native soils consisting of silty sand to sandy silt with gravel and trace amounts of brick and wood to depths of approximately 8 feet bgs. The fill material was underlain by soft to medium dense silt and silty clay to a depth of approximately 30 to 33 feet bgs, underlain by dense silty sand with some gravel to total depths explored (up to 46.5 feet bgs).

Moist to wet soil conditions indicating perched groundwater were encountered at depths ranging from 13 to 20 feet bgs.

Soil Gas Results

Soil gas analytical data is provided in Table 1. Analytical results indicated the following:

- Concentrations of tetrachloroethene were detected in all three samples at concentrations between 25 to 48 micrograms per cubic meter ($\mu g/m^3$), below the MTCA Method B screening level of 321 $\mu g/m^3$.
- Remaining CVOCs were below the laboratory detection limit for all three soil gas samples.

Soil Analytical Results

A summary of the soil analytical results is provided in Tables 2 through 5.

The following analytes were detected at concentrations above laboratory reporting limits:

- ORPH was detected in sample TB05-05 at a concentration of 5,100 milligrams per kilogram (mg/kg) at a depth of 5 feet bgs. This concentration in soil is above the MTCA Method A cleanup level of 2,000 mg/kg.
- DRPH was detected in sample TB01-15 at 110 mg/kg and in sample TB05-05 at 190 mg/kg well below the MTCA Method A cleanup level of 2,000 mg/kg. The lab indicated that the samples chromatographic pattern does not resemble the fuel standard used for quantitation.
- GRPH was detected in sample TB01-15 at 15 mg/kg, below the MTCA Method A cleanup level of 30 mg/kg.
- Arsenic, chromium, and lead were detected in samples TB01-05, TB03-05, and TB04-05 at background concentrations well below their respective MTCA Method A cleanup levels of 20 mg/kg, 2,000 mg/kg and 250 mg/kg, respectively.
- PAHs were detected at levels below the laboratory reporting level or below the MTCA Method A cleanup level for all soil samples submitted for analysis.

Laboratory analytical reports are provided in Attachment A.

CONCLUSIONS

Based on the data results of the soil gas sampling at the south edge of the existing building, the CVOC-impacted soil and groundwater on the Rainier Mall South property does not appear to present a vapor intrusion risk to the current on-Property building.

Based on the results of the subsurface investigation, CVOC-impacted soils were not detected on the Property. All soil samples collected from the approximate location of the former northern dry cleaner were below the laboratory detection limit (Figure 3). The lateral extent of CVOCs from the Rainier Mall South property is defined and does not appear to extend onto the Property. Based on the analytical results of the investigation, impacts from the former operation of dry cleaner facilities on the Rainier Mall South property have not impacted soil or groundwater on the Property.

One soil sample from boring TB05 contained a concentration of ORPH exceeding the applicable cleanup level. The sample was collected at 5 feet bgs in TB05 within fill material. Based on field observations, the ORPH-impacted soil in this location appears limited. Select soil samples were analyzed for GPRH, DRPH, ORPH, CVOCs, metals, and PAHs to assess the fill material in the upper 10 feet of the Property. Analytical results from all collected soil samples indicated concentrations of CVOCs, metals, and PAHs below the MTCA Method A cleanup levels.

Based on the historical review, DCI records indicate that up to 170 treated wood piles are located beneath the on-Property building. Treated wood piles from this period (1960s) are typically treated with creosote, which may result in PAH-impacted soil in the vicinity of the piles. Based on the available soil data, and experience with creosote treated wood piles in fill material, any potential PAH impacts to soil are likely localized to the immediate vicinity of the wooden piles.

RECOMMENDATIONS

SoundEarth recommends further investigation prior to building demolition to determine potential localized PAH impacts in soil and groundwater from wood-treated piles beneath the building. Additional investigation would include exposing a treated wood pile to determine if they are creosote-treated and collect soil samples immediately surrounding the piles. Soil impacted with PAHs that are excavated during development would need to be disposed of as a Class 3 soil at a Subtitle D landfill and would require separate handling and segregation from non-impacted soils. Piles should be extracted and overdrilled to remove surrounding impacted soil.

In addition to the potential for PAH-impacted soil, SoundEarth recommends implementing a soil management plan to address the shallow fill soil near TB01 and TB05 during development excavation. Soil in the TB01 area would be handled as Class 2 material, and soil from TB05 area would be handled as Class 3 material. Estimated remedial areas are depicted on Figure 4. Additional samples will eventually need to be collected laterally around TB05 to delineate the area of ORPH-impacted soil above the MTCA Method A cleanup level. The delineation can occur prior or during development, dependent on timing and client needs.

Based on the presence of several single-family residences on the Property between 1935 and 1965, heating oil USTs may be present at the Property. At least one residence is confirmed to have had a former heating oil UST, and it is likely that USTs may be encountered during excavation activities.

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant and are not responsible for the accuracy or validity of work performed by others, nor from the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

Respectfully,

SoundEarth Strategies, Inc.

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Liz Forbes, LG
Associate Geologist

John Funderburk, MSPH
Principal

Attachments: Figure 1, Property Location Map
Figure 2, Exploration Location Plan
Figure 3, Soil Analytical Results
Figure 4, Estimated Remedial Areas
Table 1, Summary of Soil Gas Analytical Results
Table 2, Soil Analytical Results for TPH and BTEX
Table 3, Soil Analytical Results for Chlorinated VOCs
Table 4, Soil Analytical Results for Metals
Table 5, Soil Analytical Results for PAHs
A, Laboratory Analytical Reports
Friedman & Bruya, Inc. #801002
Friedman & Bruya, Inc #801334 and additional
Friedman & Bruya, Inc #801363
Friedman & Bruya, Inc #801365
Friedman & Bruya, Inc #801370 and additional

EBF/AFH:rt/dnm

FIGURES

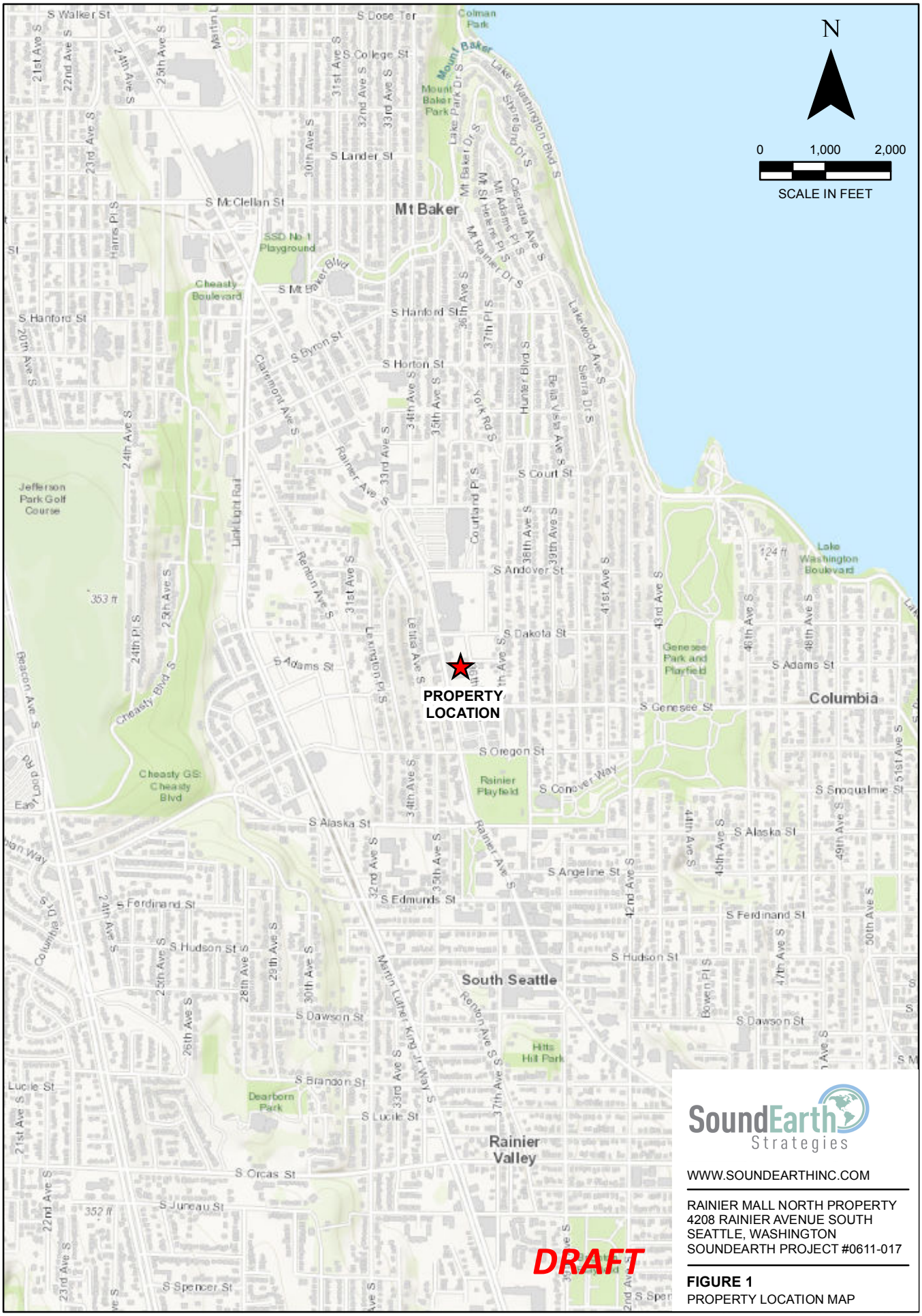

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FIGURE 1
PROPERTY LOCATION MAP

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0 30 60

APPROXIMATE SCALE IN FEET

TB02

TB01

APPROXIMATE LOCATION OF FORMER RESIDENCES

APPROXIMATE LOCATION OF FORMER STORES

RETAIL BUILDING

SG01

SG02

TB04

SG03

TB05

APPROXIMATE LOCATION OF FORMER RESIDENCES

ESTIMATED LOCATION OF FORMER DRY CLEANERS

B10

B-7

SB07

B11

SB06

B-8

B-6

B07/MW03

PARKING LOT

B08

TB03

36TH AVENUE

B-5

B14

B06

B04

B02

APPROXIMATE LOCATION OF FORMER RESIDENCES

B09/MW02

B03

TB08/MW05

SB08

B12

SB02

B01/ MW01

SB01

B05

SB03

B13

B-1

B-2

TB07/MW04

SB04

B-4

ESTIMATED LOCATION OF FORMER DRY CLEANERS

SB05

B-3

TB06

RAINIER AVENUE SOUTH

SOUTH GENESEE STREET

LEGEND

	CATCH BASIN
B07/MW03	GROUNDWATER MONITORING WELL
TB08/MW05	TERRA MONITORING WELL
SG03	SOIL GAS SAMPLE
SB08	PUSH-PROBE SOIL BORING
B04	HOLLOW-STEM AUGER SOIL BORING
B12	ANGLED HOLLOW-STEM AUGER SOIL BORING
B-8	SOIL BORING (HAHN AND ASSOCIATES, INC, 2000)
B05	SONIC SOIL BORING
TB06	TERRA GEOTECHNICAL BORING
	PROPERTY BOUNDARY
	PROPOSED RAINIER MALL NORTH PROPERTY BOUNDARY
	UNDERGROUND ELECTRIC LINE
	GAS LINE
	SEWER LINE
	STORMWATER LINE
	COMMUNICATION LINE

