



SoundEarth Strategies, Inc.
2811 Fairview Avenue East, Suite 2000
Seattle, Washington 98102

July 28, 2011

Mr. John D. Perine Jr.
Perine Property LLC
2995 Woodside Road, Suite 400
Woodside, California 94062

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SUBJECT: GROUNDWATER QUALITY EVALUATION
Perine Property
820 South Adams Street
Seattle, Washington
Project Number: 0783-001

Dear Mr. Perine:

SoundEarth Strategies, Inc. (SoundEarth) has prepared this Groundwater Quality Evaluation letter report to document the results of the field activities conducted at the property located 820 South Adams Street in Seattle, Washington (the Property). The groundwater quality evaluation conducted by SoundEarth, which also included limited soil sampling and testing to further characterize the nature and extent of soil contamination beneath the Property, was performed in accordance with SoundEarth's Scope of Work and Cost Estimate for Evaluating Indoor Air and Groundwater Quality, dated May 19, 2011; SoundEarth's Sampling Plan for Groundwater Quality Evaluation, dated June 9, 2011; and the Washington State Model Toxics Control Act (MTCA) Cleanup Regulation as established in Chapter 340 of Title 173 of the Washington Administrative Code.

The results from SoundEarth's Phase II subsurface investigation conducted at the Property in March 2011 confirmed the presence of chlorinated solvents in soil beneath the Property at concentrations that exceed MTCA cleanup levels (Table 1). The purpose of this groundwater quality evaluation was to assess groundwater quality beneath the Property due to the presence of chlorinated solvents in subsurface soil and confirm analytical results for reconnaissance groundwater samples collected during the Phase II subsurface investigation. This letter report includes a summary of the scope of work; a Property description; a summary of previous subsurface investigations; a brief summary of the geology and hydrogeology of the Property; a description of field activities for monitoring well installation and groundwater monitoring and sampling; presentation of the analytical results for soil and groundwater; and conclusions.

SCOPE OF WORK FOR GROUNDWATER QUALITY EVALUATION

Field activities were conducted on June 30 and July 1, 2011. Cascade Drilling, L.P. of Woodinville, Washington, performed the drilling and well installation activities using a limited-access, hollow-stem auger drill rig. A SoundEarth geologist observed the drilling and well installation activities. The proposed scope of work associated with the groundwater sampling event included the following:

- Preparing a health and safety plan in accordance with MTCA and Part 1910.120 of Title 29 of the Code of Federal Regulations prior to initiating field activities.
- Performing a utility locate at the proposed boring locations using Underground Detection Services of Seattle, Washington, as well as contacting the Northwest Utility Notification Center.
- Advancing three hollow-stem auger borings, completing the borings as monitoring wells MW05, MW06, and MW07, and submitting a single soil sample per boring for laboratory analysis. Monitoring well MW06 was not installed because the auger drill rig could not gain access to the proposed monitoring well location.
- Developing monitoring wells MW05 and MW07 and surveying the elevations of the top of casing to a temporary benchmark with an assumed elevation of 100.00 feet.
- Conducting a groundwater monitoring event at monitoring wells MW05 and MW07 and submitting groundwater samples for laboratory analysis.
- Preparing this Groundwater Quality Evaluation report.

PROPERTY DESCRIPTION

The Property is located on a trapezoid-shaped tax parcel that encompasses approximately 0.85 acres of land. The Property contains a 1957-vintage warehouse building and an addition that was constructed in 1996. According to the Phase I Environmental Site Assessment (Phase I) report for the Property, prepared by SoundEarth and dated January 27, 2011, the Property has been used as a winery, a beverage distribution company, a warehouse and machining shop, artist studios, and an emergency response refurbishing operation. In addition, several residences with suspected heating oil use and storage were historically located on the Property. A 1,000-gallon underground storage tank (UST) was reportedly installed at the Property in 1957. Upon inspection during the Phase I, the UST was discovered to be nearly filled with water and several inches of suspected weathered gasoline. The UST was not in operation and had not been decommissioned. The Phase I investigation did not reveal any evidence that chlorinated solvents have been used at the Property.

The Property is located at an approximate elevation of 20 to 25 feet above mean sea level. The closest surface water body is the Duwamish Waterway, which is located approximately 1.25 miles to the west of the Property. Development in the vicinity of the Property is a mix of government service, industrial, commercial, and major transportation infrastructure (Interstate 5).

