

## **APPENDIX A**

### **RI Photographs**

**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Upland portion of Property west of warehouse, at monitoring well MW-1 location.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Top of bank showing steel retaining wall and pilings.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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View of Property from Slip 1, showing retaining wall, supporting pilings, and warehouse.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Shoreline and retaining wall with supporting pilings.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Shoreline and bank beneath remaining dock structure.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Retaining wall section consisting of a segment of steel ship hull.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Accumulation of spent SBG on shoreline, sample SSA-3 location



## **Appendix A - RI Photographs**

**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

Spent SBG, containing flecks of red and white paint.



**Appendix A - RI Photographs**  
**Snopac Property Upland Source Control Remedial Investigation and Feasibility Study**

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Seep sample collection assembly, Seep 76/ASP-3 seep sample location.



## **APPENDIX B**

### **Hydraulic Conductivity Estimates from Tidal Study Data**

## B. Hydraulic Conductivity Estimates from Tidal Study Data

Aspect conducted three tidal studies at the Property in January and February 2017 to evaluate the tidal influence on groundwater flow across the Property. During the studies, a total of nine monitoring wells were instrumented with transducers and programmed to record pressure, temperature, and specific conductivity. Data was collected from four monitoring wells (MW-1 through MW-4) over a 24-hour period, four monitoring wells (MW-7 through MW-9 and MW-12) over a 72-hour period, and two monitoring wells (MW-2 and MW-6) over a 20-day period. Figures B-1 through B-10 illustrate the tidal fluctuations in the Lower Duwamish Waterway (measured at NOAA tide station 9447130, Colman Dock Seattle, Washington) and corresponding upland groundwater levels for the respective wells and monitoring periods.

Figures B-1 through B-10 also illustrate groundwater temperature and specific conductivity throughout the tidal cycles at each well. In addition, Figure B-11 shows daily precipitation overlain on groundwater levels at wells MW-2 and MW-6 during the 20-day tidal study in February 2017. Figure B-12 shows daily precipitation overlain on groundwater specific conductivity and temperature measured at wells MW-2 and MW-6 during that 20-day tidal study. Groundwater temperature and specific conductivity are discussed in Section 2.4.4 of this report.

The hydraulic conductivity ( $K$ ) of the Fill Unit was estimated from the tidal study data using the stage ratio and time lag methods of Ferris (1963). The Ferris (1963) methods are intended to provide a  $K$  estimate representing the entire unit between the monitoring well and the tide (point of discharge). Based on previous experience (Aspect, 2013), the  $K$  estimates calculated by the Ferris (1963) method tend to yield an estimated  $K$  value that is higher than other methods.

The stage ratio method uses the tidal efficiency<sup>1</sup> measured at a well and the distance between the well and the tide (point of discharge) as key input data. The time lag method uses the tidal lag<sup>2</sup> measured at a well and the distance between the well and the tide as key input data. In each calculation, the tidal period for the semidiurnal Puget Sound tides is 12.4 hours. The elevation of the Fill Unit bottom is somewhat variable and the unit's saturated thickness was estimated based on the average measured water level elevation minus the elevation of the bottom of fill. The storage coefficient (specific yield for unconfined aquifer) for the variable-composition Fill Unit was estimated as 0.1 based on the following literature estimates and best professional judgement:

- U.S. Geological Survey (USGS) estimates for various facies of unconsolidated alluvium: 0.04 for silt; 0.16 for very fine sand; 0.23 for fine sand (USGS, 1966)

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<sup>1</sup> Ratio of groundwater level change to corresponding tide level change (in %).

<sup>2</sup> Time between a tidal peak and the corresponding peak in groundwater level.

- A model-calibrated value (0.02) for dredge fill at the Port of Seattle's Terminal 30 (S.S. Papadopoulos and Associates, 2006)
- A USGS estimate (0.13) for an alluvial aquifer in California (USGS, 2003).

Tidal study data from monitoring wells MW-2, MW-3, MW-4, and MW-7 showed clear tidal responses and were thus used to estimate K of the Fill Unit near the shoreline. For well MW-2, data from the 20-day test, not the 24-hour test, were used in this analysis.

The tidal study water level data demonstrate that the groundwater levels in four nearshore Fill Unit wells increase more rapidly with rising tides than they decrease with falling tides. This is attributed to the fact that, at lower low tidal stages, the tide is below the bottom of the Fill Unit (top of Estuarine Unit aquitard). When this occurs, the Fill Unit water table remains essentially perched on the Estuarine Unit aquitard several feet above the tidal stage. Because the water table is unable to follow the full tidal decline, the outbound hydraulic gradient, and thus the rate of groundwater discharge from the Fill Unit to the LDW, is effectively reduced. This is illustrated by the flattening of the groundwater elevations during lower low tidal stages (see Figures B-2, B-3, B-4, and B-5 respectively). It is also reflected in much longer tidal lags at low tides than at high tides.

Consequently, only the tidal lags measured at high tides were applied for the K estimates using the time lag method. The tidal efficiency measurements from low and high tides were much more comparable, and therefore all were applied for the K estimates using the stage ratio method. Table B-1 presents the tidal efficiency and tidal lag estimates for the four wells, with values in bold font applied for the K estimates.

Table B-2 presents the input data and the resulting K estimates for the four wells. The average (geometric mean) of the K estimates from the two methods represents a best-estimate K value for each well.

The estimated K ranges from  $3 \times 10^{-2}$  centimeters per second (cm/sec) at MW-7 to  $1 \times 10^{-1}$  cm/sec at MW-3, with a Property-wide geometric mean K of  $6 \times 10^{-2}$  cm/sec (Table B-2).

## References for Appendix B

Aspect Consulting, LLC (Aspect), 2013, Remedial Investigation, Georgia-Pacific West Site, Bellingham, Washington, Final, August 5, 2013.

Ferris, J.G., 1963, Cyclic Water Level Fluctuations as a Basis for Determining Aquifer Transmissibility, in Methods of Determining Permeability, Transmissivity, and Drawdown, USGS Water Supply Paper 1536 I, pp. 305-318.

S.S. Papadopoulos and Associates, 2006, Evaluation of Tidal Mixing and Dispersion, Appendix H to Supplemental Data Report, Revision 1, Terminal 30, prepared by The RETEC Group, January 30.

U.S. Geological Survey (USGS), 1966, Compilation of Specific Yield for Various Materials, USGS Open-File Report 63-59.

U.S. Geological Survey (USGS), 2003, Determination of Specific Yield and Water-Table Changes Using Temporal Microgravity Surveys Collected During the Second Injection, Storage, and Recovery Test at Lancaster, Antelope Valley, California, November 1996 through April 1997, USGS Water-Resources Investigation Report 03-4019.

## Attachments

- Table B-1 Well-Specific Tidal Efficiency and Tidal Lag Estimates for Fill Unit Wells
- Table B-2 Hydraulic Conductivity Estimates for Fill Unit Derived from Tidal Study Data
- Figure B-1 MW-1 24-hour Tidal Monitoring
- Figure B-2 MW-2 24-hour Tidal Monitoring
- Figure B-3 MW-2 20-Day Tidal Monitoring
- Figure B-4 MW-3 24-hour Tidal Monitoring
- Figure B-5 MW-4 24-hour Tidal Monitoring
- Figure B-6 MW-6 20-Day Tidal Monitoring
- Figure B-7 MW-7 72-Hour Tidal Monitoring
- Figure B-8 MW-8 72-Hour Tidal Monitoring
- Figure B-9 MW-9 72-Hour Tidal Monitoring
- Figure B-10 MW-12 72-Hour Tidal Monitoring
- Figure B-11 Groundwater Levels with Precipitation (Feb 2017)
- Figure B-12 Groundwater Temp. and Conductivity with Precip. (Feb 2017)

# **TABLES**

**Table B-1. Well-Specific Tidal Efficiency and Tidal Lag Estimates for Fill Unit Wells**

Project No. 150054, Seattle, Washington

Low/ High Tide Peak	Peak tide time	Tide elevation	Correspond. GW peak time	Correspond. GW elevation	Tidal Lag (hours)	Tidal Efficiency (%)	Notes
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**MW-2 (20-day tide study<sup>a</sup>)**

H1	2/9/17 4:24	10.67	2/9/2017 4:35	10.45	0.18	N/A	
L2	2/11/17 23:12	-3.45	2/11/2017 23:40	6.32	0.47	29%	
H2	2/12/17 6:06	9.81	2/12/2017 6:10	9.57	0.07	24%	
L3	2/15/17 1:18	0.06	2/15/2017 1:55	6.34	0.62	33%	
H3	2/15/17 7:54	10.44	2/15/2017 8:00	10.20	0.10	37%	
L4	2/18/17 3:42	4.62	2/18/2017 4:15	6.45	0.55	64% (b)	
H4	2/18/17 9:42	9.09	2/18/2017 9:50	8.92	0.13	55%	
L5	2/20/17 18:48	0.12	2/20/2017 19:05	6.37	0.28	28%	
H5	2/21/17 2:24	8.36	2/21/2017 2:25	8.15	0.02	22%	
L6	2/23/17 20:54	-2.12	2/23/2017 21:20	6.32	0.43	17% (b)	
H6	2/24/17 4:12	9.31	2/24/2017 4:15	9.03	0.05	24%	
L7	2/26/17 23:06	-1.93	2/26/2017 23:40	6.34	0.57	24%	
H7	2/27/17 5:42	9.99	2/27/2017 5:50	9.69	0.13	28%	

**average tidal lag from higher high tide peaks<sup>c</sup>****0.1 hours****average tidal lag from lower low tide peaks<sup>c</sup>****0.49 hours****average tidal efficiency based on higher high tide peaks:****32%****average tidal efficiency based on lower low tide peaks:****33%****average tidal efficiency based on all peaks<sup>d</sup>****32%****MW-3 (24-hr tide study<sup>e</sup>)**

L1	1/23/17 20:18	-1.20	1/23/17 22:55	4.03	2.62	N/A	
H1	1/24/17 3:36	8.93	1/24/17 3:45	10.35	0.15	62%	
L2	1/24/17 9:06	5.76	1/24/17 9:55	7.67	0.82	85%	
H2	1/24/17 14:00	8.22	1/24/17 14:20	9.63	0.33	80%	