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FIGURE 2
EXPLORATION LOCATION PLAN

Well/Boring ID	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram) GRPH	DRPH	ORPH	Tetrachloroethene	Trichloroethene	Arsenic	Cadmium	Chromium	Lead	Mercury
TB01	01/24/18	15.0	**15**	110.00	<250	<0.025	<0.02	2.54	<1	18.8	4.82	<1
TB02	01/24/18	15.0	<5	<50	<250	<0.025	<0.02	2.39	<1	28.2	4.26	<1
TB04	01/25/18	5.0	--	--	--	--	--	1.79	<1	12.1	8.1	<1
TB05	01/25/18	5.0	<5	190.00	**5,100**	<0.025	<0.02	--	--	--	--	--
B10	01/26/18	2.5	--	--	--	<0.025	<0.02	--	--	--	--	--
B11	01/26/18	15.0	--	--	--	<0.025	<0.02	--	--	--	--	--
MTCA Cleanup Level for Soil			**30**	**2,000**	**2,000**	**0.05**	**0.03**	**20**	**2**	**2,000**	**250**	**2**

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APPROXIMATE SCALE IN FEET

TB02 TB01 SG01 SG02 TB04 SG03 TB05 B10 B-7 SB07 B11 B-8 SB06 B-6 B07/MW03 PARKING LOT B08 B-5 B14 B06 B04 B02 TB03 36TH AVENUE B09/MW02 B03 TB08/MW05 SB08 B12 SB02 SB01 SB03 B01/ MW01 B05 B13 B-1 B-2 TB07/MW04 SB04 B-4 SB05 B-3 TB06

ESTIMATED LOCATION OF FORMER DRY CLEANERS

RAINIER AVENUE SOUTH

ESTIMATED LOCATION OF FORMER DRY CLEANERS

SOUTH GENESEE STREET

LEGEND

- CATCH BASIN
- B07/MW03 GROUNDWATER MONITORING WELL
- TB08/MW05 TERRA MONITORING WELL
- SG03 SOIL GAS SAMPLE
- SB08 PUSH-PROBE SOIL BORING
- B04 HOLLOW-STEM AUGER SOIL BORING
- B12 ANGLED HOLLOW-STEM AUGER SOIL BORING
- B-8 SOIL BORING (HAHN AND ASSOCIATES, INC, 2000)
- B05 SONIC SOIL BORING
- TB06 TERRA GEOTECHNICAL BORING
- RED DENOTES CONCENTRATION IN SOIL EXCEEDS MTCA METHOD A CLEANUP LEVELS
- DENOTES CONCENTRATION IN SOIL BELOW MTCA METHOD A CLEANUP LEVELS
- DENOTES DETECTABLE COMPOUND BELOW MTCA METHOD A CLEANUP LEVELS
- PROPERTY BOUNDARY
- PROPOSED RAINIER MALL NORTH PROPERTY BOUNDARY
- UNDERGROUND ELECTRIC LINE
- GAS LINE
- SEWER LINE
- STORMWATER LINE
- COMMUNICATION LINE

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FIGURE 3
SOIL ANALYTICAL RESULTS

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0 30 60

APPROXIMATE SCALE IN FEET

TB02
TB01
SG01
SG02
TB04
SG03
TB05
B10
B-7
SB07
B11
SB06
B-8
B-6
B07/MW03
PARKING LOT
B08
TB03
B-5
B14
B06
B04
B02
B09/MW02
B03
TB08/MW05
SB08
B12
SB02
SB01
SB03
B01/
MW01
B05
B13
B-1
B-2
TB07/MW04
SB04
B-4
SB05
B-3
TB06

RAINIER AVENUE SOUTH

36TH AVENUE

ESTIMATED LOCATION OF FORMER DRY CLEANERS

ESTIMATED LOCATION OF FORMER DRY CLEANERS

SOUTH GENESEE STREET

LEGEND

- CATCH BASIN
- B07/MW03 — GROUNDWATER MONITORING WELL
- TB08/MW05 — TERRA MONITORING WELL
- SG03 — SOIL GAS SAMPLE
- SB08 — PUSH-PROBE SOIL BORING
- B04 — HOLLOW-STEM AUGER SOIL BORING
- B12 — ANGLED HOLLOW-STEM AUGER SOIL BORING
- B-8 — SOIL BORING (HAHN AND ASSOCIATES, INC, 2000)
- B05 — SONIC SOIL BORING
- TB06 — TERRA GEOTECHNICAL BORING
- APPROXIMATE LOCATION OF WOOD-TREATED PILE
- CLASS 2 SOIL AREA
- CLASS 3 SOIL AREA
- RED — DENOTES CONCENTRATION IN SOIL EXCEEDS MTCA METHOD A CLEANUP LEVELS
- DENOTES CONCENTRATION IN SOIL BELOW MTCA METHOD A CLEANUP LEVELS
- PROPERTY BOUNDARY
- PROPOSED RAINIER MALL NORTH PROPERTY BOUNDARY
- E — E — UNDERGROUND ELECTRIC LINE
- GAS — GAS — GAS LINE
- SS — SS — SEWER LINE
- SW — SW — STORMWATER LINE
- COM — COM — COMMUNICATION LINE

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FIGURE 4
ESTIMATED REMEDIAL AREAS

TABLES

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Table 1
Summary of Soil Gas Analytical Results
Rainier Mall North Property
4208 Rainier Avenue
Seattle, Washington

Well ID	Sample ID	Date Sampled	Analytical Results (micrograms per cubic meter)										
			Tetrachloroethene[1]	Trichloroethene[1]	Cis-1,2-Dichloroethene[1]	Trans-1,2-Dichloroethene[1]	1,1-Dichloroethene[1]	Vinyl Chloride[1]	Chloroethane[1]	1,1-Dichloroethane[1]	1,2-Dichloroethane[1]	1,1,1-Trichloroethane[1]	1,1,2-Trichloroethane[1]
SG01	SG01-20180102	01/02/18	48	<5.4	<4	<4	<4	<2.6	<2.6	<4	<4	<5.5	<5.5
SG02	SG02-20180102	01/02/18	38	<5.4	<4	<4	<4	<2.6	<2.6	<4	<4	<5.5	<5.5
SG03	SG03-20180102	01/02/18	25	<5.4	<4	<4	<4	<2.6	<2.6	<4	<4	<5.5	<5.5
Method B Screening Levels for Sub-Slab Soil Gas			**321[2]**	**12.3[2]**	**NE**	**NE**	**3,050[3]**	**9.33[2]**	**NE**	**52.1[2]**	**3.21[2]**	**76,200[3]**	**5.21[3]**

NOTES:

Sample analyses performed by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Analyzed by U.S. Environmental Protection Agency Method TO-15.

[2]MTCA Method B Deep Soil Gas Screening Level, Cancer, CLARC Master Spreadsheet, April 2015 revisions of Table B-1 from Ecology's Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State, October 2009.

[3]MTCA Method B Deep Soil Gas Screening Level, Non-Cancer, CLARC Master Spreadsheet, April 2015 Revisions to Table B-1 from Ecology's Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State, October 2009.

< = not detected at concentration exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculation

Ecology = Washington State Department of Ecology

MTCA = Washington State Model Toxics Control Act

NE = Not Established

Table 2
Soil Analytical Results for TPH and BTEX
Rainier Mall North Property
4208 Rainier Avenue
Seattle, Washington

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Well/Boring ID	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram)						
				GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
TB01	TB01-15	01/24/18	15.00	15	110[x]	<250	--	--	--	--
TB02	TB02-15	01/24/18	15.00	<5	<50	<250	--	--	--	--
TB05	TB05-05	01/25/18	5.00	<5	190[x]	**5,100**	--	--	--	--
MTCA Cleanup Level for Soil[4]				**30**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for soil.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Analyzed by Method NWTPH-Gx.

[2]Analyzed by Method NWTPH-Dx.

[3]Analyzed by EPA Method 8021B.

[4]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

Laboratory Note:

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

-- = not analyzed/not applicable

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

BTEX = benzene, toluene, ethylbenzene, and total xylenes

DRPH = diesel-range petroleum hydrocarbon

EPA = U.S. Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbon

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbon

TPH = total petroleum hydrocarbon

WAC = Washington Administrative Code

Table 3
Soil Analytical Results for CVOCs
Rainier Mall North Property
4208 Rainier Avenue
Seattle, Washington

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Well/Boring ID	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results[1] (milligrams per kilogram)					
				Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
TB01	TB01-15	01/24/18	15.00	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
TB02	TB02-15	01/24/18	15.00	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
TB05	TB05-05	01/25/18	5.00	<0.025	<0.02	--	--	<0.05	<0.05
B10	B10-2.5	01/26/18	2.50	<0.025	<0.02	--	--	<0.05	<0.05
B11	B11-15	01/26/18	15.00	<0.025	<0.02	<0.05	--	<0.05	<0.05
MTCA Cleanup Level for Soil				**0.05**[2]	**0.03**[2]	**160**[3]	**1,600**[3]	**4,000**[3]	**0.67**[4]

NOTES:

[1]Samples analyzed by EPA Method 8260C.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Noncancer, Direct Contact, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[4]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Cancer, Direct Contact, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

-- = not analyzed/not applicable

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

CLARC = Cleanup Levels and Risk Calculations

CVOC = chlorinated volatile organic compound

EPA = U.S. Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

Table 4
Soil Analytical Results for Metals
Rainier Mall North Property
4208 Rainier Avenue
Seattle, Washington

DRAFT

Well/Boring ID	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results[1] (milligrams per kilogram)				
				Arsenic	Cadmium	Chromium	Lead	Mercury
TB01	TB01-05	01/24/18	5.0	2.54	<1	18.8	4.82	<1
TB03	TB03-05	01/24/18	5.0	2.39	<1	28.2	4.26	<1
TB04	TB04-05	01/25/18	5.0	1.79	<1	12.1	8.1	<1
MTCA Cleanup Level for Soil				**20**[2]	**2**[2]	**2,000**[2]	**250**[2]	**2**[2]

NOTES:

[1]Samples analyzed by EPA Method 200.8.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