PREVIOUS SUBSURFACE INVESTIGATIONS

The results of a Phase II subsurface investigation conducted at the Property by SoundEarth in March 2011 indicated that soil samples collected from borings P04 and P07, located beneath the north-central portion of the Property, contained concentrations of tetrachloroethene (PCE) and/or trichloroethene (TCE) that exceed the applicable MTCA Method A cleanup levels (Table 1). The concentrations of PCE and TCE detected in soil beneath the Property decrease with distance from Northwest Plating, a former electroplating facility that adjoins the Property on the north. The Northwest Plating parcel has been contaminated by releases of solvents and metals from a former plating facility that operated on that parcel. As such, the soil contamination encountered beneath the Property appears to be the result of impacts that have migrated from the north-adjointing property. Several borings were also advanced in the vicinity of the UST and other locations on the Property and no evidence of a release associated with

the UST or other historical uses of the Property was observed. A detailed discussion of the Phase II subsurface investigation, as well as the historical sampling results from prior investigations conducted at the adjoining Northwest Plating facility, are presented in the *Phase II Subsurface Investigation, Perine Property, 820 South Adams Street, Seattle, Washington*, prepared by SoundEarth and dated June 7, 2011.

Northwest Plating operated on the north-adjoining property from the 1950s through the 1990s. Records reviewed at the Washington State Department of Ecology indicate that chlorinated solvents and metals were detected at concentrations above the applicable MTCA Method A or B cleanup levels in groundwater collected from four monitoring wells located on or adjacent to the Northwest Plating parcel. Ecology documents indicate that the building's concrete floors were cracked, a possible source of direct contamination of soil. Additional potential sources of the contamination include two closed-in-place USTs located on the Northwest Plating parcel.

GEOLOGY AND HYDROGEOLOGY

The Property is located at the foot of a large glacially formed hill within the larger Duwamish River floodplain and estuary. General soil conditions at the Property consist of fill material composed of fine to medium sand with trace silt to silty sand from the near surface to depths of up to 16.5 feet below ground surface (bgs). Groundwater was encountered at the time of drilling at approximately 14 and 12 feet bgs in well borings MW05 and MW07, respectively, during drilling activities.

MONITORING WELL INSTALLATION

On June 30, 2011, monitoring well boring MW05 was advanced near the northwest corner of the tenant space at 820 South Adams, within the Property building (Figure 1). The boring was advanced in the vicinity of direct-push boring P04 advanced during the March 2011 Phase II subsurface investigation. Monitoring well boring MW07 was advanced outside the northeast corner of the Property building, at the top of a concrete ramp that leads to a loading bay for the building (Figure 1). Monitoring well boring MW06 was not advanced due to the well location inside the Property building being inaccessible to the limited-access, hollow-stem auger drill rig. SoundEarth had originally proposed to advance monitoring well boring MW06 adjacent to direct-push boring P07 advanced during the March 2011 Phase II subsurface investigation. Well borings MW05 and MW07 were sampled in 2.5 foot intervals to the maximum depths explored of approximately 16.5 and 15.5 feet bgs, respectively, using a Dames and Moore sampler advanced through the hollow-stem auger string. The samples were described in accordance with the Unified Soil Classification System (USCS) and were screened in the field for potential evidence of contamination 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. Headspace analysis was conducted by placing soil from each sample interval into a resealable plastic bag and allowing the sample to warm for several minutes. The probe of the PID was then inserted into the bag, and the highest reading obtained over an approximately 30-second interval was recorded for each sample. The USCS symbol, visual and olfactory notations for the samples, PID readings, blow counts, and sample recovery percentages were recorded on boring log forms, which are provided in Attachment A.

The monitoring wells were constructed of 2-inch-diameter, blank polyvinyl chloride (PVC) casing, flush-threaded to 10 feet of 0.010-inch slotted well screen. The bottom and top of each of the wells were fitted with a threaded PVC bottom cap and a locking compression-fit well cap. The annulus of the

monitoring wells was filled with #2/12 silica sand to a minimum height of 1 foot above the top of the screened interval. A bentonite seal having a minimum thickness of 2 feet was installed above the sand pack. The wells were completed at the surface with a flush-mounted, traffic-rated well box set in concrete.

Soil samples collected from the borings for monitoring wells MW05 and MW07 were transferred directly into laboratory-prepared sample containers. The sample containers were clearly labeled using a unique sample number and immediately placed in an iced cooler. The soil samples were collected in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A protocols and submitted to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington, under standard chain-of-custody protocol. A single soil sample per boring was analyzed at F&BI for PCE; TCE; cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); and vinyl chloride, by U.S. Environmental Protection Agency (EPA) Method 8260C.

The monitoring wells were developed with the use of a submersible pump. Monitoring well development consisted of surging and purging the wells until a minimum of five submerged well volumes were removed and the groundwater no longer appeared turbid. All non-dedicated field sampling equipment was cleaned and decontaminated between uses and prior to leaving the Property. Soil cuttings, purge water, and decontamination wash water were contained on the Property in labeled 55-gallon drums pending waste profiling and proper disposal. The monitoring well locations and elevations were surveyed by SoundEarth to determine the top of casing elevations to an accuracy of 0.01 feet, using an arbitrary elevation of 100 feet.

GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring and sampling was completed on July 1, 2011, at monitoring wells MW05 and MW07 at the Property. Monitoring wells MW05 and MW07 were opened, and water levels were permitted to equilibrate with atmospheric pressure for a minimum of 15 minutes before groundwater level measurements in the wells were obtained. Groundwater levels were measured to an accuracy of 0.01 feet using an electronic water level meter.