**average tidal lag from high tide peaks<sup>c</sup>****0.2 hours****average tidal lag from low tide peaks<sup>c</sup>****1.7 hours****average tidal efficiency based on all peaks<sup>d</sup>****73%****MW-4 (24-hr tide study<sup>e</sup>)**

L1	1/23/17 20:18	-1.20	1/23/17 22:55	6.16	2.6	N/A	
H1	1/24/17 3:36	8.93	1/24/17 5:00	8.62	1.4	24%	
L2	1/24/17 9:06	5.76	1/24/17 10:45	6.57	1.6	65%	
H2	1/24/17 14:00	8.22	1/24/17 15:00	8.00	1.0	58%	

**average tidal lag from high tide peaks<sup>c</sup>****1.2 hours****average tidal lag from low tide peaks<sup>c</sup>****2.1 hours****average tidal efficiency based on all peaks<sup>d</sup>****44%**

**Table B-1. Well-Specific Tidal Efficiency and Tidal Lag Estimates for Fill Unit Wells**

Project No. 150054, Seattle, Washington

Low/ High Tide Peak	Peak tide time	Tide elevation	Correspond. GW peak time	Correspond. GW elevation	Tidal Lag (hours)	Tidal Efficiency (%)	Notes
<b>MW-7 (72-hr tidal study)<sup>f</sup></b>							
L1	1/27/17 22:42	-3.88	1/28/17 5:13	8.04	6.5	N/A	
H1	1/28/17 5:48	9.14	1/28/17 8:29	8.15	2.7	0.9%	
L2	1/28/17 23:24	-3.67	1/29/17 5:19	8.01	5.9	1.1%	
H2	1/29/17 6:36	9.44	1/29/17 8:52	8.22	2.3	1.6%	
L3	1/30/17 0:00	-3.51	1/30/17 6:17	8.00	6.3	1.7%	
H3	1/30/17 6:54	9.55	1/30/17 8:41	8.22	1.8	1.7% (g)	
<b>average tidal lag from high tide peaks<sup>c</sup></b>				<b>2.5 hours</b>			
<b>average tidal lag from low tide peaks<sup>c</sup></b>				<b>6.3 hours</b>			
<b>average tidal efficiency based on all peaks<sup>d</sup></b>				<b>1.3%</b>			

**Notes:**

- (a) Because there are 20 days of data for well MW-2, peaks were selected on every third day (seven total) for analysis, which covers a broad range of tidal cycles.
- (b) Groundwater level pick is uncertain - levels generally flat around near the tidal minima.
- (c) Tidal lag (TL) estimates are considered valid only from the high tide data, and the much longer TL measurements from low tides are not used (refer to text).
- (d) The average tidal efficiency (TE) estimates are similar for low and high tide peaks, thus use average of all as best estimate TE.
- (e) Intermediate high and low tide peaks used for analysis given short monitoring duration.
- (f) Only higher high and lower low tide peaks used for analysis given longer monitoring period.
- (g) Exclude these TE and TL values from analysis. It appears the groundwater level had not yet peaked when test terminated, consistent with shorter apparent TL.

## Table B-2. Hydraulic Conductivity Estimates for Fill Unit Derived from Tidal Study Data

Project No. 150054, Seattle, Washington

### Tidal Lag Time and Efficiency Estimates (see Table B-1)

Parameter	MW-2	MW-3	MW-4	MW-7
Approx Distance from Tidal Interface in Feet	10	10	20	55
Tidal Efficiency (Average)	32%	73%	44%	1%
Tidal Lag Time in Hours (Average)	0.1	0.2	1.2	2.5

### Horizontal Hydraulic Conductivity (K) Estimates Using Stage Ratio (Tidal Efficiency) Method (Ferris, 1963)

Parameter	MW-2	MW-3	MW-4	MW-7
Approx Distance from Tidal Interface in Feet	10	10	20	55
Storage Coefficient (Specific Yield)	0.10	0.10	0.10	0.10
Tidal Period in Hours	12.4	12.4	12.4	12.4
Tidal Period in Days	0.52	0.52	0.52	0.52
Tidal Efficiency	32%	73%	44%	1%
Avg Aquifer Thickness in Feet	4.5	4.5	4.5	4.5
T in ft <sup>2</sup> /day	50	640	370	100
K in cm/sec	4E-03	5E-02	3E-02	8E-03

### Horizontal Hydraulic Conductivity (K) Estimates Using Time Lag Method (Ferris, 1963)

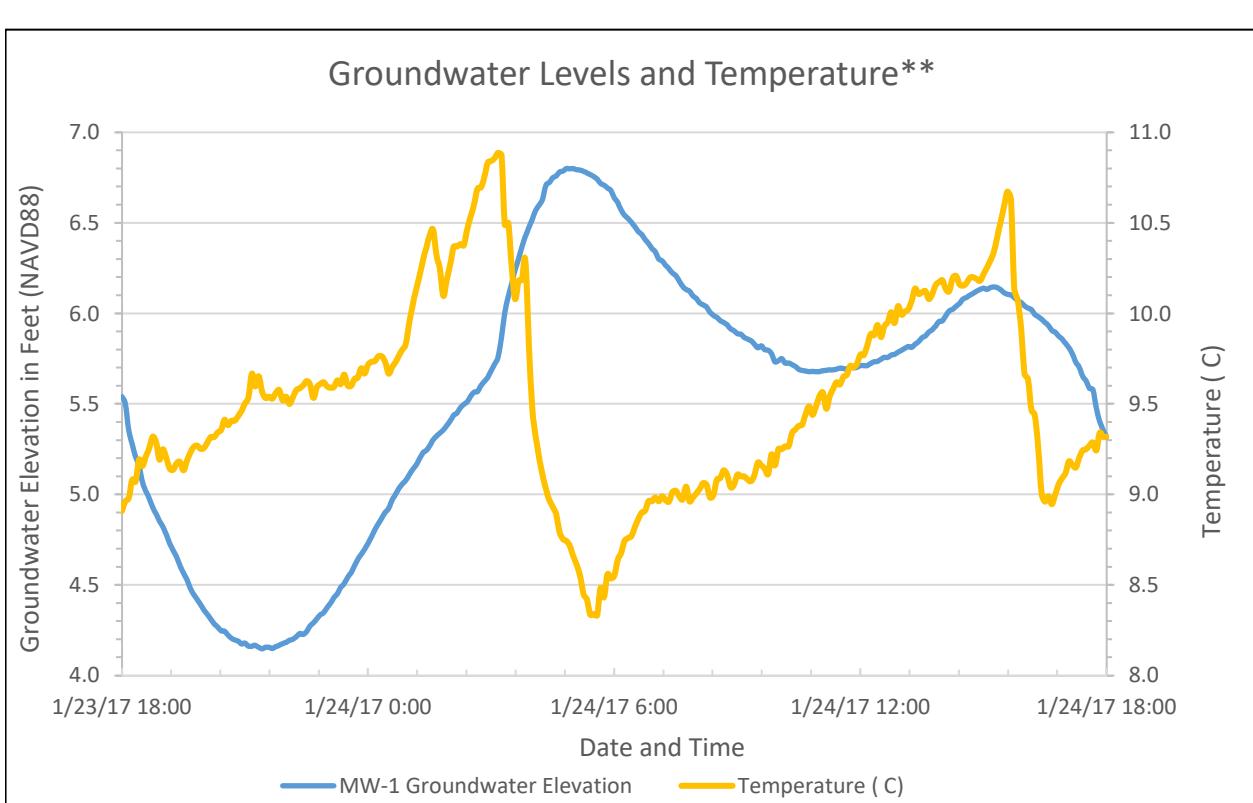
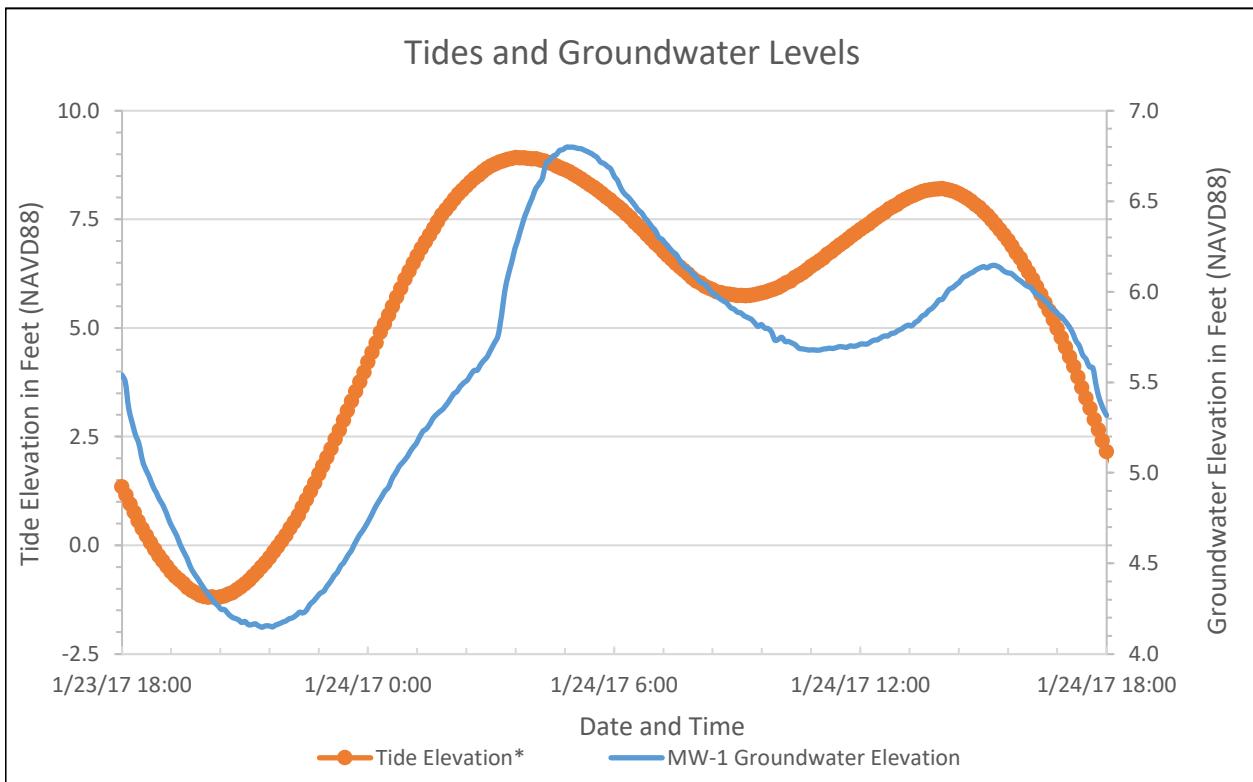
Parameter	MW-2	MW-3	MW-4	MW-7
Approx Distance from Tidal Interface in Feet	10	10	20	55
Storage Coefficient (Specific Yield)	0.1	0.1	0.1	0.1
Tidal Period in Hours	12.4	12.4	12.4	12.4
Time Lag in Hours	0.1	0.2	1.2	2.5
Avg Aquifer Thickness in Feet	4.5	4.5	4.5	4.5
K in cm/sec	2E+00	3E-01	5E-02	9E-02