CLARC = Cleanup Levels and Risk Calculations

EPA = United States Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

SoundEarth Strategies

Table 5
Soil Analytical Results for PAHs
Rainier Mall North Property
4208 Rainier Avenue
Seattle, Washington

DRAFT

Well ID	Sample ID	Date Sampled	**Analytical Results** (milligrams per kilogram)									**cPAHs Toxicity Equivalency** (milligrams per kilogram)							
			Naphthalene	Acenaphthene	Acenaphthylene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(g,h,i)-perylene	Benzo(a)-anthracene TEF: 0.1	Chrysene TEF: 0.01	Benzo(a)pyrene TEF: 1	Benzo(b)-fluoranthene TEF: 0.1	Benzo(k)-fluoranthene TEF: 0.1	Indeno(1,2,3-cd)-pyrene TEF: 0.1	Dibenz(a,h)-anthracene TEF: 0.1	TEQ[1] (milligrams per kilogram)
TB01	TB01-05	01/24/18	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	< 0.2	< 0.1	< 0.2	< 0.2	< 0.2	< 0.2	**0.101**
TB03	TB03-05	01/24/18	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	< 0.2	< 0.1	< 0.2	< 0.2	< 0.2	< 0.2	**0.101**
TB04	TB04-05	01/25/18	<0.01	<0.01	<0.01	<0.01	0.046	<0.01	0.058	0.073	<0.01	0.015	0.028	0.022	0.031	0.012	< 0.010	< 0.010	0.029
MTCA Cleanup Level for Soil			**5**[2]	**4,800**[4]	**NE**	**3,200**[4]	**NE**	**24,000**[4]	**3,200**[4]	**2,400**[4]	**NE**	**1.37**[3]	**137**[3]	**0.1**[2]	**1.37**[3]	**13.7**[3]	**1.37**[3]	**0.137**[3]	**0.1**[2]

NOTES:

Samples analyzed by GC/MS-SIM or EPA Method 8270D.

Bold denotes laboratory reporting limit at or above the cleanup level. TEQ calculation using half of the reporting values, so TEQ is an estimate.

[1]Analytical result for each individual cPAH is multiplied by the TEF and all seven cPAH values are added. When analytical results are reported as less than the LRL, the LRL is listed as the TEQ.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Cancer, Direct Contact, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[4]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non cancer, Direct Contact, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

< = not detected at a concentration exceeding the laboratory reporting limit
CLARC = Cleanup Levels and Risk Calculations
cPAH = carcinogenic polycyclic aromatic hydrocarbon
EPA = U.S. Environmental Protection Agency
LRL = laboratory reporting limit
MTCA = Washington State Model Toxics Control Act
NE = not established
PAH = polycyclic aromatic hydrocarbon
TEF = toxicity equivalency factor
TEQ = toxicity equivalent
WAC = Washington Administrative Code

ATTACHMENT A
LABORATORY ANALYTICAL REPORTS

Friedman & Bruya, Inc. #801002

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

January 9, 2018

Suzy Stumpf, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Stumpf:

Included are the results from the testing of material submitted on January 2, 2018 from the SOU_0611-017_ 20180102, F&BI 801002 project. There are 7 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Grayson Fish
SOU0109R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 2, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180102, F&BI 801002 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801002 -01	SG01-20180102
801002 -02	SG02-20180102
801002 -03	SG03-20180102

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SG01-20180102	Client:	SoundEarth Strategies
Date Received:	01/02/18	Project:	SOU_0611-017_ 20180102, F&BI 801002
Date Collected:	01/02/18	Lab ID:	801002-01 1/10
Date Analyzed:	01/04/18	Data File:	010413.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<2.6	<1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<4	<1
trans-1,2-Dichloroethene	<4	<1
1,1-Dichloroethane	<4	<1
cis-1,2-Dichloroethene	<4	<1
1,2-Dichloroethane (EDC)	<4	<1
1,1,1-Trichloroethane	<5.5	<1
Trichloroethene	<5.4	<1
1,1,2-Trichloroethane	<5.5	<1
Tetrachloroethene	48	7.1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SG02-20180102	Client:	SoundEarth Strategies
Date Received:	01/02/18	Project:	SOU_0611-017_ 20180102, F&BI 801002
Date Collected:	01/02/18	Lab ID:	801002-02 1/10
Date Analyzed:	01/04/18	Data File:	010414.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<2.6	<1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<4	<1
trans-1,2-Dichloroethene	<4	<1
1,1-Dichloroethane	<4	<1
cis-1,2-Dichloroethene	<4	<1
1,2-Dichloroethane (EDC)	<4	<1
1,1,1-Trichloroethane	<5.5	<1
Trichloroethene	<5.4	<1
1,1,2-Trichloroethane	<5.5	<1
Tetrachloroethene	38	5.6

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SG03-20180102	Client:	SoundEarth Strategies
Date Received:	01/02/18	Project:	SOU_0611-017_ 20180102, F&BI 801002
Date Collected:	01/02/18	Lab ID:	801002-03 1/10
Date Analyzed:	01/04/18	Data File:	010415.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<2.6	<1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<4	<1
trans-1,2-Dichloroethene	<4	<1
1,1-Dichloroethane	<4	<1
cis-1,2-Dichloroethene	<4	<1
1,2-Dichloroethane (EDC)	<4	<1
1,1,1-Trichloroethane	<5.5	<1
Trichloroethene	<5.4	<1
1,1,2-Trichloroethane	<5.5	<1
Tetrachloroethene	25	3.6

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180102, F&BI 801002
Date Collected:	Not Applicable	Lab ID:	08-0043 mb
Date Analyzed:	01/04/18	Data File:	010407.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<0.26	<0.1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.4	<0.1
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.54	<0.1
1,1,2-Trichloroethane	<0.55	<0.1
Tetrachloroethene	<0.68	<0.1

Date of Report: 01/09/18
Date Received: 01/02/18
Project: SOU_0611-017_ 20180102, F&BI 801002

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ppbv	10	114	70-130
Chloroethane	ppbv	10	95	70-130
1,1-Dichloroethene	ppbv	10	104	70-130
trans-1,2-Dichloroethene	ppbv	10	109	70-130
1,1-Dichloroethane	ppbv	10	119	70-130
cis-1,2-Dichloroethene	ppbv	10	114	70-130
1,2-Dichloroethane (EDC)	ppbv	10	115	70-130
1,1,1-Trichloroethane	ppbv	10	109	70-130
Trichloroethene	ppbv	10	112	70-130
1,1,2-Trichloroethane	ppbv	10	116	70-130
Tetrachloroethene	ppbv	10	101	70-130

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.

801002

SAMPLE CHAIN OF CUSTODY

ME 01/02/18

Page # 1 of 1

Report To Suzy S., Logan S., Gayle F.

Company SoundEarth Strategies

Address

City, State, ZIP

Phone Email

SAMPLERS (signature)

PROJECT NAME: 0611-017

PO #

REMARKS

INVOICE TO

TURNAROUND TIME
- ☑ Standard
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs		Notes
SG01-20180102	-01	3677	88	1/2/18	28.8	0837	5.0	0843			X		PID=1.1
SG02-20180102	-02	3255	109	↓	29.6	0933	5.0	0937			X		PID=0.4
SG03-20180102	-03	3261	108	↓	30.0	1025	5.0	1034			X		PID=1.7
		COC 1/2/18											
													Samples received at 22 °C

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Schumacher	SES	1/2/18	1535
Received by:	Michael Erdahl	FCR	↓	↓
Relinquished by:				
Received by:				

FORMS\COC\COCTO-15.DOC

Friedman & Bruya, Inc. #801334 and additional

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
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fbi@isomedia.com
www.friedmanandbruya.com

February 2, 2018

Liz Forbes, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Forbes:

Included are the results from the testing of material submitted on January 24, 2018 from the SOU_0611-017_ 20180124, F&BI 801334 project. There are 10 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: Grayson Fish, Jonathan Loeffler
SOU0202R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 24, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180124, F&BI 801334 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801334 -01	TB01-05
801334 -02	TB01-10
801334 -03	TB01-15
801334 -04	TB01-20
801334 -05	TB02-05
801334 -06	TB02-10
801334 -07	TB02-15
801334 -08	TB02-20
801334 -09	TB03-05
801334 -10	TB03-10

All quality control requirements were acceptable.

Date of Report: 02/02/18
Date Received: 01/24/18
Project: SOU_0611-017_ 20180124, F&BI 801334
Date Extracted: 01/31/18
Date Analyzed: 01/31/18

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
TB01-15 801334-03	15	110
TB02-15 801334-07	<5	102
Method Blank 08-226 MB	<5	110

Date of Report: 02/02/18
Date Received: 01/24/18
Project: SOU_0611-017_ 20180124, F&BI 801334
Date Extracted: 01/31/18
Date Analyzed: 01/31/18

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 56-165)
TB01-15 801334-03	110 x	<250	103
TB02-15 801334-07	<50	<250	94
Method Blank 08-263 MB	<50	<250	96

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TB01-15	Client:	SoundEarth Strategies
Date Received:	01/24/18	Project:	SOU_0611-017_ 20180124
Date Extracted:	01/30/18	Lab ID:	801334-03
Date Analyzed:	01/30/18	Data File:	013025.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	99	65	139

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TB02-15	Client:	SoundEarth Strategies
Date Received:	01/24/18	Project:	SOU_0611-017_ 20180124
Date Extracted:	01/30/18	Lab ID:	801334-07
Date Analyzed:	01/30/18	Data File:	013026.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180124
Date Extracted:	01/30/18	Lab ID:	08-0210 mb
Date Analyzed:	01/30/18	Data File:	013007.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	99	65	139

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

Date of Report: 02/02/18
Date Received: 01/24/18
Project: SOU_0611-017_ 20180124, F&BI 801334

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

Laboratory Code: 801334-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	5.4	14	89 a

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	95	71-131

Date of Report: 02/02/18
Date Received: 01/24/18
Project: SOU_0611-017_ 20180124, F&BI 801334

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

Laboratory Code: 801421-01 (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	106	106	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	106	79-144

Date of Report: 02/02/18
Date Received: 01/24/18
Project: SOU_0611-017_ 20180124, F&BI 801334

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

Laboratory Code: 801325-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	46	46	10-138	0
Chloroethane	mg/kg (ppm)	2.5	<0.5	61	57	10-176	7
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	67	70	10-160	4
Methylene chloride	mg/kg (ppm)	2.5	<0.5	74	74	10-156	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	75	75	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	79	77	19-140	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	82	82	25-135	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	81	80	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	78	77	10-156	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	83	81	21-139	2
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	79	80	20-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	73	22-139
Chloroethane	mg/kg (ppm)	2.5	78	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	94	47-128
Methylene chloride	mg/kg (ppm)	2.5	101	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	98	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	98	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	100	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	100	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	98	62-131
Trichloroethene	mg/kg (ppm)	2.5	99	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	97	72-114