Groundwater samples were collected from monitoring wells MW05 and MW07 in accordance with the EPA's *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (April 1996). Purging and sampling of each monitoring well were performed using a peristaltic pump and dedicated polyethylene tubing at flow rates ranging from 100 to 200 milliliters per minute. The tubing intake was placed approximately 2 to 3 feet below the top of the water column in each monitoring well. During purging, water quality was monitored using a HORIBA U-22 water quality system equipped with a flow-through cell. The water quality parameters that were monitored and recorded included: temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each monitoring well was purged until the water quality parameters for pH, specific conductivity, and dissolved oxygen stabilized.

Following purging, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell and placed directly into laboratory-prepared sample containers. The containers were placed in an iced cooler and transported for laboratory analysis to F&BI under standard chain-of-custody protocols. The groundwater samples collected from monitoring wells MW05 and MW07 were submitted for analysis of PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride by EPA Method 8260C.

Purge water generated during the monitoring event was placed in a labeled steel drum and temporarily stored on the Property pending receipt of analytical data and proper disposal.

RESULTS

Analytical results for soil samples are presented on Figure 1 and in Table 1. Table 1 also contains analytical results for soil samples collected from boring P04 and P07 during the March 2011 Phase II subsurface investigation. Groundwater elevation data for the monitoring wells is provided in Table 2. Analytical results for groundwater samples are presented on Figure 2 and in Table 3. Table 3 also contains analytical results for reconnaissance groundwater samples collected from boring P04 and P07 during the March 2011 Phase II subsurface investigation. The laboratory analytical reports are provided as Attachment B.

Soil

Soil encountered in boring MW05 consisted of sand to silty sand to approximately 9 feet bgs, underlain by sand to approximately 14 feet bgs, with a silty sand layer at 16 feet bgs. Soil encountered in boring MW07 consisted primarily of sand with silt to approximately 7 feet bgs underlain by fine to medium sand to the maximum depth explored of approximately 15.5 feet bgs. Solvent odor was not encountered in soil samples collected from either boring. The soil samples collected from a depth of 8 feet bgs in boring MW05 and from a depth of 13 feet in boring MW07 were submitted to the laboratory for analysis. A summary of the analytical results of the soil samples is provided below:

- The soil sample collected from boring MW05 contained 0.15 milligrams per kilogram (mg/kg) of PCE and 4.0 mg/kg of TCE; these concentrations exceed their respective MTCA Method A cleanup levels of 0.05 mg/kg and 0.03 mg/kg. Concentrations of cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride were not detected above the laboratory reporting limit in the soil sample collected from boring MW05.
- Concentrations of PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride were not detected above the laboratory reporting limit in the soil sample analyzed from boring MW07.

Groundwater

Groundwater water levels were measured on July 1, 2011, in monitoring wells MW05 and MW07. Groundwater levels were reported at 12.65 feet (monitoring well MW05) and 11.37 feet (monitoring well MW07) below the top of the well casings. The top of casing elevation, depth to groundwater, and groundwater elevation data collected from the monitoring wells are summarized on Table 2.

The direction of groundwater flow at the Property could not be determined because monitoring well MW06 was not installed; a minimum of three groundwater elevations are needed to calculate the direction of groundwater flow. However, the elevation of groundwater in monitoring well MW07 was 0.53 higher than the groundwater elevation in monitoring well MW05, which is consistent with the northwesterly groundwater flow direction that was calculated from groundwater elevations measured in March 1989 at monitoring wells installed at the north-adjacent former Northwest Plating.

A summary of the analytical results for the groundwater samples collected from monitoring wells MW05 and MW07 is provided below:

- TCE was detected in the groundwater sample collected from monitoring well MW05 at a concentration of 81 micrograms per liter ($\mu\text{g/l}$), which exceeds the MTCA Method A cleanup level of 5 $\mu\text{g/l}$. PCE was detected in the groundwater sample collected from monitoring well MW05 at a concentration of 1.1 $\mu\text{g/l}$, which is below the MTCA Method A cleanup level of 5 $\mu\text{g/l}$. Concentrations of cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride were below their respective laboratory reporting limits in the groundwater sample collected from monitoring well MW05.
- Concentrations of PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride were not detected above the laboratory reporting limit in the groundwater sample analyzed from monitoring well MW07.

CONCLUSIONS

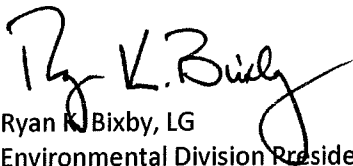
The results the groundwater sampling conducted by SoundEarth in the course of this investigation confirm that concentrations of TCE in excess of the MTCA Method A cleanup level are present in groundwater beneath the Property in the vicinity of monitoring well MW05. Soil collected from boring MW05 was also found to contain concentrations of PCE and TCE that exceed their respective MTCA Method A cleanup levels. Based upon the collective findings of the January 2011 Phase I environmental site assessment, the Phase II subsurface investigation conducted at the Property in March 2011, and the results of the soil and groundwater sampling and testing performed as part of the current investigation, it is evident that the impacts encountered beneath the Property are associated with a release at the Northwest Plating facility, which formerly operated on the north-adjointing property.