Average (geometric mean) K for each well from two methods:	9E-02	1E-01	4E-02	3E-02
Site-Wide Fill Unit Average (Geometric Mean) K:	<b>6E-02</b>			

Note:

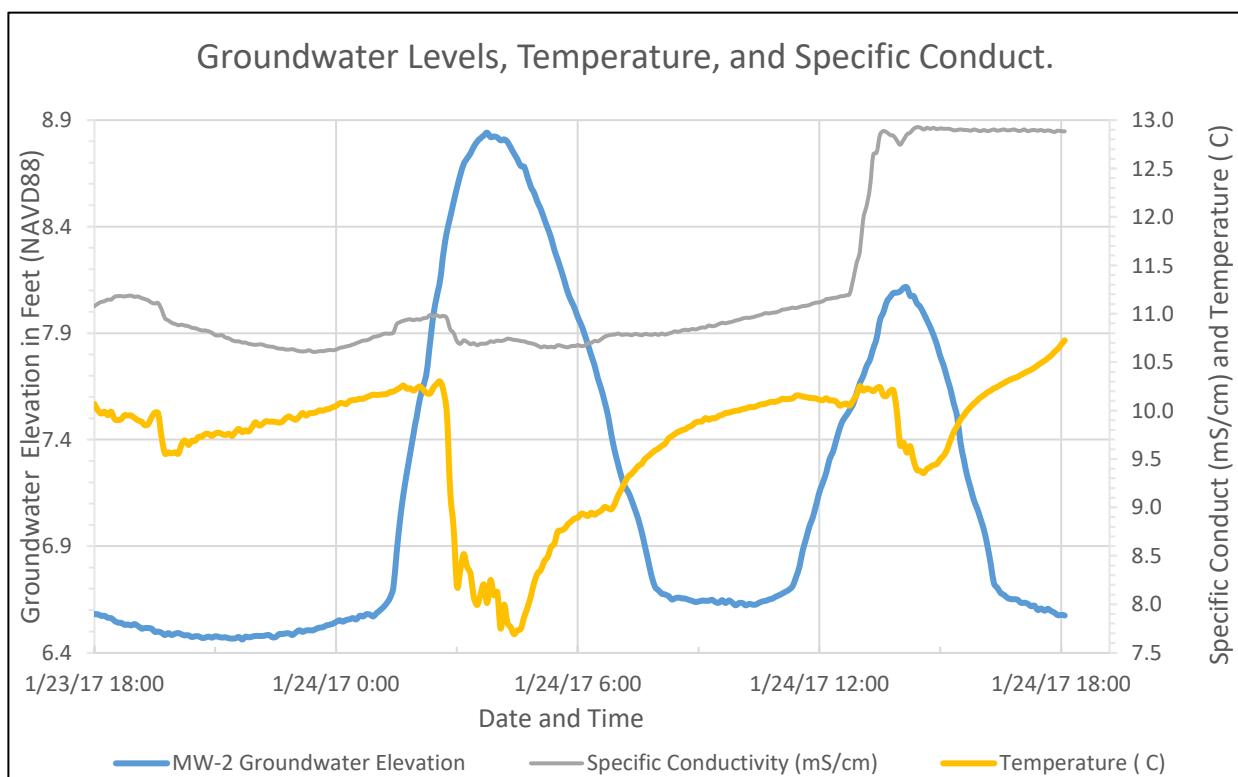
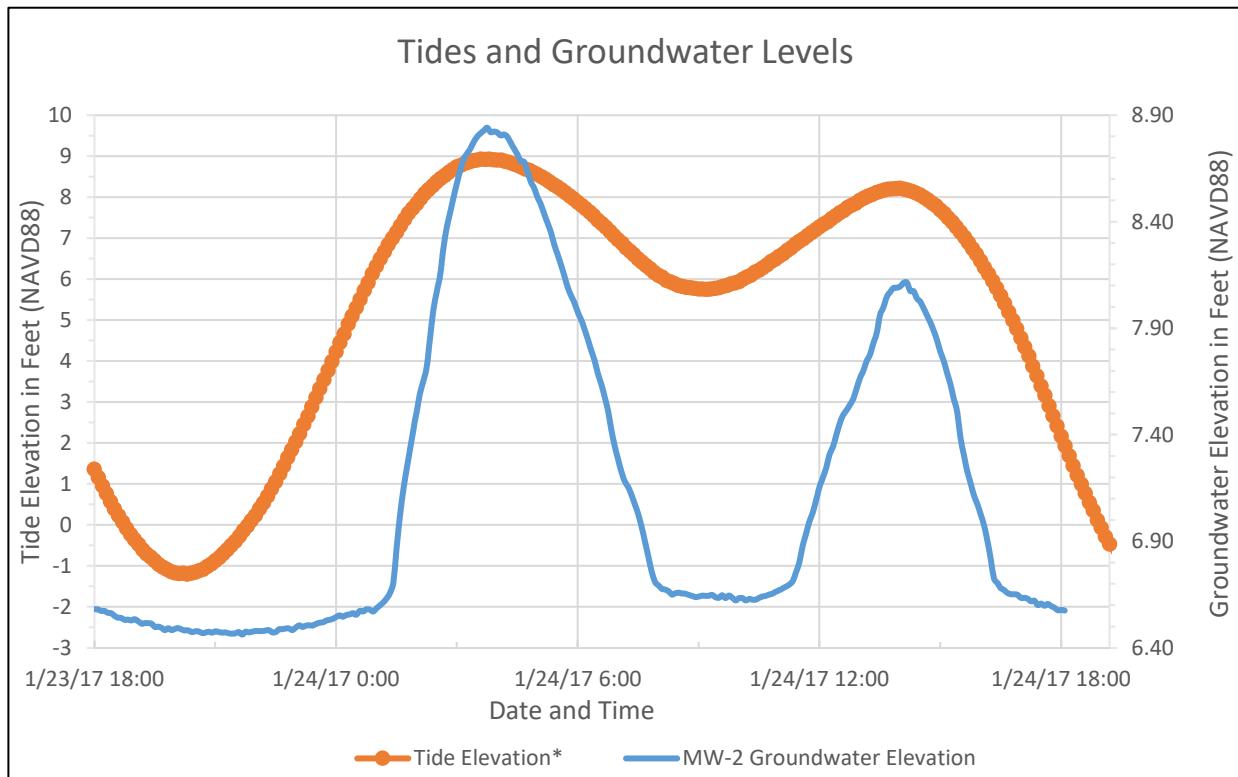
Calculations conducted only for Fill Unit wells with a clearly identifiable tidal fluctuation (refer to text).

# **FIGURES**

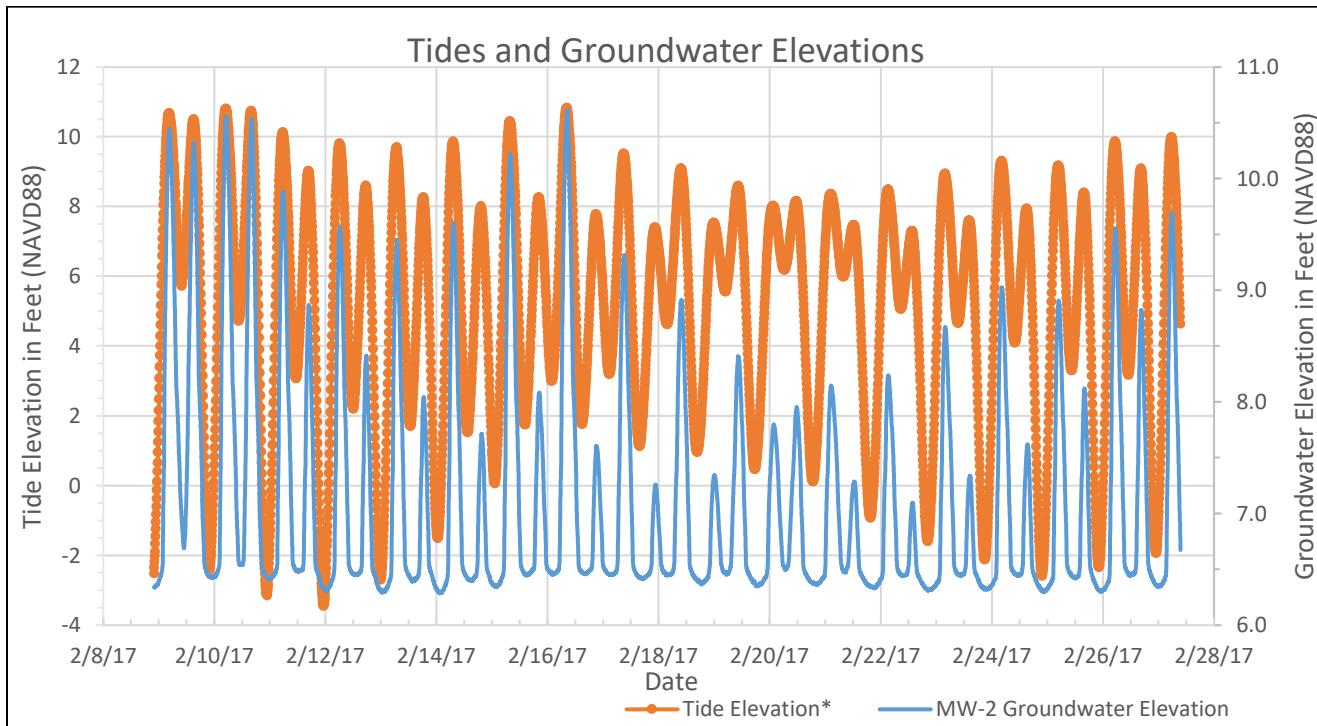


\*\*Specific conductance data not included due to instrument error.