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

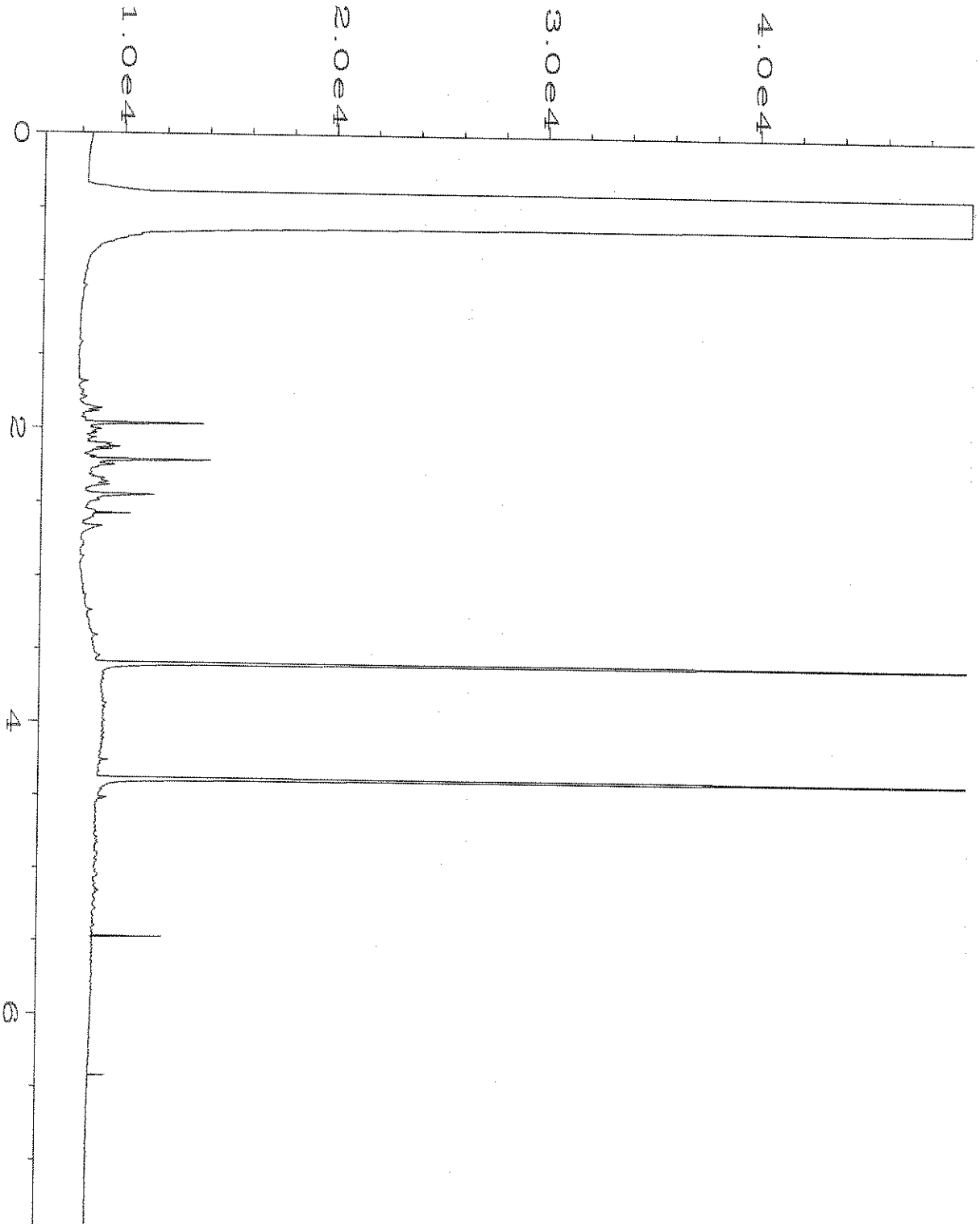
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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

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

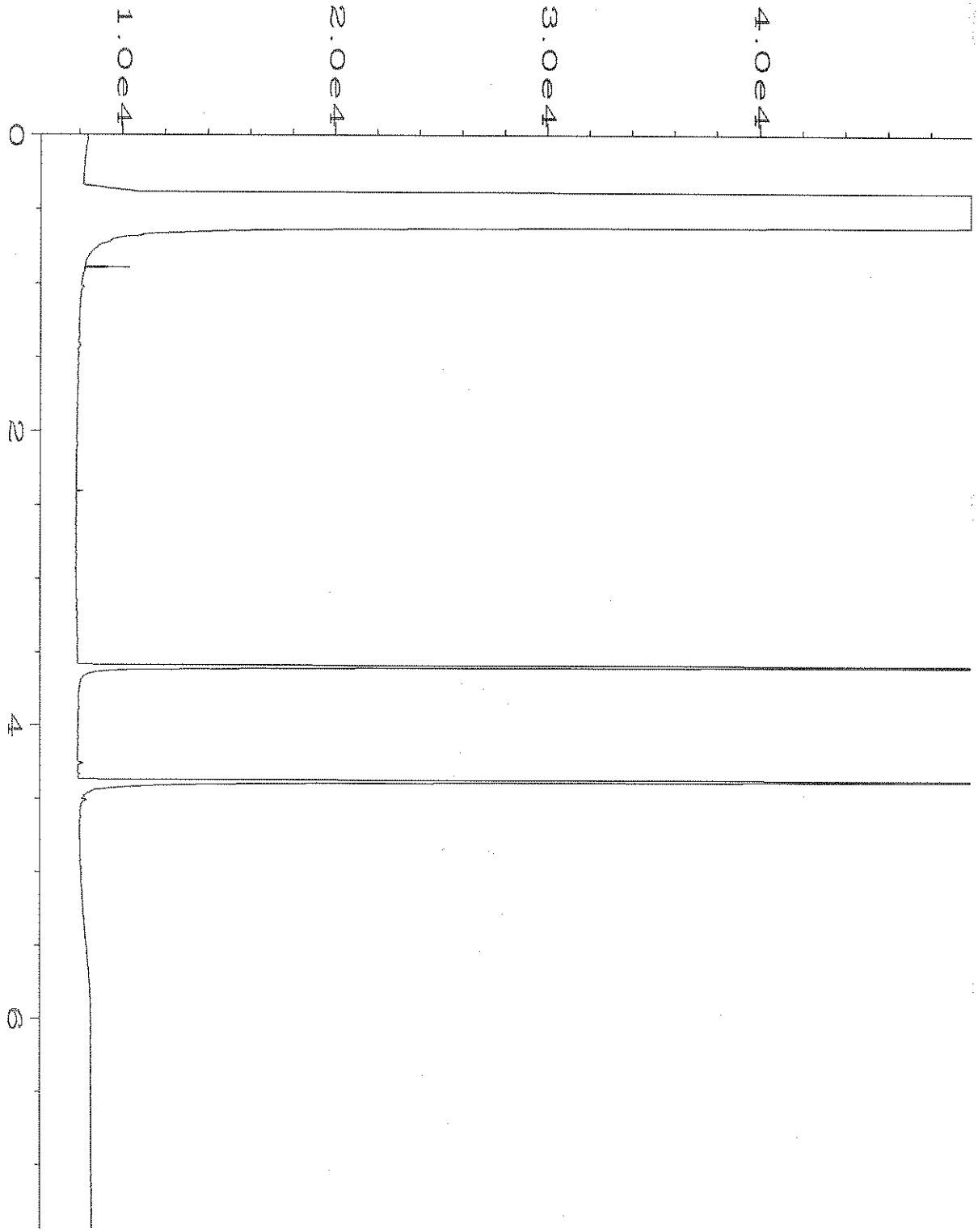
vo - The value reported fell outside the control limits established for this analyte.

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



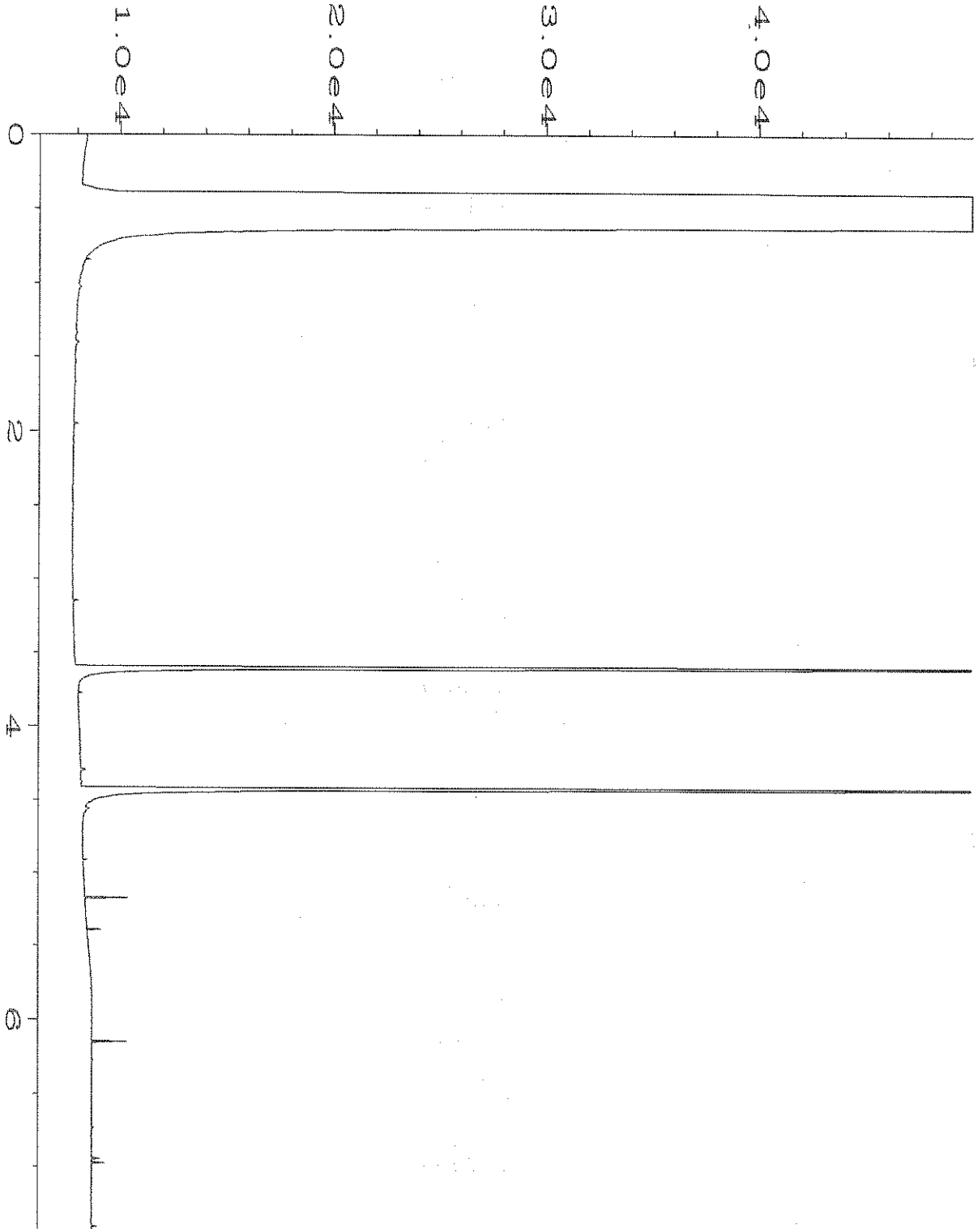
Data File Name : C:\HPCHEM\1\DATA\01-31-18\035F0301.D
Operator : mwdl
Instrument : GC1
Sample Name : 801334-03
Run Time Bar Code:
Acquired on : 31 Jan 18 02:23 PM
Report Created on: 01 Feb 18 07:34 AM