Respectfully,

SoundEarth Strategies, Inc.



Thomas Cammarata, LG, LHG
Senior Geochemist

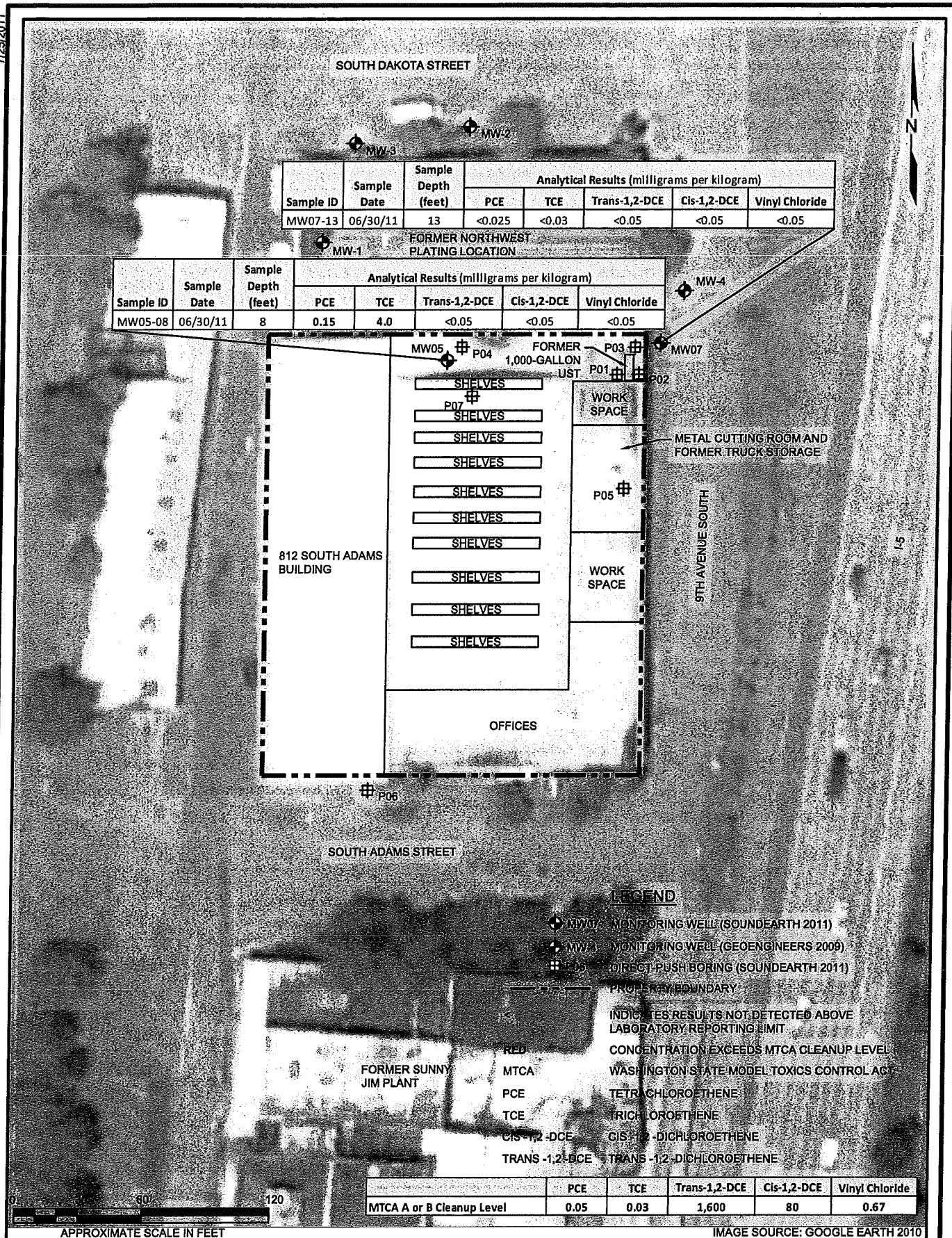


Ryan K. Bixby, LG
Environmental Division President

Attachments: Figure 1, Soil Analytical Results
Figure 2, Groundwater Analytical Results
Table 1, Summary of Soil Analytical Results, Chlorinated Volatile Organic Compounds
Table 2, Summary of Groundwater Elevations
Table 3, Summary of Groundwater Analytical Results, Chlorinated Volatile Organic
Compounds
Attachment A, Boring Logs
Attachment B, Laboratory Analytical Report
Friedman & Bruya, Inc. #107013