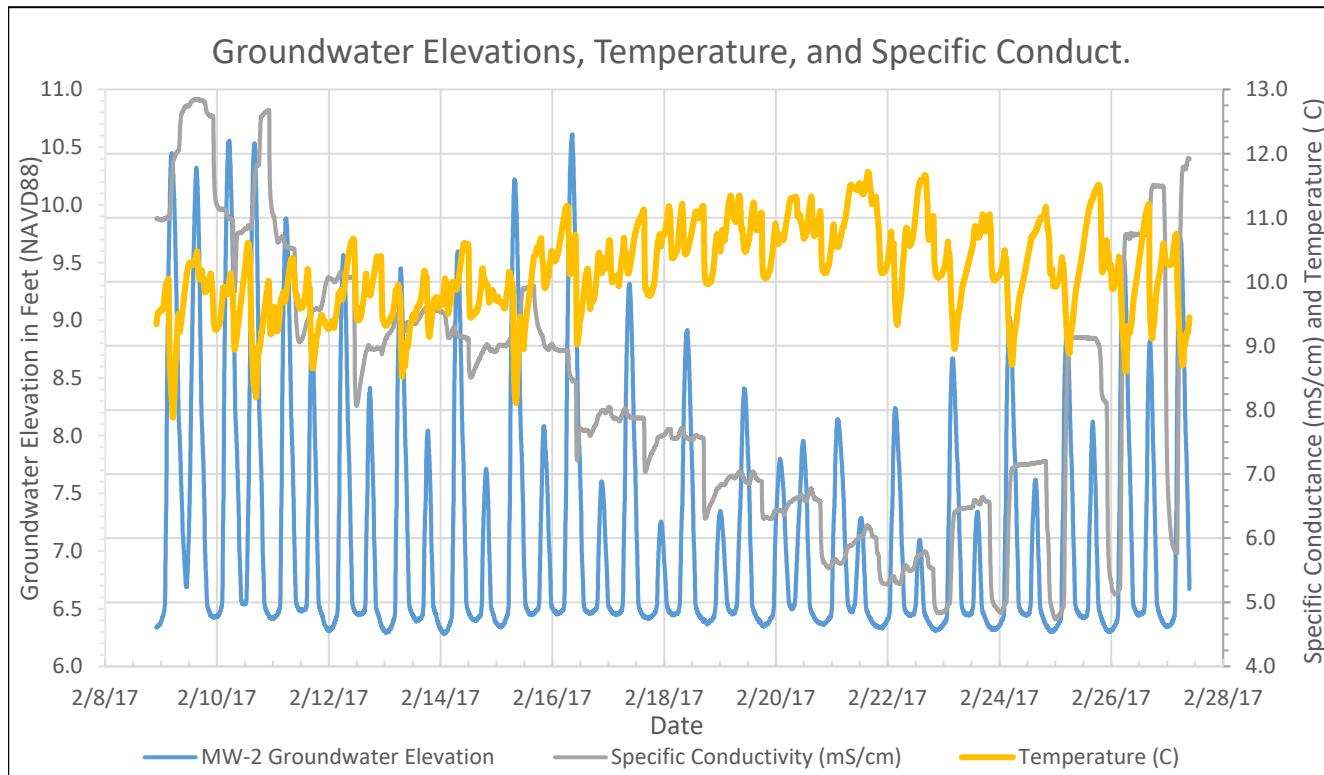
**Figure B-1**  
**MW-1 24-hour Tidal Monitoring**  
 Snopac Property RI/FS  
 Seattle, WA



**Figure B-2**  
**MW-2 24-hour Tidal Monitoring**  
 Snopac Property RI/FS  
 Seattle, WA

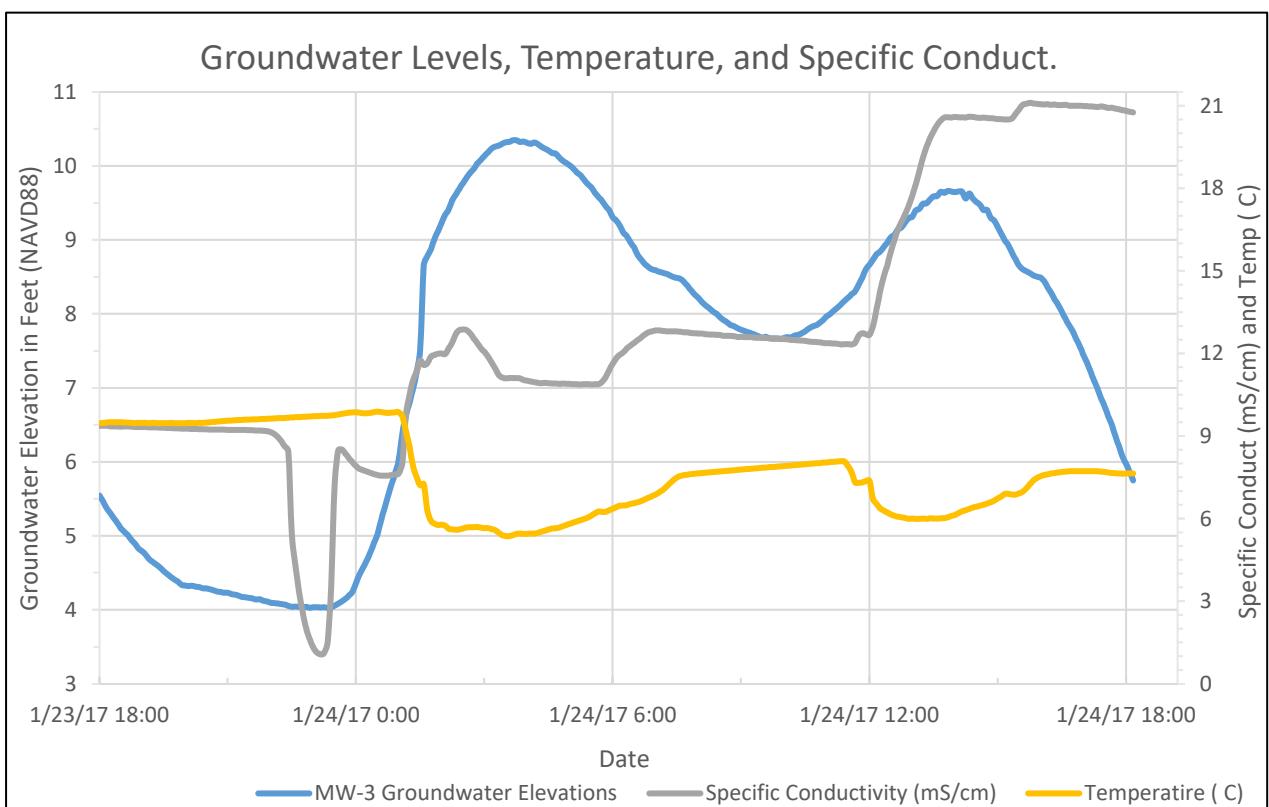
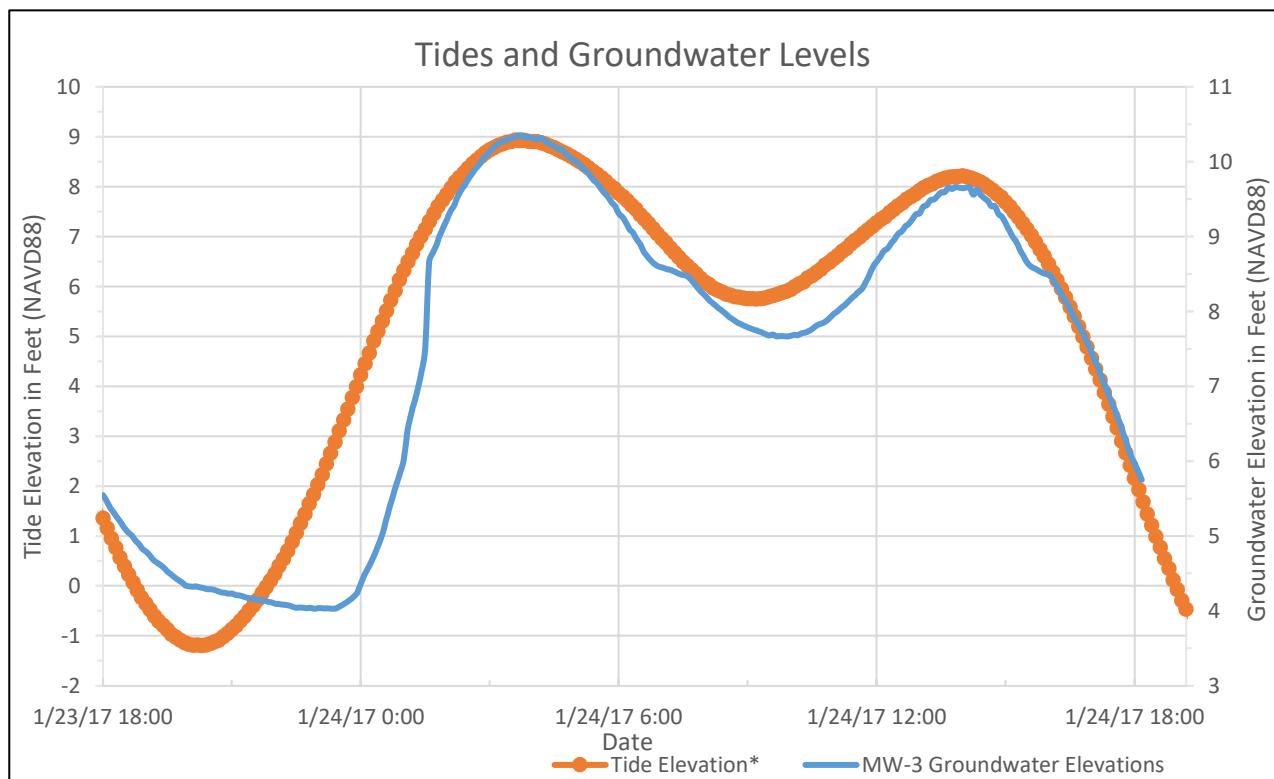