Page Number : 1
Vial Number : 35
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



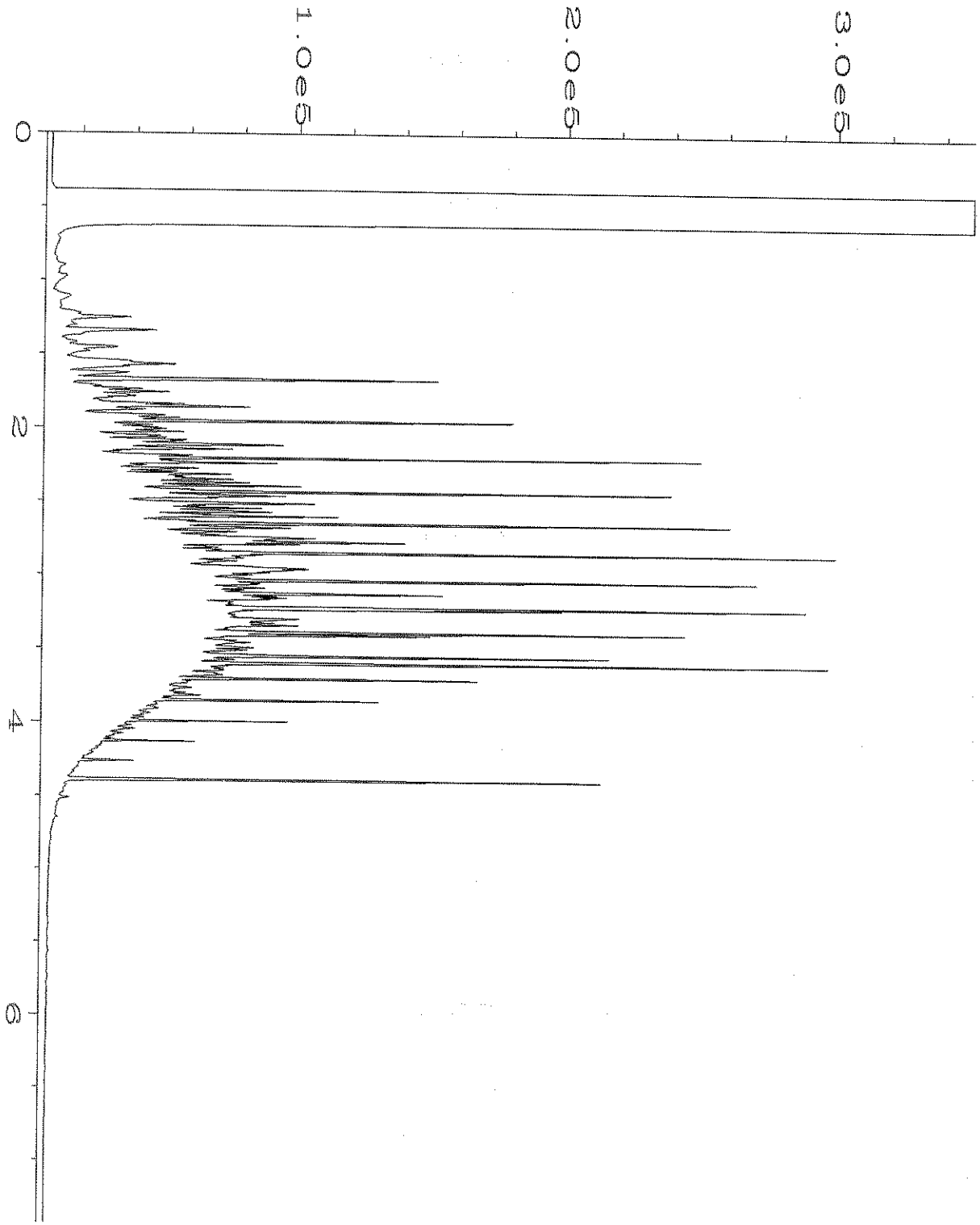
Data File Name : C:\HPCHEM\1\DATA\01-31-18\036F0301.D
Operator : mwdl
Instrument : GC1
Sample Name : 801334-07
Run Time Bar Code:
Acquired on : 31 Jan 18 02:35 PM
Report Created on: 01 Feb 18 07:34 AM

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\1\DATA\01-31-18\013F0301.D
Operator : mwdl
Instrument : GC1
Sample Name : 08-263 mb
Run Time Bar Code:
Acquired on : 31 Jan 18 10:18 AM
Report Created on: 01 Feb 18 07:34 AM

Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\01-31-18\005F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 5
Sample Name	: 1000 Dx 52-185B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Jan 18 02:57 PM	Instrument Method	: DX.MTH
Report Created on	: 01 Feb 18 07:34 AM	Analysis Method	: DX.MTH

801324
Liz Forbes

SAMPLE CHAIN OF CUSTODY

ME 01-24-18 1402

Page # 1 of 1

Send Report to [redacted], Grayson Fish, Jon Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. Rainier Mall / 0611-017

PO #

REMARKS (X) 2 DAY TURN
Run per EBF

TURNAROUND TIME
(X) Standard (2 Weeks)
RUSH 2 DAY
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	CVOCs by 8260	SVOCs by 8270			7OH	Notes
TB01-05	TB01	5'	01 AE	1/24/18	0938	SOIL	5								X	
TB01-10	TB01	10'	02		0945		5								X	
TB01-15	TB01	15'	03		0950		5				(X)				X	
TB01-20	TB01	20'	04		0955		5								X	
TB02-05	TB02	5'	05 AE		1035		4								X	
TB02-10	TB02	10'	06 AE		1045		5								X	
TB02-15	TB02	15'	07		1055		5				(X)				X	
TB02-20	TB02	20'	08		1105		5								X	
TB03-05	TB03	5'	09		1300		5								X	
TB03-10	TB03	10'	10		1305		5								X	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Jonathan Loeffler	SoundEarth	1/24/18	1600
Received by:	VIN H	FBI	1/24/18	1600
Relinquished by:				
Received by:			Samples received at	6 °C

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

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

3012 16th Avenue West
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fbi@isomedia.com
www.friedmanandbruya.com

February 13, 2018

Liz Forbes, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Forbes:

Included are the additional results from the testing of material submitted on January 24, 2018 from the SOU_0611-017_ 20180124, F&BI 801334 project. There are 10 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Grayson Fish, Jonathan Loeffler
SOU0213R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 24, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180124, F&BI 801334 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801334 -01	TB01-05
801334 -02	TB01-10
801334 -03	TB01-15
801334 -04	TB01-20
801334 -05	TB02-05
801334 -06	TB02-10
801334 -07	TB02-15
801334 -08	TB02-20
801334 -09	TB03-05
801334 -10	TB03-10

An 8270D internal standard failed the acceptance criteria for sample TB03-05 due to matrix interferences. The data were flagged accordingly.

The benzo(a) pyrene reporting limit was lowered below the standard reporting limit. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020A

Client ID:	TB01-05	Client:	SoundEarth Strategies
Date Received:	01/24/18	Project:	SOU_0611-017_ 20180124
Date Extracted:	02/09/18	Lab ID:	801334-01
Date Analyzed:	02/09/18	Data File:	801334-01.067
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.54
Cadmium	<1
Chromium	18.8
Lead	4.82
Mercury	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	TB03-05	Client:	SoundEarth Strategies
Date Received:	01/24/18	Project:	SOU_0611-017_ 20180124
Date Extracted:	02/09/18	Lab ID:	801334-09
Date Analyzed:	02/09/18	Data File:	801334-09.068
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.39
Cadmium	<1
Chromium	28.2
Lead	4.26
Mercury	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180124
Date Extracted:	02/09/18	Lab ID:	I8-095 mb
Date Analyzed:	02/09/18	Data File:	I8-095 mb.050
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	TB01-05	Client:	SoundEarth Strategies
Date Received:	01/24/18	Project:	SOU_0611-017_ 20180124
Date Extracted:	02/07/18	Lab ID:	801334-01 1/100
Date Analyzed:	02/08/18	Data File:	020809.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	137 d	31	163
Benzo(a)anthracene-d12	121 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.2
Acenaphthylene	<0.2
Acenaphthene	<0.2
Fluorene	<0.2
Phenanthrene	<0.2
Anthracene	<0.2
Fluoranthene	<0.2
Pyrene	<0.2
Benz(a)anthracene	<0.2
Chrysene	<0.2
Benzo(a)pyrene	<0.1 j
Benzo(b)fluoranthene	<0.2
Benzo(k)fluoranthene	<0.2
Indeno(1,2,3-cd)pyrene	<0.2
Dibenz(a,h)anthracene	<0.2
Benzo(g,h,i)perylene	<0.2

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	TB03-05	Client:	SoundEarth Strategies
Date Received:	01/24/18	Project:	SOU_0611-017_ 20180124
Date Extracted:	02/07/18	Lab ID:	801334-09 1/100
Date Analyzed:	02/08/18	Data File:	020810.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	97 d	31	163
Benzo(a)anthracene-d12	138 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.2
Acenaphthylene	<0.2
Acenaphthene	<0.2
Fluorene	<0.2
Phenanthrene	<0.2
Anthracene	<0.2
Fluoranthene	<0.2
Pyrene	<0.2
Benz(a)anthracene	<0.2
Chrysene	<0.2
Benzo(a)pyrene	<0.1 j J
Benzo(b)fluoranthene	<0.2 J
Benzo(k)fluoranthene	<0.2 J
Indeno(1,2,3-cd)pyrene	<0.2 J
Dibenz(a,h)anthracene	<0.2 J
Benzo(g,h,i)perylene	<0.2 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180124
Date Extracted:	02/07/18	Lab ID:	08-290 mb2 1/5
Date Analyzed:	02/07/18	Data File:	020713.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	105	31	163
Benzo(a)anthracene-d12	108	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Date of Report: 02/13/18
Date Received: 01/24/18
Project: SOU_ 0611-017_ 20180124, F&BI 801334