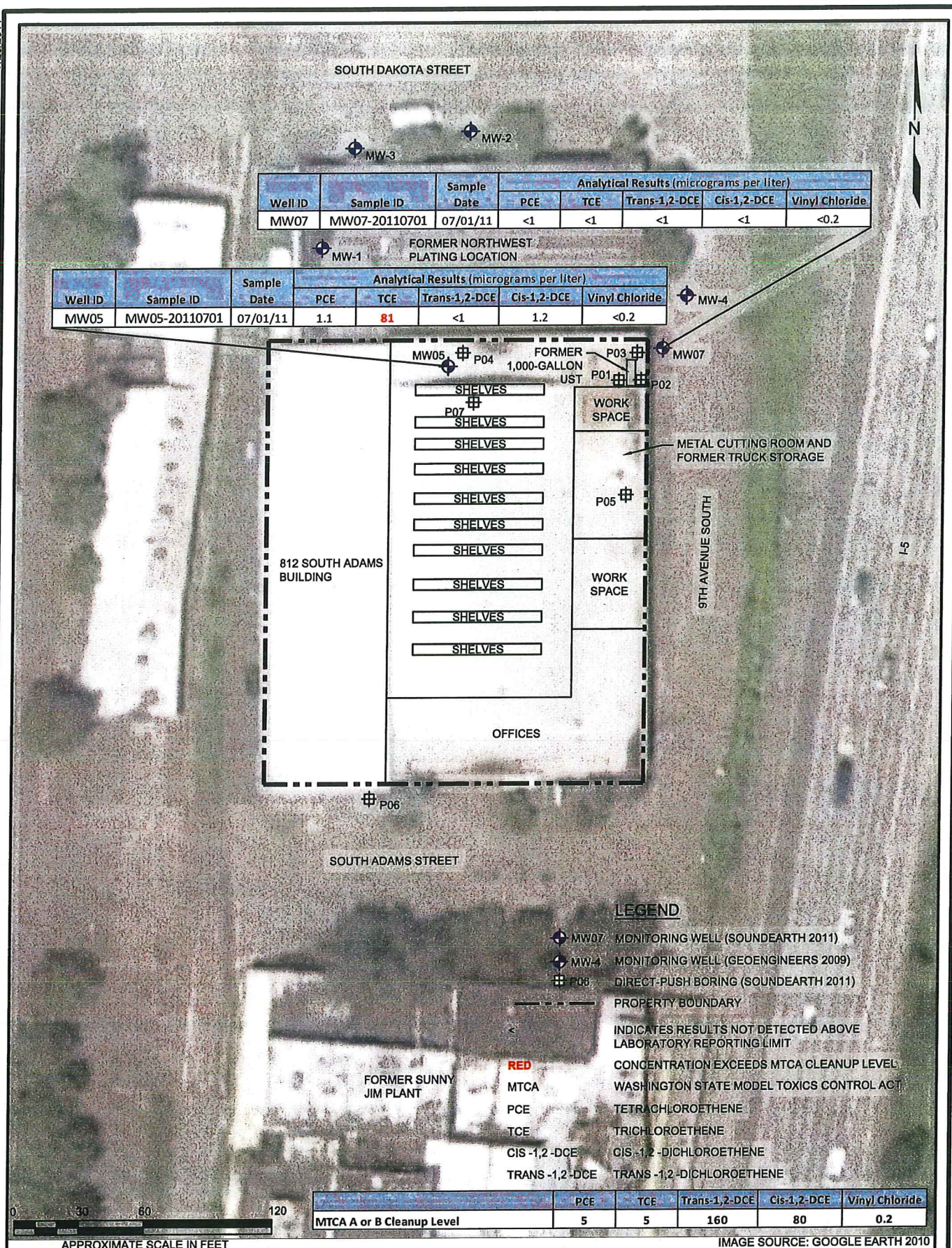
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FIGURES



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TABLES



Table 1
Summary of Soil Analytical Results
Chlorinated Volatile Organic Compounds
Perine Property
820 South Adams Street
Seattle, Washington

Sample ID	Sample Date	Sample Depth (feet)	Analytical Results ¹ (milligrams per kilogram)				
			Tetrachloroethene	Trichloroethene	trans-1,2- Dichloroethene	cis-1,2- Dichloroethene	Vinyl Chloride
P04-08	03/17/11	8	0.34	9.1	<0.05	0.067	<0.05
P05-03	03/17/11	3	<0.025	<0.03	<0.05	<0.05	<0.05
P07-09	03/17/11	9	<0.025	0.10	<0.05	<0.05	<0.05
MW05-08	06/30/11	8	0.15	4.0	<0.05	<0.05	<0.05
MW07-13	06/30/11	13	<0.025	<0.03	<0.05	<0.05	<0.05
MTCA Cleanup Level			0.05 ^a	0.03 ^a	1,600 ^b	80 ^b	0.67 ^b

NOTES:

Red denotes concentration exceeds MTCA cleanup level for soil.

Samples analyzed by Friedman & Bruya, Inc. of Seattle, Washington.