\*Tide station 9447130 Seattle, WA (from NOAA)



**Figure B-3**  
**MW-2 20-day Tidal Monitoring**

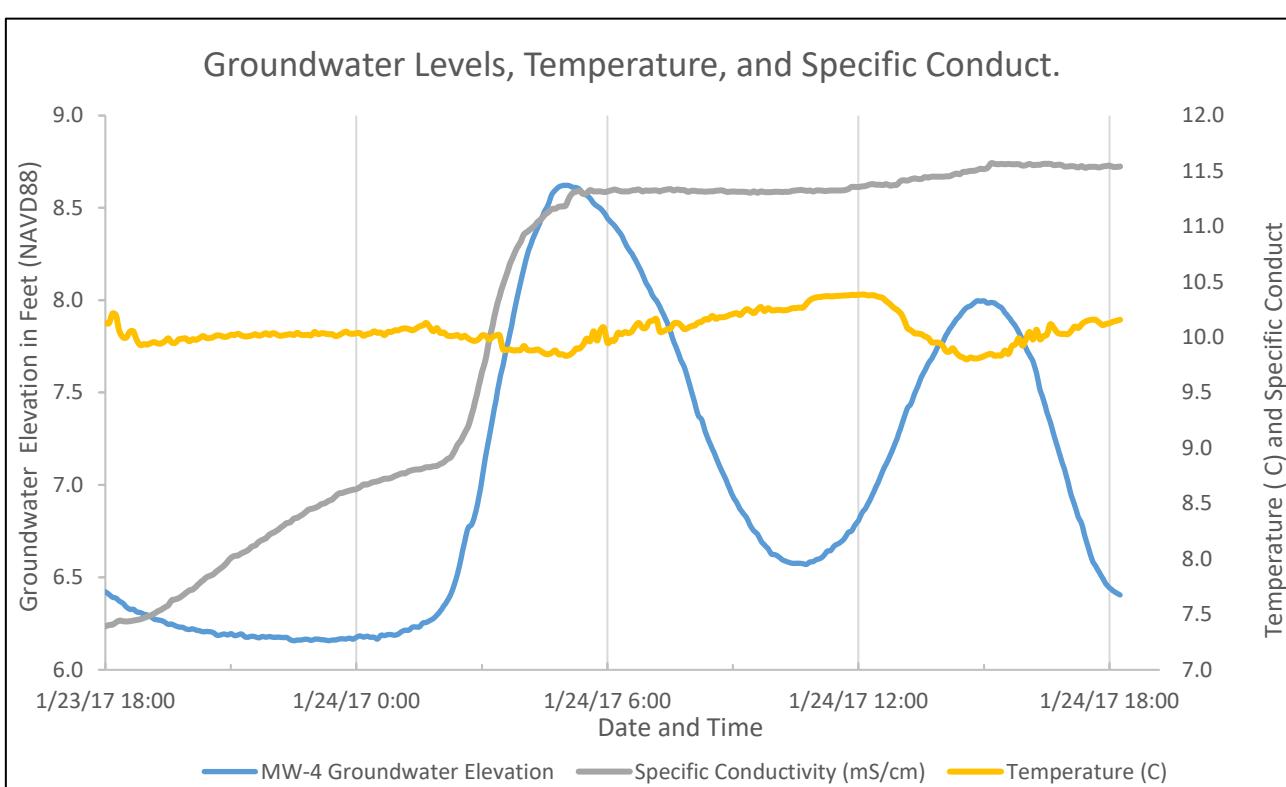
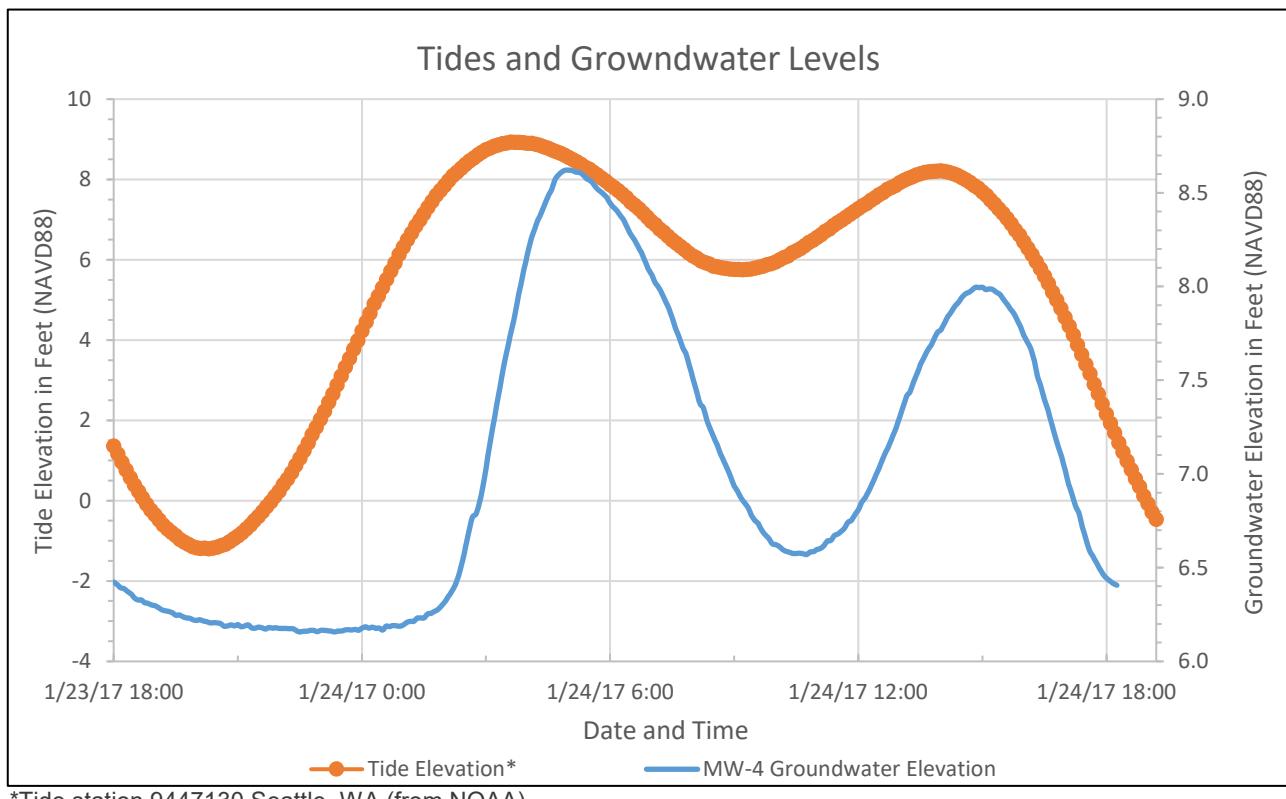
Snopac Property RI/FS  
Seattle, WA