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020A

Laboratory Code: 802102-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	1.30	88	87	75-125	1
Cadmium	mg/kg (ppm)	10	<1	88	84	75-125	5
Chromium	mg/kg (ppm)	50	8.24	81	80	75-125	1
Lead	mg/kg (ppm)	50	2.92	82	78	75-125	5
Mercury	mg/kg (ppm	5	<1	79	81	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	100	80-120
Cadmium	mg/kg (ppm)	10	106	80-120
Chromium	mg/kg (ppm)	50	105	80-120
Lead	mg/kg (ppm)	50	101	80-120
Mercury	mg/kg (ppm)	5	100	80-120

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: 802035-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	88	44-129
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	86	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	87	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	86	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	86	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	81	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	87	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	89	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	91	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	94	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	91	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	97	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	85	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	87	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	86	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	83	37-133

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	88	91	58-121	3
Acenaphthylene	mg/kg (ppm)	0.17	85	88	54-121	3
Acenaphthene	mg/kg (ppm)	0.17	87	91	54-123	4
Fluorene	mg/kg (ppm)	0.17	86	89	56-127	3
Phenanthrene	mg/kg (ppm)	0.17	87	90	55-122	3
Anthracene	mg/kg (ppm)	0.17	84	86	50-120	2
Fluoranthene	mg/kg (ppm)	0.17	86	92	54-129	7
Pyrene	mg/kg (ppm)	0.17	84	91	53-127	8
Benz(a)anthracene	mg/kg (ppm)	0.17	90	95	51-115	5
Chrysene	mg/kg (ppm)	0.17	93	97	55-129	4
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	94	100	56-123	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	94	100	54-131	6
Benzo(a)pyrene	mg/kg (ppm)	0.17	82	84	51-118	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	86	86	49-148	0
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	87	89	50-141	2
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	84	84	52-131	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.

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.

801284 LIE FOR DEC

SAMPLE CHAIN OF CUSTODY HE 01-24-18

Page # 1 of 1

Send Report to [redacted], Grayson Fish, Jon Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.: Rainier Mall / 0611-017

PO #

REMARKS (X) 2 DAY TURN Run per EBF

TURNAROUND TIME
(X) Standard (2 Weeks)
RUSH 2 DAY
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	CVOCs by 8260	SVOCs by 8270	MTCA 5 METALS	PAHs 8270D	NWTPH-HCID	Notes
TB01-05	TB01	5'	01 AE	1/24/18	0938	SOIL	5						(X)	(X)	X	RUN 5-DAY TURN
TB01-10	TB01	10'	02		0945		5								X	
TB01-15	TB01	15'	03		0950		5				(X)				X	
TB01-20	TB01	20'	04		0955		5								X	
TB02-05	TB02	5'	05 AE		1035		4								X	
TB02-10	TB02	10'	06 AE		1045		5								X	
TB02-15	TB02	15'	07		1055		5				(X)				X	
TB02-20	TB02	20'	08		1105		5								X	
TB03-05	TB03	5'	09		1300		5						(X)	(X)	X	RUN 5-DAY TURN
TB03-10	TB03	10'	10		1305		5								X	

EBF 2/7

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JONATHAN LOEFFLER	SOUNDEARTH	1/24/18	1600
Received by:	VINH	FBI	1/24/18	1640
Relinquished by:				
Received by:			Samples received at	6 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
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Friedman & Bruya, Inc. #801363

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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Eric Young, B.S.

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February 13, 2018

Liz Forbes, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Forbes:

Included are the results from the testing of material submitted on January 26, 2018 from the SOU_0611-017_ 20180126, F&BI 801363 project. There are 15 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: Logan Schumacher, Grayson Fish
SOU0213R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 26, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180126, F&BI 801363 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801363 -01	TB04-05
801363 -02	TB04-10
801363 -03	TB04-15
801363 -04	TB05-05
801363 -05	TB05-10
801363 -06	TB05-15
801363 -07	TB06-05
801363 -08	TB06-10
801363 -09	TB06-15

The 8260C matrix spike and matrix spike duplicate failed the relative percent difference for hexachlorobutadiene. The analyte was not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363
Date Extracted: 02/05/18
Date Analyzed: 02/05/18

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
TB05-05 801363-04	<5	98
Method Blank 08-231 MB	<5	99

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363
Date Extracted: 02/02/18
Date Analyzed: 02/02/18

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
TB05-05 801363-04	190 x	5,100	122
Method Blank 08-271 MB	<50	<250	108

Analysis For Total Metals By EPA Method 6020A

Client ID:	TB04-05	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/09/18	Lab ID:	801363-01
Date Analyzed:	02/09/18	Data File:	801363-01.070
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.79
Cadmium	<1
Chromium	12.1
Lead	8.10
Mercury	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/09/18	Lab ID:	I8-095 mb
Date Analyzed:	02/09/18	Data File:	I8-095 mb.050
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	TB04-05	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/07/18	Lab ID:	801363-01 1/5
Date Analyzed:	02/07/18	Data File:	020717.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	103	31	163
Benzo(a)anthracene-d12	106	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.046
Anthracene	<0.01
Fluoranthene	0.058
Pyrene	0.073
Benz(a)anthracene	0.015
Chrysene	0.028
Benzo(a)pyrene	0.022
Benzo(b)fluoranthene	0.031
Benzo(k)fluoranthene	0.012
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/07/18	Lab ID:	08-290 mb2 1/5
Date Analyzed:	02/07/18	Data File:	020713.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	105	31	163
Benzo(a)anthracene-d12	108	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TB05-05	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/05/18	Lab ID:	801363-04
Date Analyzed:	02/05/18	Data File:	020511.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/05/18	Lab ID:	08-218 mb2
Date Analyzed:	02/05/18	Data File:	020508.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	102	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363

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

Laboratory Code: 802022-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

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

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363

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

Laboratory Code: 802032-02 (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	88	102	73-135	15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	86	74-139

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020A

Laboratory Code: 802102-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	1.30	88	87	75-125	1
Cadmium	mg/kg (ppm)	10	<1	88	84	75-125	5
Chromium	mg/kg (ppm)	50	8.24	81	80	75-125	1
Lead	mg/kg (ppm)	50	2.92	82	78	75-125	5
Mercury	mg/kg (ppm	5	<1	79	81	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	100	80-120
Cadmium	mg/kg (ppm)	10	106	80-120
Chromium	mg/kg (ppm)	50	105	80-120
Lead	mg/kg (ppm)	50	101	80-120
Mercury	mg/kg (ppm)	5	100	80-120

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: 802035-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	<0.01	88	44-129
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	86	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	87	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	86	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	86	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	81	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	87	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	89	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	91	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	94	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	91	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	97	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	85	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	87	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	86	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	83	37-133

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	88	91	58-121	3
Acenaphthylene	mg/kg (ppm)	0.17	85	88	54-121	3
Acenaphthene	mg/kg (ppm)	0.17	87	91	54-123	4
Fluorene	mg/kg (ppm)	0.17	86	89	56-127	3
Phenanthrene	mg/kg (ppm)	0.17	87	90	55-122	3
Anthracene	mg/kg (ppm)	0.17	84	86	50-120	2
Fluoranthene	mg/kg (ppm)	0.17	86	92	54-129	7
Pyrene	mg/kg (ppm)	0.17	84	91	53-127	8
Benz(a)anthracene	mg/kg (ppm)	0.17	90	95	51-115	5
Chrysene	mg/kg (ppm)	0.17	93	97	55-129	4
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	94	100	56-123	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	94	100	54-131	6
Benzo(a)pyrene	mg/kg (ppm)	0.17	82	84	51-118	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	86	86	49-148	0
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	87	89	50-141	2
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	84	84	52-131	0

Date of Report: 02/13/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801363

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

Laboratory Code: 801364-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	81	69	10-138	16
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	95	79	10-160	18
Trichloroethene	mg/kg (ppm)	2.5	<0.02	103	86	21-139	18
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	111	95	20-133	16

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	82	22-139
1,1-Dichloroethene	mg/kg (ppm)	2.5	89	47-128
Trichloroethene	mg/kg (ppm)	2.5	91	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	101	72-114

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

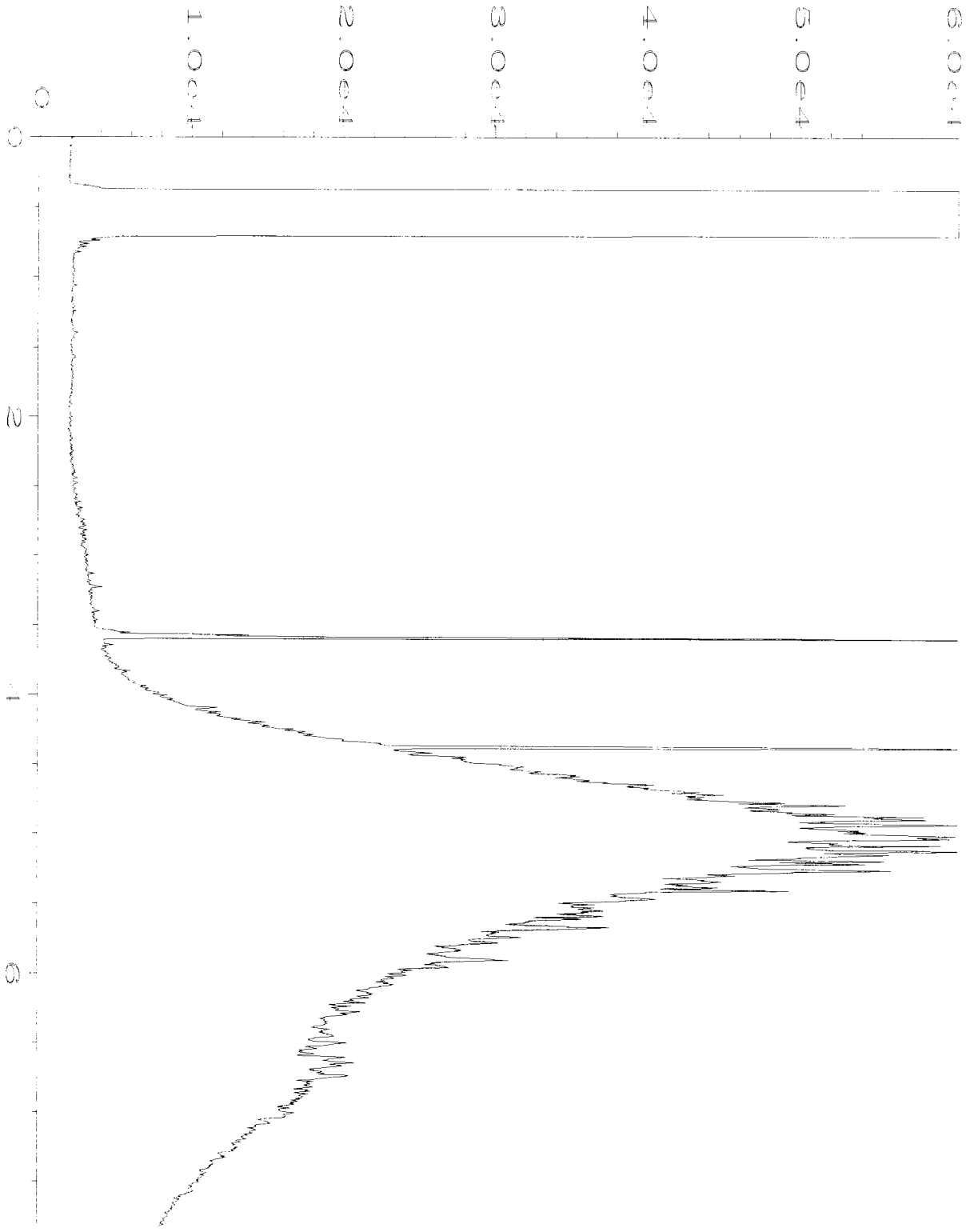
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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