¹Analyzed by EPA Method 8260C.

^aMTCA Method A Soil Cleanup Level, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

^bMTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Carcinogen and Non-Carcinogen, Standard Formula Value, CLARC Website
 <<https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>>.

< = not detected at concentrations exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculations

EPA = U.S. Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

NE = not established



Table 2
Summary of Groundwater Elevations
Perine Property
820 South Adams Street
Seattle, Washington

Well ID	Top of Casing Elevation (feet) ¹	Date	Depth to Groundwater ² (feet)	Groundwater Elevation (feet)
MW05	101.08	07/01/11	12.65	88.43
MW07	100.33	07/01/11	11.37	88.96

NOTES:

¹Measured relative to an arbitrary elevation of 100 feet.

²As measured from a fixed spot on the well casing rim.



Table 3
Summary of Groundwater Analytical Results
Chlorinated Volatile Organic Compounds
Perine Property
820 South Adams Street
Seattle, Washington

Well ID	Sample ID	Sample Date	Analytical Results ¹ (micrograms per liter)				
			Tetrachloroethene	Trichloroethene	trans-1,2- Dichloroethene	cis-1,2- Dichloroethene	Vinyl Chloride
P04	20110317-P04	03/17/11	<1	<1	<1	<1	<0.2
P07	20110317-P07	03/17/11	<1	<1	<1	<1	<0.2
MW05	MW05-20110701	07/01/11	1.1	81	<1	1.2	<0.2
MW07	MW07-20110701	07/01/11	<1	<1	<1	<1	<0.2
MTCA Cleanup Level			5 ^a	5 ^a	160 ^b	80 ^b	0.2 ^a

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

Samples analyzed by Friedman & Bruya, Inc. of Seattle, Washington.

¹Analyzed by EPA Method 8260C.

^aMTCA Method A Groundwater Cleanup Level, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

^bMTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Groundwater, Method B, Carcinogen and Non-Carcinogen, Standard Formula Value, CLARC Website
 <<https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>>.

< = not detected at concentrations exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculations

EPA = U.S. Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

**ATTACHMENT A
BORING LOGS**



Project: Perine Property
Project Number: 0783-001
Logged by: DMM
Date Started: 6/30/2011
Surface Conditions: Concrete
Well Location N/S: 12.65
Well Location E/W:
Reviewed by: JAC
Date Completed: 6/30/2011

BORING LOG MW05

Site Address: 820 South Adams Street
 Seattle, Washington

Water Depth At Time of Drilling: 14 feet bgs
Water Depth After Completion: 12.65 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						Concrete		Concrete (6 inches).	
								Cuttings: Damp, silty SAND with gravel, brown, no solvent odor (FILL).	
5	21/14/13		100	21.2	MW05-06	SP		Damp, medium dense, fine to medium SAND, trace silt, light brown, no solvent odor (FILL) (5-95-0).	
						SM		Damp to moist, medium dense, silty fine SAND, brown to dark brown, no solvent odor (15-85-0).	
	8/12/18		66	33	MW05-08	SP		Damp, medium dense, fine to medium SAND, trace silt, tan, no solvent odor (FILL).	
						SM		Damp, medium dense, silty fine SAND, dark brown, no solvent odor (FILL).	
10									

Drilling Co./Driller: Cascade/JJ
Drilling Equipment: HSA LAR
Sampler Type: DSM
Hammer Type/Weight: 140 lbs
Total Boring Depth: 16.5 feet bgs
Total Well Depth: 15 feet bgs
State Well ID No.: BHA 087

Well/Auger Diameter: 2/6 inches
Well Screened Interval: 5-15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2-12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:



Project: Perine Property
Project Number: 0783-001
Logged by: DMM
Date Started: 6/30/2011
Surface Conditions: Concrete
Well Location N/S: 12.65
Well Location E/W:
Reviewed by: JAC
Date Completed: 6/30/2011

BORING LOG

MW05

Site Address: 820 South Adams Street
 Seattle, Washington



Water Depth At Time of Drilling: 14 feet bgs

Water Depth After Completion: 12.65 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
10	12/18/25		66	6.9	MW05-11	SP		Moist, medium dense, fine to coarse SAND, trace silt, tan to dark brown/black, no solvent odor (FILL) (5-95-0).	
	21/30/22		100	2.7	MW05-13.5	SP		Moist to wet (lower 2 inches), medium dense, fine to medium SAND, trace silt, brown and black, no solvent odor (FILL) (5-95-0).	
15	16/18/10		85	2.0	MW05-16	SP		Wet, medium dense, fine to medium SAND, trace silt, dark brown/black, no solvent odor (FILL) (5-95-0).	
						SM		Moist to wet, medium dense, silty fine SAND, some fine angular gravel, gray, no solvent odor (FILL) (30-60-10).	
20								Boring terminated at 16.5 feet bgs and completed as 2-inch-diameter monitoring well MW05, screened from 5 to 15 feet bgs, backfilled with 2/12 sand from 16.5 to 4 feet bgs, bentonite chips from 4 to 2 feet bgs, and cement from 2 feet bgs to surface grade. Completed at surface grade with a flush-mount monument.	