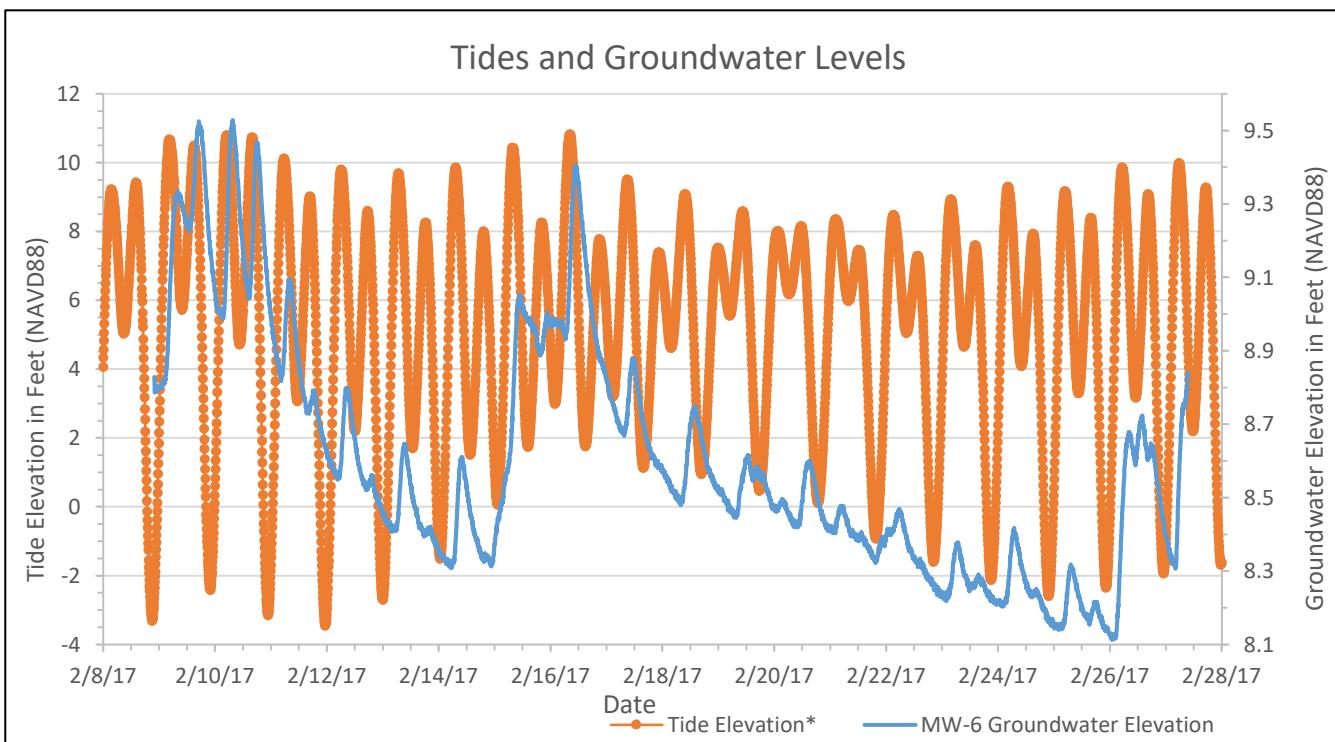
## Appendix B-4

### MW-3 24-hour Tidal Monitoring

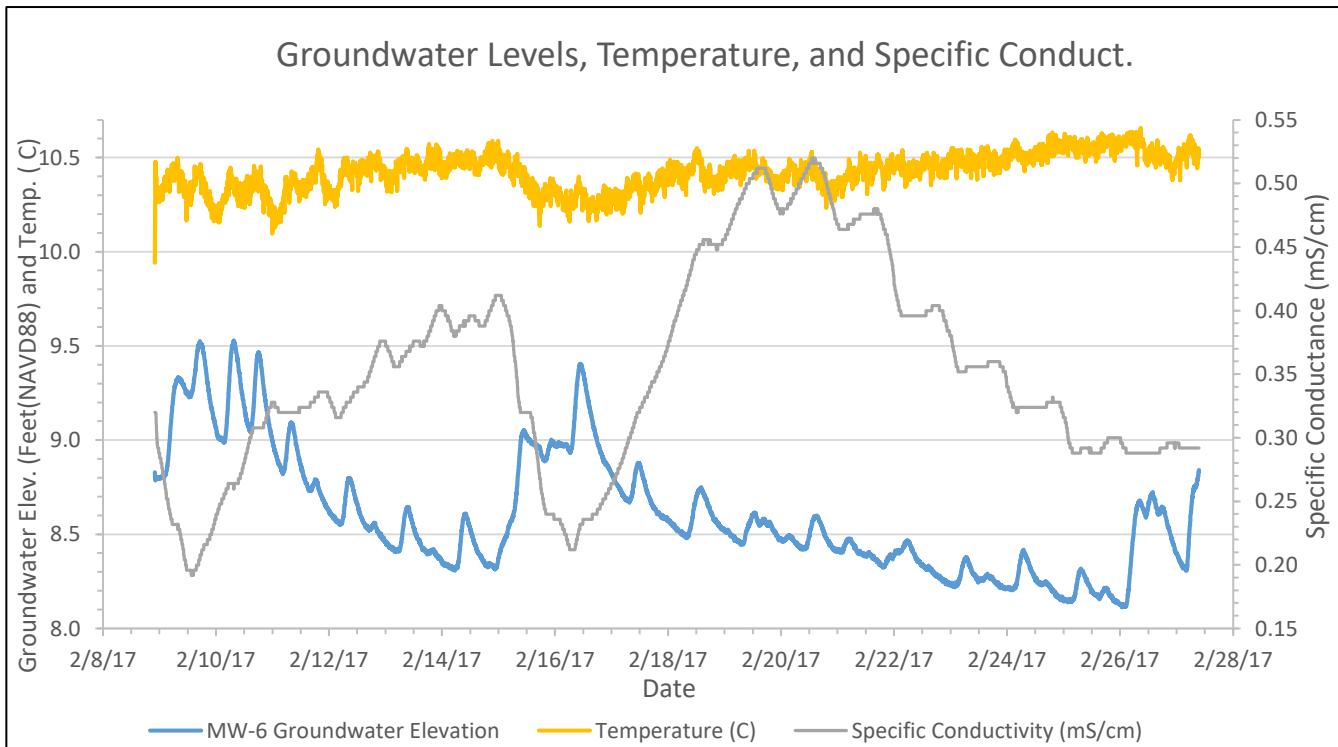
Snopac Property RI/FS  
Seattle, WA



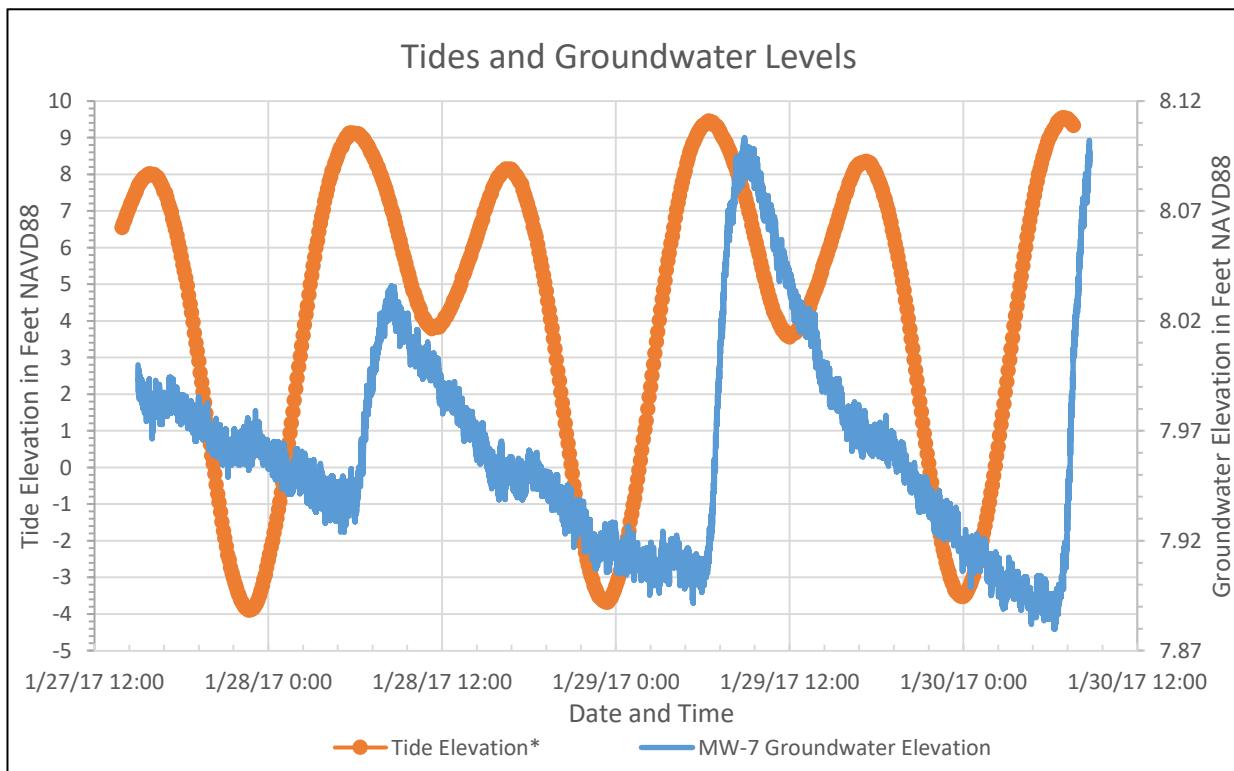
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**MW-4 24-hour Tidal Monitoring**  
 Snopac Property RI/FS  
 Seattle, WA



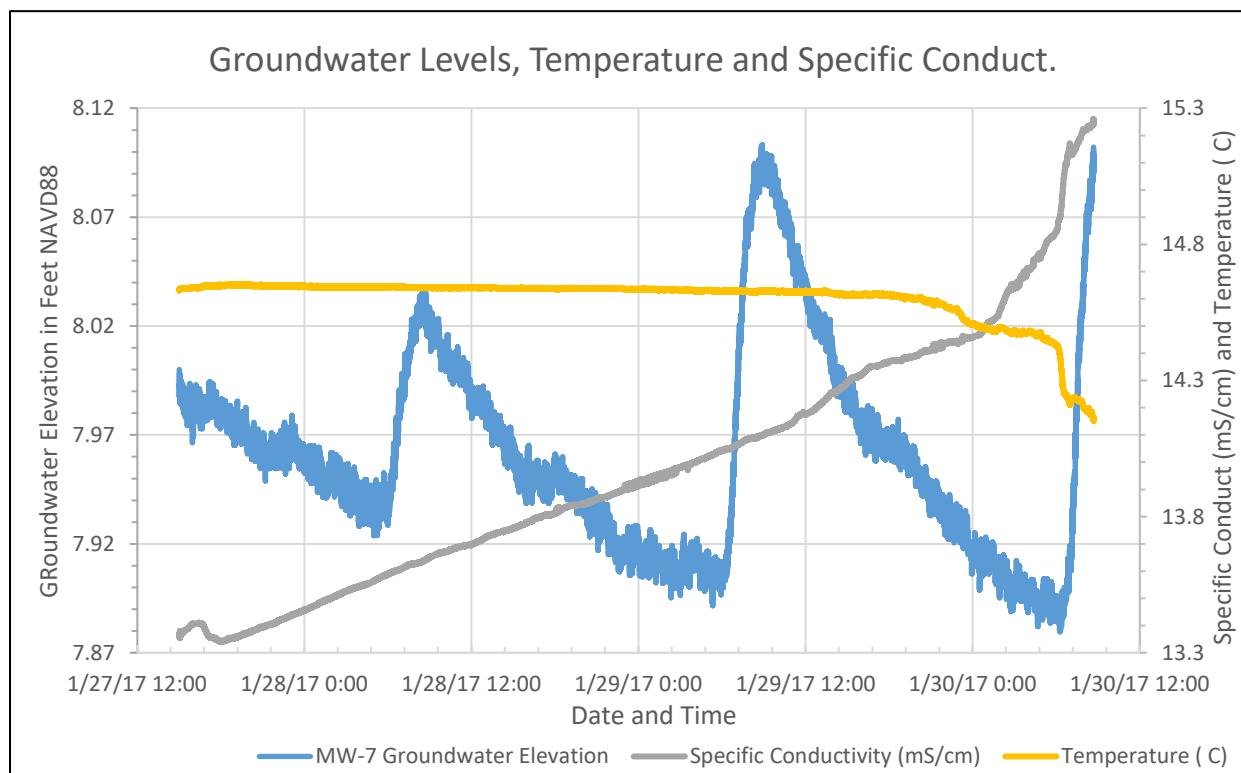
\*Tide station 9447130 Seattle, WA (from NOAA)