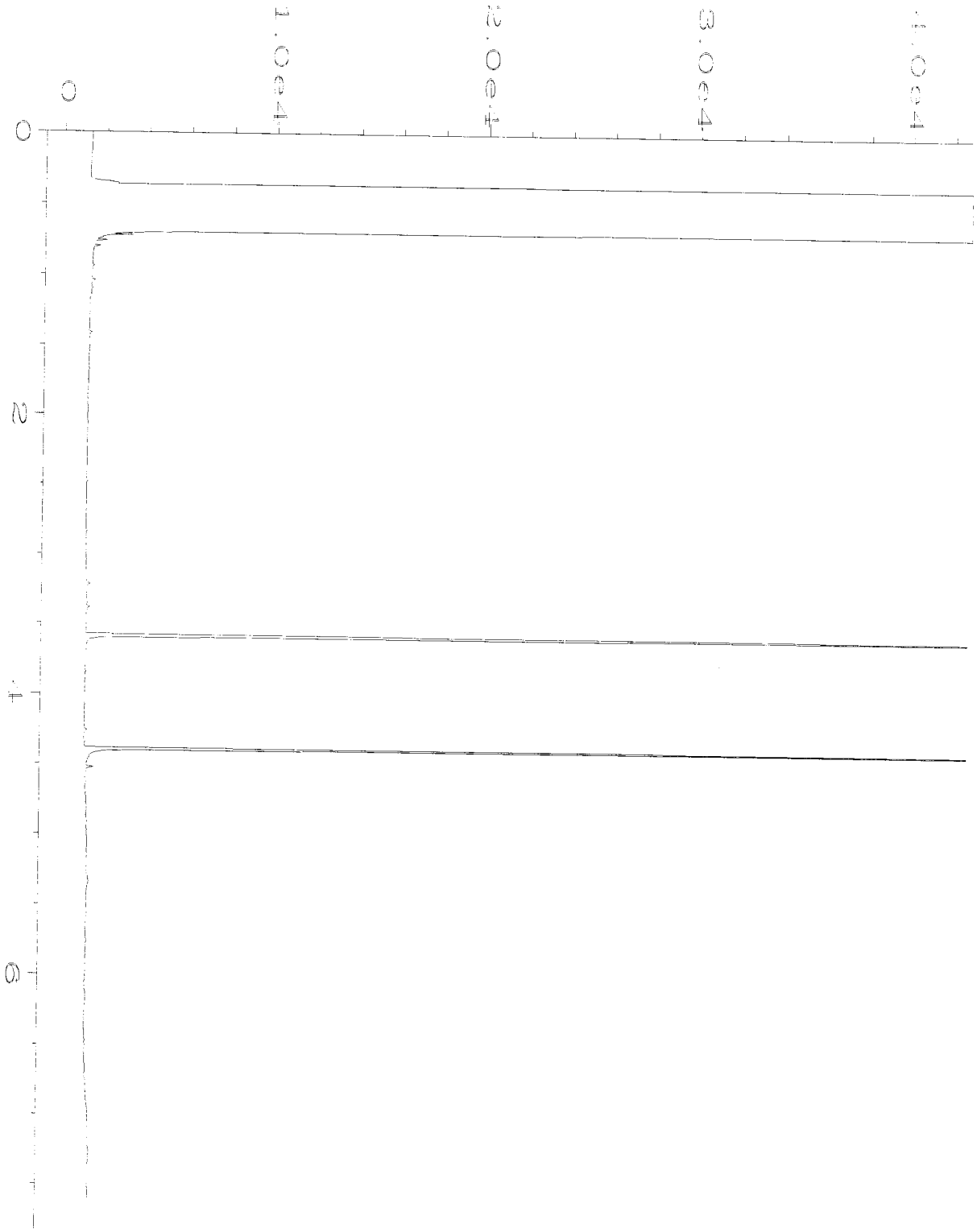
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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

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



Data File Name	: C:\HPCHEM\4\DATA\02-02-18\018F0301.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 18
Sample Name	: 801363-04	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 02 Feb 18 02:36 PM	Instrument Method	: DX.MTH
Report Created on	: 05 Feb 18 07:54 AM	Analysis Method	: DX.MTH



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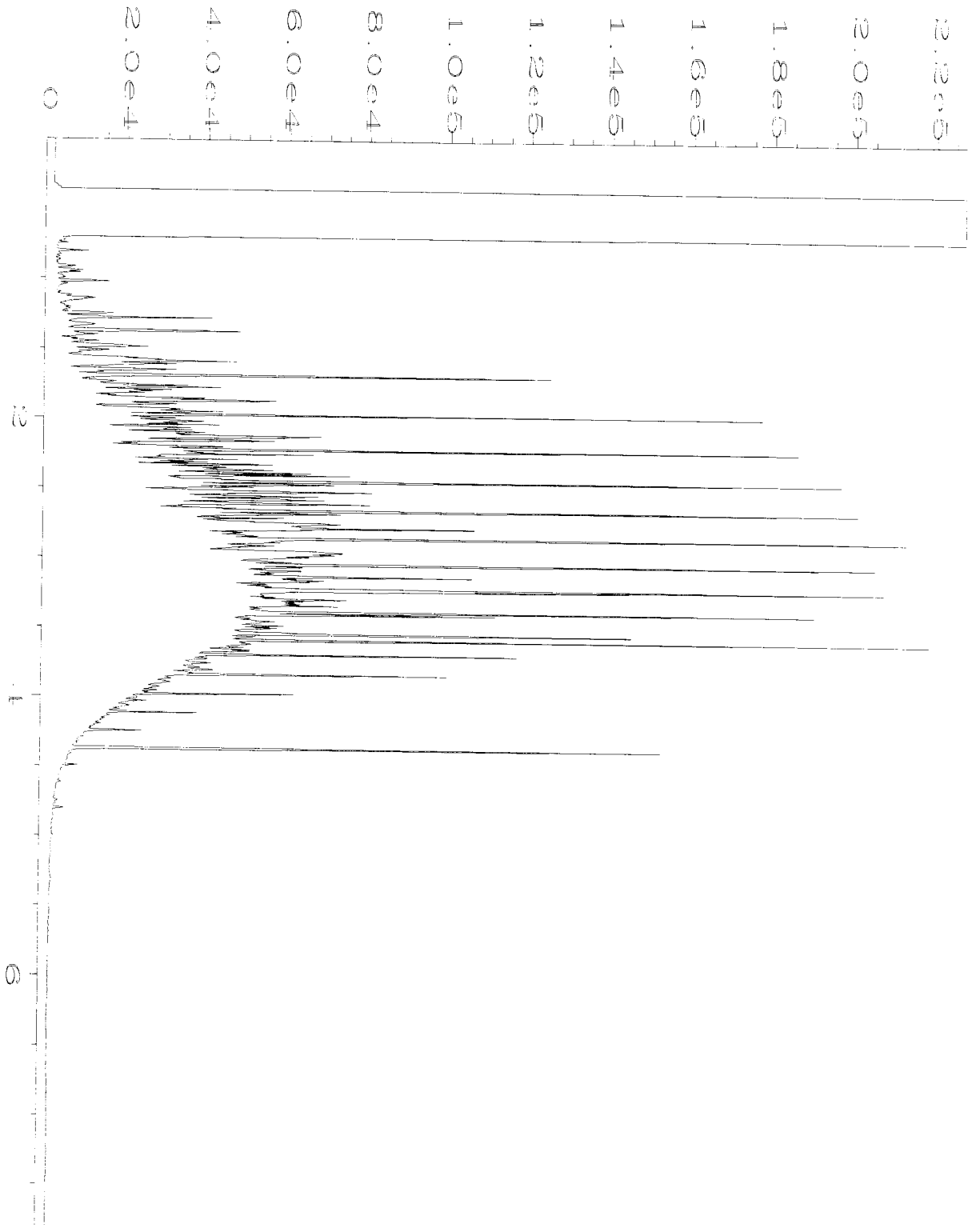
Operator : mwdl
Instrument : GC#4
Sample Name : 08-271 mb
Run Time Bar Code:
Acquired on : 02 Feb 18 12:06 PM
Report Created on: 05 Feb 18 07:54 AM

Page Number : 1
Vial Number : 6
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\4\DATA\02-02-18\005F0501.D
Operator : mwdl
Instrument : GC#4
Sample Name : 1000 Dx 52-185B
Run Time Bar Code:
Acquired on : 02 Feb 18 03:23 PM
Report Created on: 05 Feb 18 07:55 AM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH

801363

Liz Forbes, Logan Schumacher

SAMPLE CHAIN OF CUSTODY

ME 01/26/18

Send Report to ~~Suzy Stroup~~ Grayson Fish

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. Rainier Mall / 0611-017

PO #

REMARKS Hold all • std TAT PCE, TCE, 1,1 DCE cis 1,2 DCE, VC!