Drilling Co./Driller: Cascade/JJ
Drilling Equipment: HSA LAR
Sampler Type: DSM
Hammer Type/Weight: 140 lbs
Total Boring Depth: 16.5 feet bgs
Total Well Depth: 15 feet bgs
State Well ID No.: BHA 087

Well/Auger Diameter: 2/6 inches
Well Screened Interval: 5-15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2-12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:



Project: Perine Property
Project Number: 0783-001
Logged by: DMM
Date Started: 6/30/2011
Surface Conditions: Asphalt
Well Location N/S:
Well Location E/W:
Reviewed by: JAC
Date Completed: 6/30/2011

BORING LOG MW07

Site Address: 820 South Adams Street
 Seattle, Washington



Water Depth At Time of Drilling: 12 feet bgs
Water Depth After Completion: 11.42 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						Asphalt		Asphalt (2 inches). Cuttings: Damp, SAND with silt and gravel, dark brown, some red brick, no solvent odor (FILL).	
5	8/4/2		80	1.8	MW07-06.5	SM		Damp, very loose, silty fine SAND with asphalt in middle of sample, tan, no solvent odor (FILL) (20-75-5).	
10	16/16/22		100	2.1	MW07-08	SP		Damp, medium dense, fine to medium SAND, trace silt, black, no solvent odor (FILL) (5-95-0).	

Drilling Co./Driller: Cascade/JJ
Drilling Equipment: HSA LAR
Sampler Type: DSM
Hammer Type/Weight: 140 lbs
Total Boring Depth: 15.5 feet bgs
Total Well Depth: 14.5 feet bgs
State Well ID No.: BHA 087

Well/Auger Diameter: 2/6 inches
Well Screened Interval: 4.5-14.5 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2-12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:



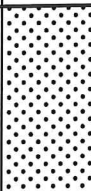
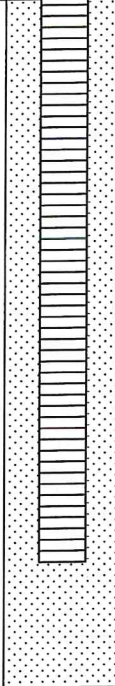
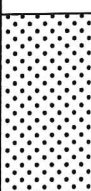

Project: Perine Property
Project Number: 0783-001
Logged by: DMM
Date Started: 6/30/2011
Surface Conditions: Asphalt
Well Location N/S:
Well Location E/W:
Reviewed by: JAC
Date Completed: 6/30/2011

BORING LOG

MW07

Site Address: 820 South Adams Street
 Seattle, Washington

 Water Depth At Time of Drilling: 12 feet bgs
 Water Depth After Completion: 11.42 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
10	19/16/12		75	0.5	MW07-11	SP		Same as above (FILL) (5-95-0).	
	12 50/6		100	0.5	MW07-13	SP		Same as above, wet (FILL) (5-95-0).	
15	50/6	300		0.0	MW07-15	SP		Same as above, trace angular gravel (FILL) (5-90-5).	
20								Boring terminated at 15.5 feet bgs and completed as 2-inch-diameter monitoring well MW07, screened from 14.5 to 4.5 feet bgs, backfilled with 2/12 sand from 15.5 to 3.5 feet bgs, bentonite chips from 3.5 to 1.5 feet bgs, and cement from 1.5 to 0.5 feet bgs. Completed at surface grade with a flush-mount monument.	

Drilling Co./Driller: Cascade/JJ
Drilling Equipment: HSA LAR
Sampler Type: DSM
Hammer Type/Weight: 140 lbs
Total Boring Depth: 15.5 feet bgs
Total Well Depth: 14.5 feet bgs
State Well ID No.: BHA 087

Well/Auger Diameter: 2/6 inches
Well Screened Interval: 4.5-14.5 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2-12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

ATTACHMENT B
LABORATORY ANALYTICAL REPORT

Friedman & Bruya, Inc. #107013

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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July 13, 2011

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Cammarata:

Included are the results from the testing of material submitted on July 1, 2011 from the SOU_0783_20110701, F&BI 107013 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
SOU0713R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 1, 2011 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0783_20110701, F&BI 107013 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
107013-01	MW07-06.5
107013-02	MW07-08
107013-03	MW07-11
107013-04	MW07-13
107013-05	MW07-15
107013-06	MW05-06
107013-07	MW05-08
107013-08	MW05-11
107013-09	MW05-13.5
107013-10	MW05-16
107013-11	Composite-20110630
107013-12	MW07-20110701
107013-13	MW05-20110701

All quality control requirements were acceptable.