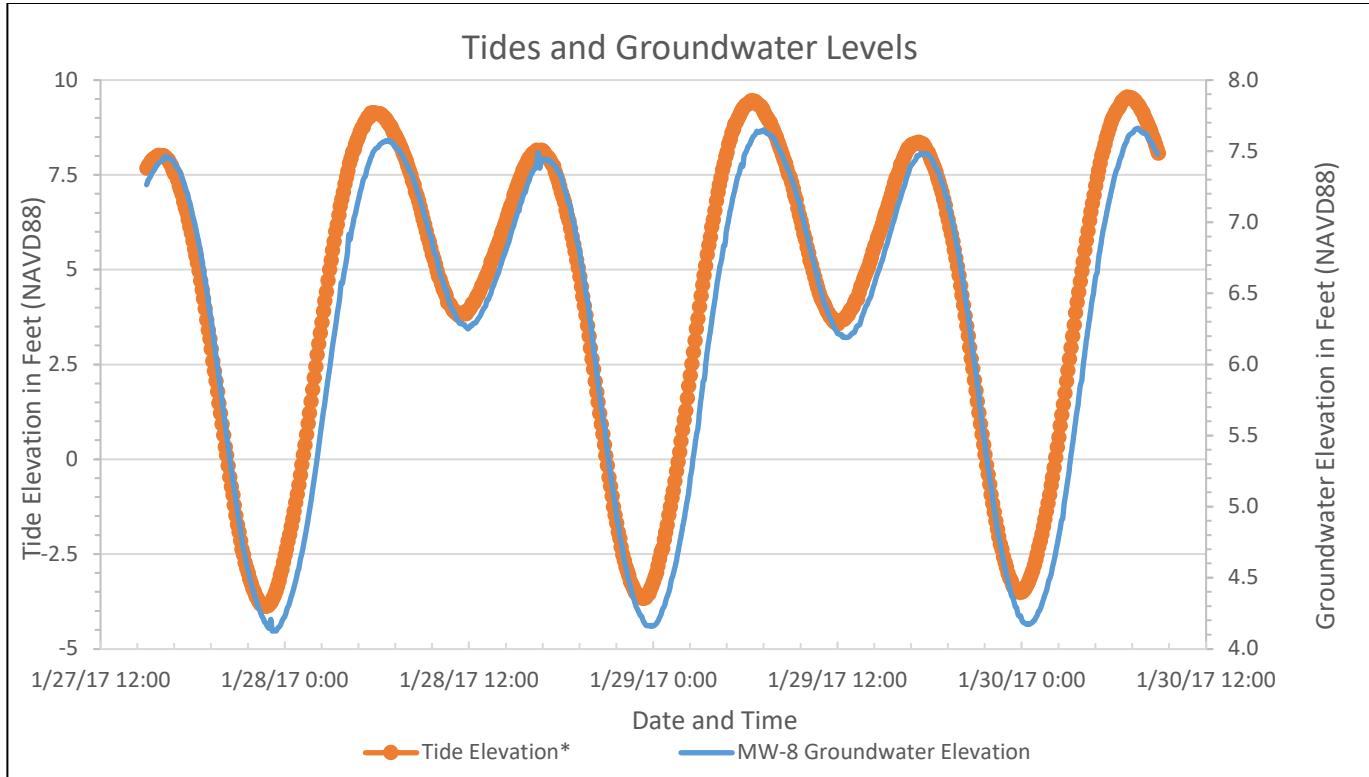
**Figure B-6**  
**MW-6 20-day Tidal Monitoring**  
 Snopac Property RI/FS  
 Seattle, WA



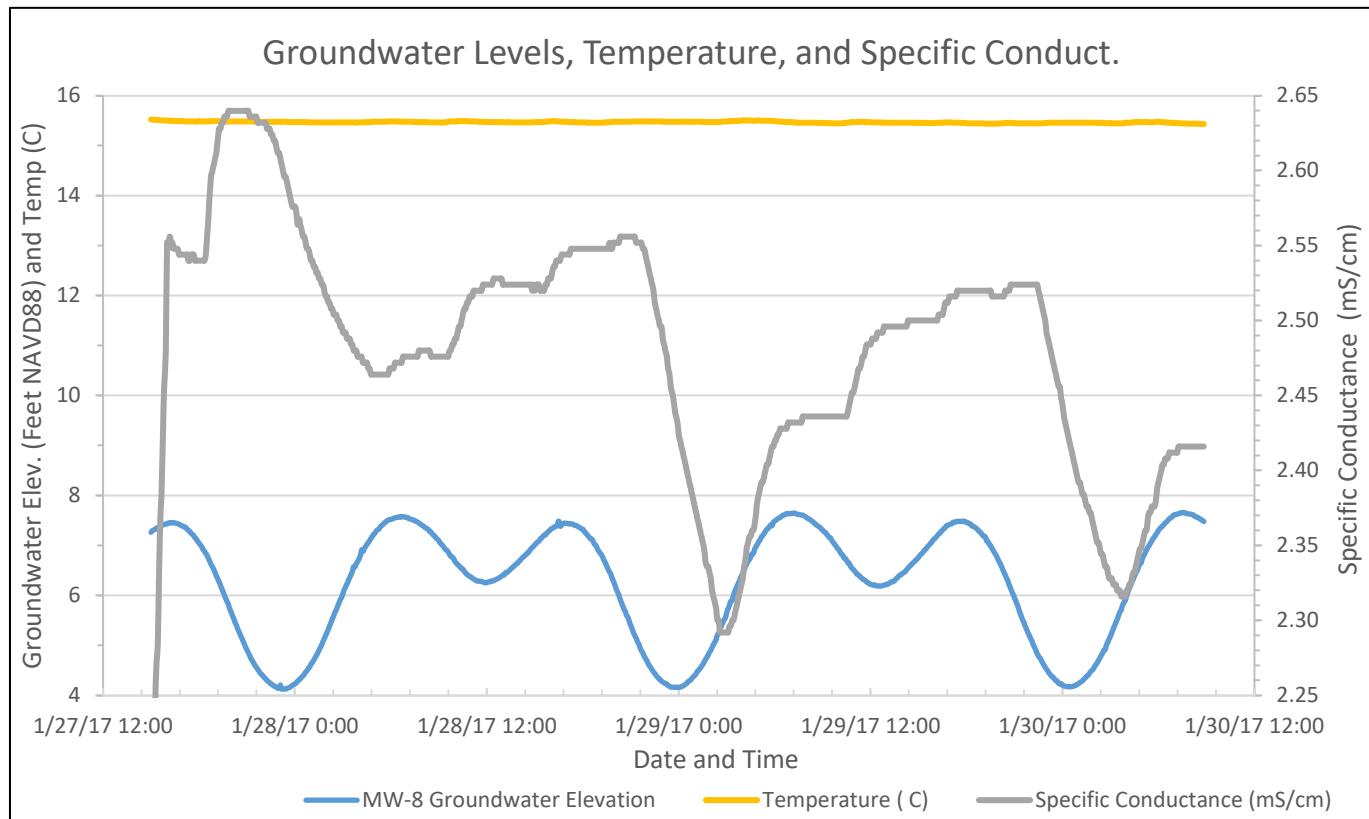
\*Tide station 9447130 Seattle, WA (from NOAA)



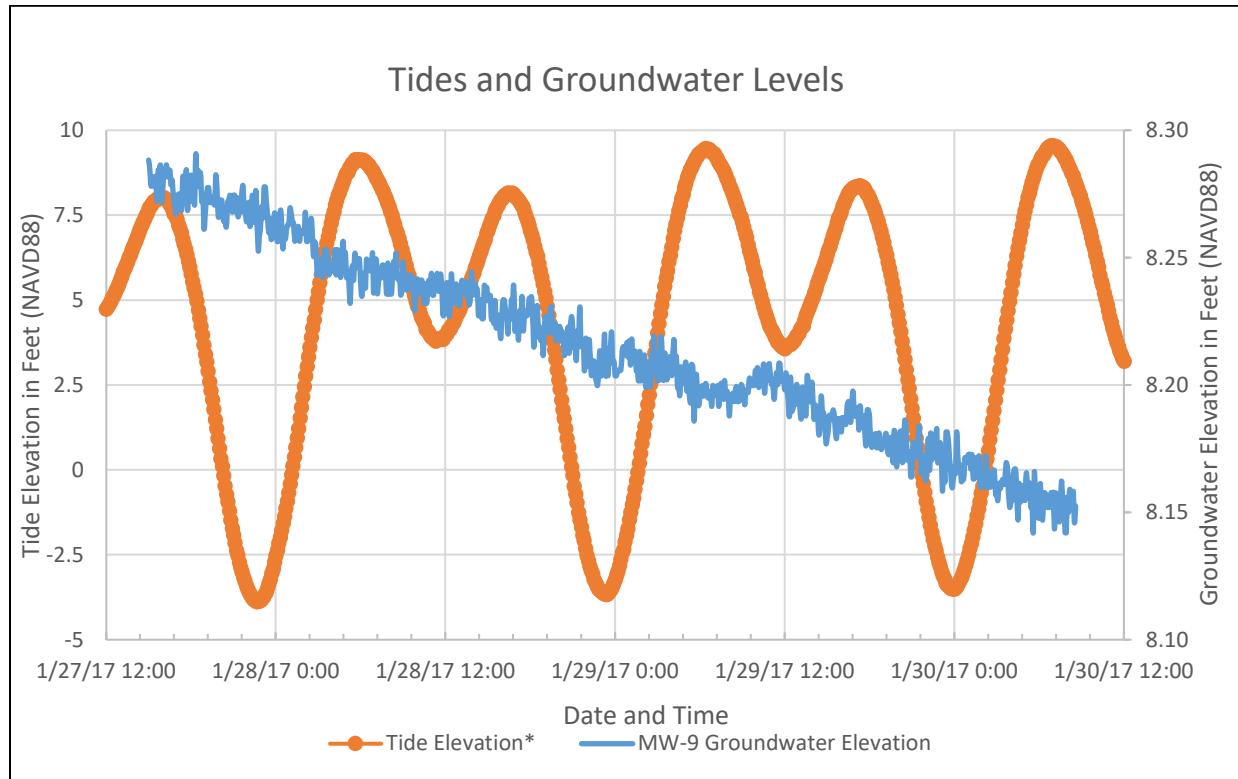
**Figure B-7**  
**MW-7 72-Hour Tidal Monitoring**