Page # 1 of 1 / 152 / 403

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	MTCA 5 Metals	PAHs		Notes
TB04-05	TB04	5	01 A-E	1/25/18	0805	Soil	5						⊗	⊗		PEL ESP 217 Run 5-DAY TURN
TB04-10	↓	10	02		0810											
TB04-15	↓	15	03		0815											
TB05-05	TB05	5	04		0945			•	•		•					
TB05-10	↓	10	05		0950											• pcLS
TB05-15	↓	15	06		0955											2/2/18
TB06-05	TB06	5	07		1110											MS
TB06-10	↓	10	08		1115											
TB06-15	↓	15	09	↓	1120	↓	↓									
		CHS 1/25/18														

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Schumacher	SoundEarth	1/26/18	1020
Received by:	VIW H	FBI	1/26/18	10:20
Relinquished by:				
Received by:				

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

FORMS\COC\COC.DOC

Friedman & Bruya, Inc. #801365

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

February 12, 2018

Liz Forbes, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Forbes:

Included are the results from the testing of material submitted on January 26, 2018 from the SOU_0611-017_ 20180126, F&BI 801365 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
c: Grayson Fish, Logan Schumacher
SOU0212R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 26, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180126, F&BI 801365 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801365 -01	B10-2.5
801365 -02	B10-05
801365 -03	B10-10
801365 -04	B10-15
801365 -05	B10-20

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B10-2.5	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/07/18	Lab ID:	801365-01
Date Analyzed:	02/07/18	Data File:	020719.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	62	142
Toluene-d8	94	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/07/18	Lab ID:	08-0283 mb
Date Analyzed:	02/07/18	Data File:	020710.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	62	142
Toluene-d8	95	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 02/12/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801365

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

Laboratory Code: 801364-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	81	69	10-138	16
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	95	79	10-160	18
Trichloroethene	mg/kg (ppm)	2.5	<0.02	103	86	21-139	18
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	111	95	20-133	16

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	82	22-139
1,1-Dichloroethene	mg/kg (ppm)	2.5	89	47-128
Trichloroethene	mg/kg (ppm)	2.5	91	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	101	72-114

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Liz Fabis 801365

SAMPLE CHAIN OF CUSTODY

ME 01/26/18

VSQ/AO2

Page # 1 of 1

Send Report to ~~Suzy Stumpf~~, Grayson Fish

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.: Rainier Mall / 0611-017

PO #

REMARKS: Holding, Contact PM

CVOCs = PCE, TCE, DCE, VC

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270	MTCA 5 Metals			Notes
B10-025	B10	2.5	01	1/26/18	0825	Soil	5				⊗					RUN PER EBF 2/7 STANDARD 5-DAY
B10-05		05	02		0831											
B10-10		10	03		0835											
B10-15		15	04		0840											
B10-20		20	05		0845											

GEF 1/26/18

Samples received at 4°C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Grayson Fish	SoundEarth	1/26/18	1020
Received by:	VINH	FBI	1/26/18	1620
Relinquished by:				
Received by:				

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

Friedman & Bruya, Inc. #801370 and additional

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

February 1, 2018

Liz Forbes, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Forbes:

Included are the results from the testing of material submitted on January 26, 2018 from the SOU_0611-017_ 20180126, F&BI 801370 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: Logan Schumacher, Grayson Fish
SOU0201R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 26, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180126, F&BI 801370 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801370 -01	B06-05
801370 -02	B06-10
801370 -03	B06-12.5
801370 -04	B06-15
801370 -05	B06-17.5
801370 -06	B06-20
801370 -07	B06-25
801370 -08	B06-30
801370 -09	B06-35
801370 -10	B06-40
801370 -11	B06-45
801370 -12	B06-50
801370 -13	B11-10
801370 -14	B11-15
801370 -15	B11-20
801370 -16	B11-25
801370 -17	B06-B11-Comp

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B06-15	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	01/29/18	Lab ID:	801370-04
Date Analyzed:	01/29/18	Data File:	012924.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	0.47
Trichloroethene	0.19
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B06-20	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	01/29/18	Lab ID:	801370-06
Date Analyzed:	01/29/18	Data File:	012914.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	103	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180126
Date Extracted:	01/29/18	Lab ID:	08-0209 mb
Date Analyzed:	01/29/18	Data File:	012908.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 02/01/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801370

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

Laboratory Code: 801370-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	67	61	10-138	9
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	89	84	10-160	6
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	99	98	25-135	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	99	99	21-139	0
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	97	98	20-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	77	22-139
1,1-Dichloroethene	mg/kg (ppm)	2.5	93	47-128
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	96	72-113
Trichloroethene	mg/kg (ppm)	2.5	95	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	94	72-114

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

80137O
Lz Forbes, Logan S

SAMPLE CHAIN OF CUSTODY

MG 01/26/18

Page # 1 of 2

Send Report to: ~~Suzy Stumpf, Grayson Fish~~

Company: SoundEarth Strategies, Inc.

Address: 2811 Fairview Avenue E, Suite 2000

City, State, ZIP: Seattle, Washington 98102

Phone #: 206-306-1900 Fax #: 206-306-1907

SAMPLERS (signature):

PROJECT NAME/NO.: Rainier Mall / 0611-017

PO #:

REMARKS: * CVOCs = (PCE, TCE, 1,1-DCE, cis-1,2-DCE, VC)

TURNAROUND TIME: Standard (2 Weeks) RUSH 3 day

Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	* CVOCs by 8260	SVOCs by 8270				Notes
B06-05	B06	5	01 AE	1/26/18	0945	Soil	5									
B06-10		10	02		0950											
B06-12.5		12.5	03		0955						X					RUN PER EBF 1/31
B06-15		15	04		1005						X					
B06-17.5		17.5	05		1010											
B06-20		20	06		1015						X					
B06-25		25	07		1030											
B06-30		30	08		1040											
B06-35		35	09		1050											
B06-40	↓	40	10	↓	1105	↓	↓									

Samples received at 2 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Schumacher	SoundEarth	1/26/18	1425
Received by:	VMH	FBI	1/26/18	1425
Relinquished by:				
Received by:				

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

COC.DOC

801370
Le Febvre, Logan S

SAMPLE CHAIN OF CUSTODY ME 1/26/18

Page # 2 of 2 1/04/18

Send Report to ~~Suzy Stumpf~~ Grayson Fish

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E. Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. Rainier Mall / 0611-017

PO #

REMARKS See Page 1 for *

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	* VOCs by 8260	SVOCs by 8270					Notes
B06-45	B06	45	11	1/26/18	1115	Soil	5										
B06-50	↓	50	12		1120						X						RUN PER EDF 1/31
B11-10	B11	10	13		1250												
B11-15		15	14		1255												
B11-20		20	15		1305												
B11-25		25	16		1310												
B06-B11-COMP	B06-B11		17	1/26/18	1330		1										

EDF 1/26/18

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Sakumichi	SoundEarth	1/26/18	1425
Received by:	VINH	FBI	1/26/18	1425
Relinquished by:				
Received by:				

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

MS\COC\COC.DOC

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

February 7, 2018

Liz Forbes, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Forbes:

Included are the additional results from the testing of material submitted on January 26, 2018 from the SOU_0611-017_ 20180126, F&BI 801370 project. There are 8 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU0207R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 26, 2018 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0611-017_ 20180126, F&BI 801370 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
801370 -01	B06-05
801370 -02	B06-10
801370 -03	B06-12.5
801370 -04	B06-15
801370 -05	B06-17.5
801370 -06	B06-20
801370 -07	B06-25
801370 -08	B06-30
801370 -09	B06-35
801370 -10	B06-40
801370 -11	B06-45
801370 -12	B06-50
801370 -13	B11-10
801370 -14	B11-15
801370 -15	B11-20
801370 -16	B11-25
801370 -17	B06-B11-Comp

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B06-12.5	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/01/18	Lab ID:	801370-03
Date Analyzed:	02/02/18	Data File:	020221.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	0.15
Trichloroethene	0.097
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B06-50	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/01/18	Lab ID:	801370-12
Date Analyzed:	02/02/18	Data File:	020222.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B11-15	Client:	SoundEarth Strategies
Date Received:	01/26/18	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/02/18	Lab ID:	801370-14
Date Analyzed:	02/02/18	Data File:	020218.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	ClientID
Date Received:	Not Applicable	Project:	ProjectID
Date Extracted:	02/02/18	Lab ID:	08-0215 mb2
Date Analyzed:	02/02/18 10:35	Data File:	020205.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0611-017_ 20180126
Date Extracted:	02/01/18	Lab ID:	08-0215 mb
Date Analyzed:	02/01/18	Data File:	020121.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
1,1-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 02/07/18
Date Received: 01/26/18
Project: SOU_0611-017_ 20180126, F&BI 801370

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

Laboratory Code: 801370-12 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	40	39	10-138	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	58	56	10-160	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	74	71	25-135	4
Trichloroethene	mg/kg (ppm)	2.5	<0.02	73	70	21-139	4
Tetrachloroethene	mg/kg (ppm)	2.5	0.024	71	67	20-133	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	79	22-139
1,1-Dichloroethene	mg/kg (ppm)	2.5	95	47-128
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	100	72-113
Trichloroethene	mg/kg (ppm)	2.5	98	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	95	72-114

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

80370
L2 Forbes, Logan S

SAMPLE CHAIN OF CUSTODY

MTG 01/26/18

Page # 1 of 2

Send Report to: ~~Suzy Stumpf~~, Grayson Fish

Company: SoundEarth Strategies, Inc.

Address: 2811 Fairview Avenue E, Suite 2000

City, State, ZIP: Seattle, Washington 98102

Phone #: 206-306-1900 Fax #: 206-306-1907

SAMPLERS (signature):

PROJECT NAME/NO.: Rainier Mall / 0611-017

PO #:

REMARKS: * CVOCs = (PCE, TCE, 1,1-DCE, cis-1,2-DCE, VC)

TURNAROUND TIME
Standard (2 Weeks)
(RUSH) 3 day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	* VOCs by 8260	SVOCs by 8270				Notes
B06-05	B06	5	01	1/26/18	0945	Soil	5									
B06-10		10	02		0950											
B06-12.5		12.5	03		0955						X					RUN PER EDF 1/31
B06-15		15	04		1005						X					
B06-17.5		17.5	05		1010											
B06-20		20	06		1015						X					
B06-25		25	07		1030											
B06-30		30	08		1040											Samples received at 2 °C
B06-35		35	09		1050											
B06-40	↓	40	10	↓	1105	↓	↓									

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Schumacher	SoundEarth	1/26/18	1428
Received by:	VINH	FBI	1/26/18	1425
Relinquished by:				
Received by:				

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

COC.DOC

801370
La Fortune, Logan S

SAMPLE CHAIN OF CUSTODY MS 1/26/18

Page # 2 of 2 1/04/18

Send Report to ~~Stacy Stumbf~~ Grayson Fish

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. Rainier Mall / 0611-017

PO #

REMARKS See Page 1 for *

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	* VOCs by 8260	SVOCs by 8270				Notes
B06-45	B06	45	11	1/26/18	1115	Soil	5									
B06-50	↓	50	12		1120						X					RUN PER EGF 1/31
B11-10	B11	10	13		1250											
B11-15		15	14		1255						X					
B11-20		20	15		1305											
B11-25		25	16		1310											
B06-B11-COMP	B06-B11		17	1/26/18	1330		1									
							EGF	1/26/18								

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Sakumichi	SoundEarth	1/26/18	1425
Received by:	VINH	FBI	1/26/18	1425
Relinquished by:				
Received by:				

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Seattle, WA 98119-2029
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