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW07-13	Client:	SoundEarth Strategies
Date Received:	07/01/11	Project:	SOU_0783_20110701, F&BI 107013
Date Extracted:	07/05/11	Lab ID:	107013-04
Date Analyzed:	07/06/11	Data File:	070604.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	142
Toluene-d8	105	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
trans-1,2-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW05-08	Client:	SoundEarth Strategies
Date Received:	07/01/11	Project:	SOU_0783_20110701, F&BI 107013
Date Extracted:	07/05/11	Lab ID:	107013-07
Date Analyzed:	07/06/11	Data File:	070605.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	103	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
trans-1,2-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	4.0
Tetrachloroethene	0.15

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0783_20110701, F&BI 107013
Date Extracted:	07/05/11	Lab ID:	01-1186 mb
Date Analyzed:	07/05/11	Data File:	070520.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
trans-1,2-Dichloroethene	<0.05
cis-1,2-Dichloroethene	<0.05
Trichloroethene	<0.03
Tetrachloroethene	<0.025

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW07-20110701	Client:	SoundEarth Strategies
Date Received:	07/01/11	Project:	SOU_0783_20110701, F&BI 107013
Date Extracted:	07/08/11	Lab ID:	107013-12
Date Analyzed:	07/08/11	Data File:	070808.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	63	127
Toluene-d8	99	65	127
4-Bromofluorobenzene	101	40	157

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW05-20110701	Client:	SoundEarth Strategies
Date Received:	07/01/11	Project:	SOU_0783_20110701, F&BI 107013
Date Extracted:	07/08/11	Lab ID:	107013-13
Date Analyzed:	07/08/11	Data File:	070809.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	63	127
Toluene-d8	101	65	127
4-Bromofluorobenzene	103	40	157

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	1.2
Trichloroethene	81
Tetrachloroethene	1.1

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0783_20110701, F&BI 107013
Date Extracted:	07/08/11	Lab ID:	01-1189 mb
Date Analyzed:	07/08/11	Data File:	070805.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	63	127
Toluene-d8	99	65	127
4-Bromofluorobenzene	107	40	157

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

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ENVIRONMENTAL CHEMISTS

Date of Report: 07/13/11

Date Received: 07/01/11

Project: SOU_0783_20110701, F&BI 107013

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

Laboratory Code: 107017-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	52	10-138
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	73	14-137
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	80	25-135
Trichloroethene	mg/kg (ppm)	2.5	<0.03	80	21-139
Tetrachloroethene	mg/kg (ppm)	2.5	0.064	83	20-133

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	78	77	22-139	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	90	88	67-127	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	91	72-113	0
Trichloroethene	mg/kg (ppm)	2.5	95	90	68-114	5
Tetrachloroethene	mg/kg (ppm)	2.5	91	86	72-114	6

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ENVIRONMENTAL CHEMISTS

Date of Report: 07/13/11

Date Received: 07/01/11

Project: SOU_0783_20110701, F&BI 107013

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	94	101	53-131	7
trans-1,2-Dichloroethene	ug/L (ppb)	50	97	103	71-128	6
cis-1,2-Dichloroethene	ug/L (ppb)	50	104	109	74-126	5
Trichloroethene	ug/L (ppb)	50	105	106	74-119	1
Tetrachloroethene	ug/L (ppb)	50	106	105	83-113	1

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ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

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

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

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

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

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

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

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

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

fb - Analyte present in the blank and the sample.

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

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

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

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

j - The result is below normal reporting limits. The value reported is an estimate.

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

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

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

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

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

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

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

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

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

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

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

NP 107013
 7-1-11
 Send Report To T. Caminata
 Company SandEarth Strategies
 Address 8511 Fairview Ave E Suite 200
 City, State, ZIP Seattle, WA 98103
 Phone # 206.366.1400 Fax # 206.366.1407

SAMPLE CHAIN OF CUSTODY

ME 07-01-11
 Page # 1 of 1
 TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH
 Rush charges authorized by:

SAMPLERS (signature) <i>[Signature]</i>		PO #
PROJECT NAME/NO. Pecine / C783		GEMS Y / N
REMARKS		

ANALYSES REQUESTED										Notes
Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	
MW07-06.5	MW07	6.5	01A	06/30/11	1035	Soil	4			HGLD
MW07-08		8	02		1045					HGLD
MW07-11		11	03		1050					HGLD
MW07-13		13	04		1055					HGLD
MW07-15		15	05		1100					HGLD
MW05-06	MW05	6	06		1330					HGLD
MW05-08		8	07		1330					HGLD
MW05-11		11	08		1335					HGLD
MW05-13.5		13.5	09		1355					HGLD
MW05-16		16	10		1400					HGLD
Composite - All 06.5	Composite		11	07/30/11	1630	Soil	1			HGLD

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119 Ph (206) 285-8282 Fax (206) 283-5044		SIGNATURE		PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>[Signature]</i>		David Mendel		SES		7/1/11	1335
Received by: <i>[Signature]</i>		Khan Pham		Fe BI		7/1/11	1335
Relinquished by:							
Received by:							

Samples received at 5 °C