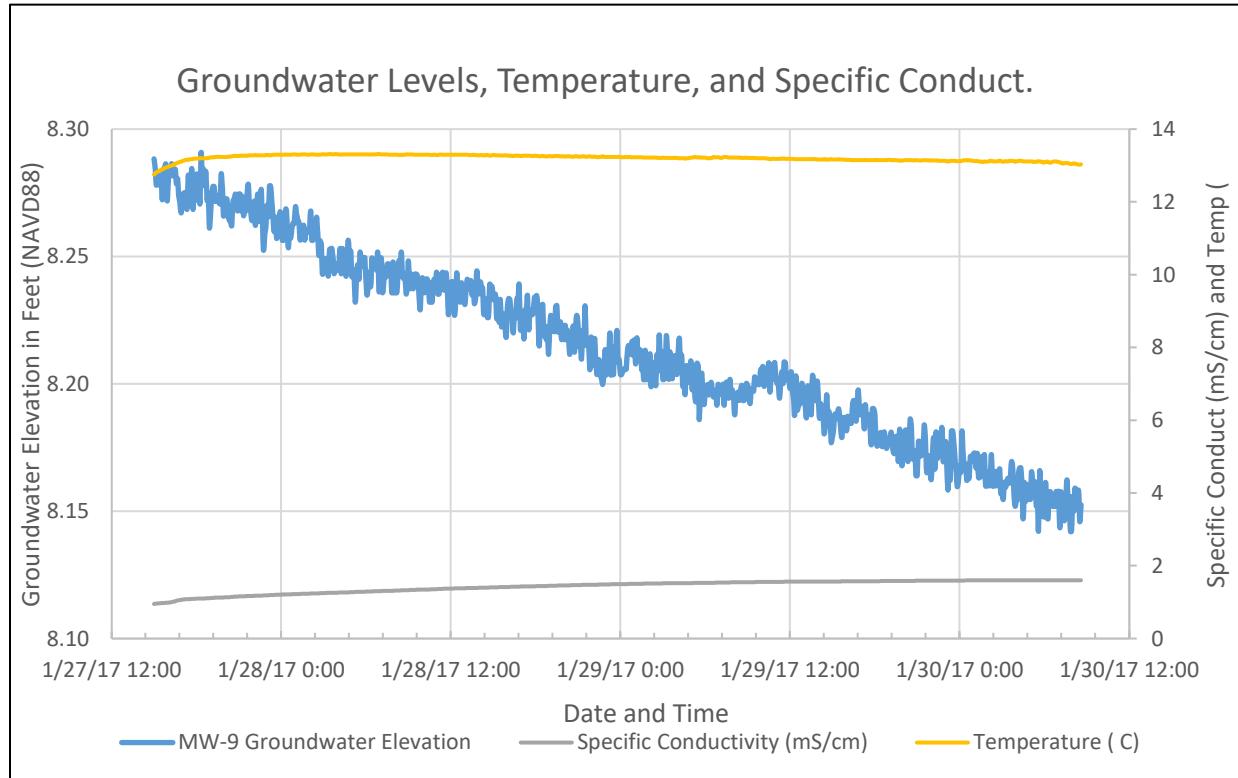
\*Tide station 9447130 Seattle, WA (from NOAA)



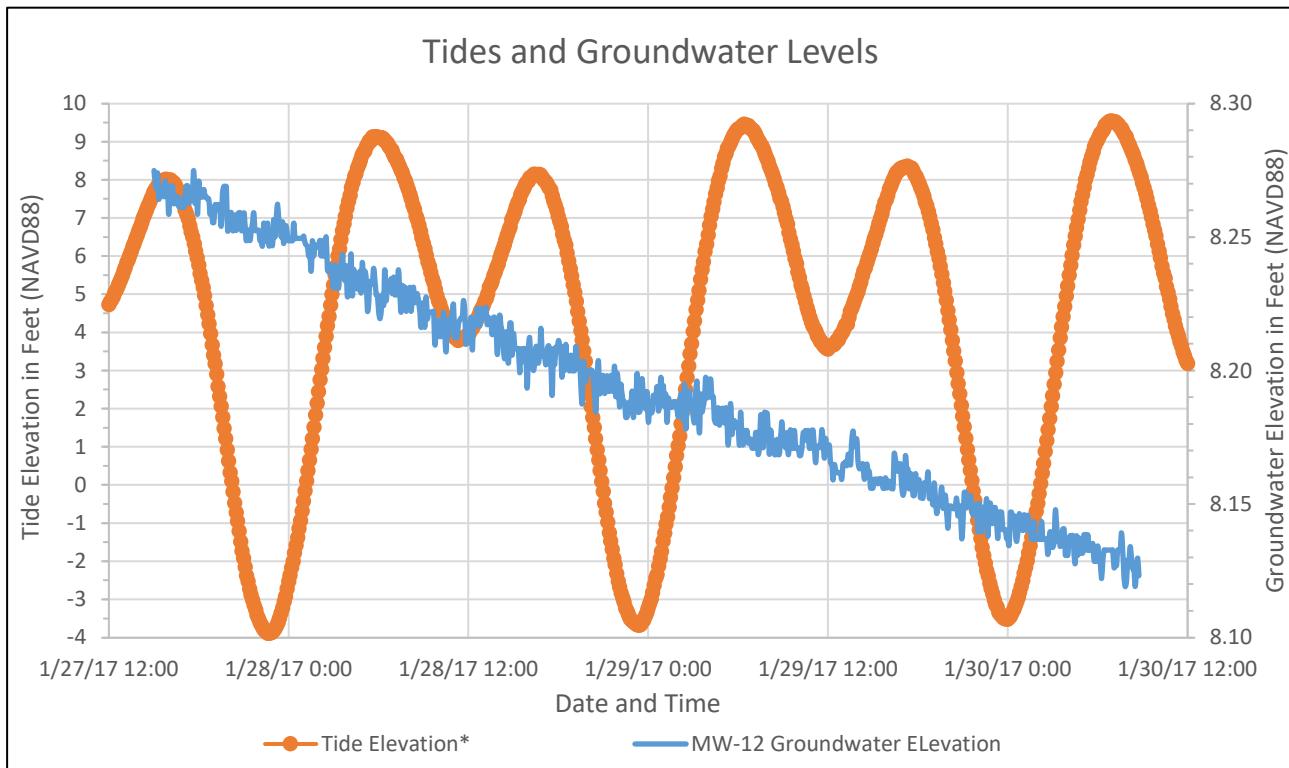
**Figure B-8**  
**MW-8 72-hour Tidal Monitoring**  
 Shopac Property RI/FS  
 Seattle, WA



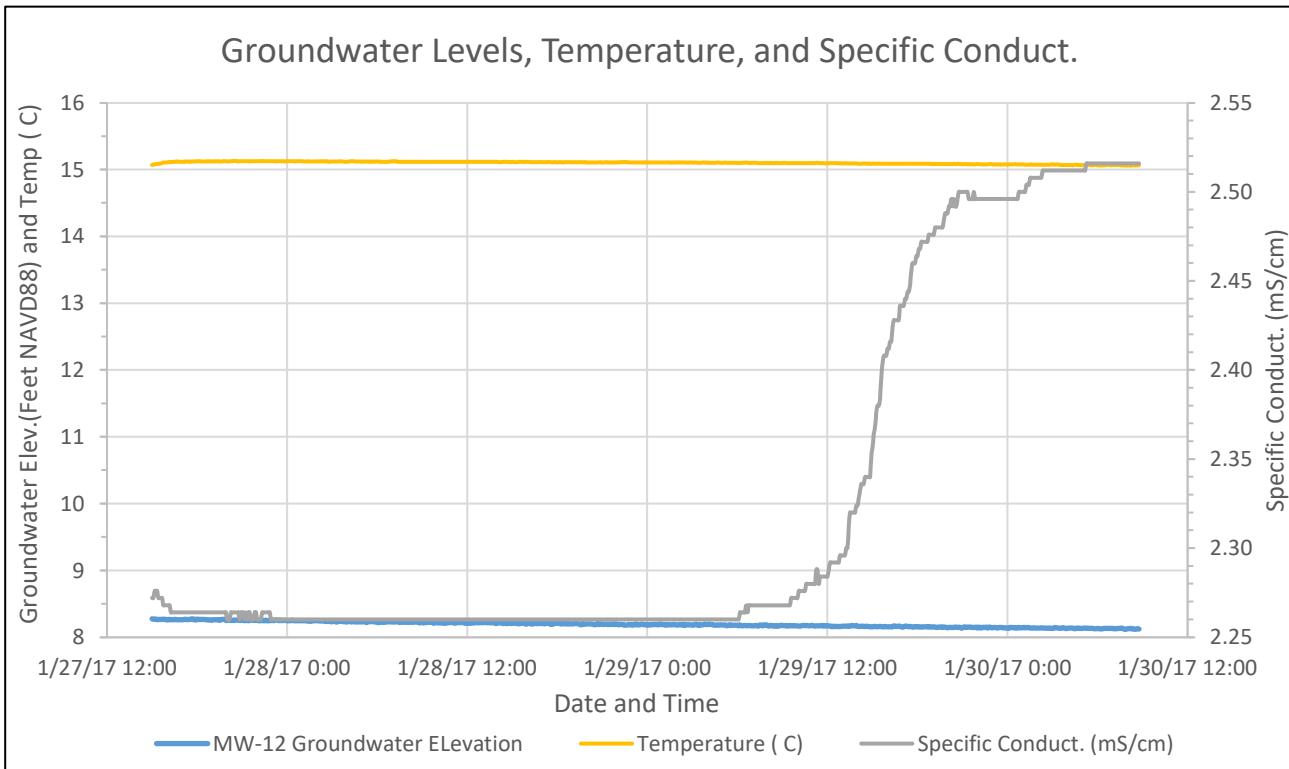
\*Tide station 9447130 Seattle, WA (from NOAA)



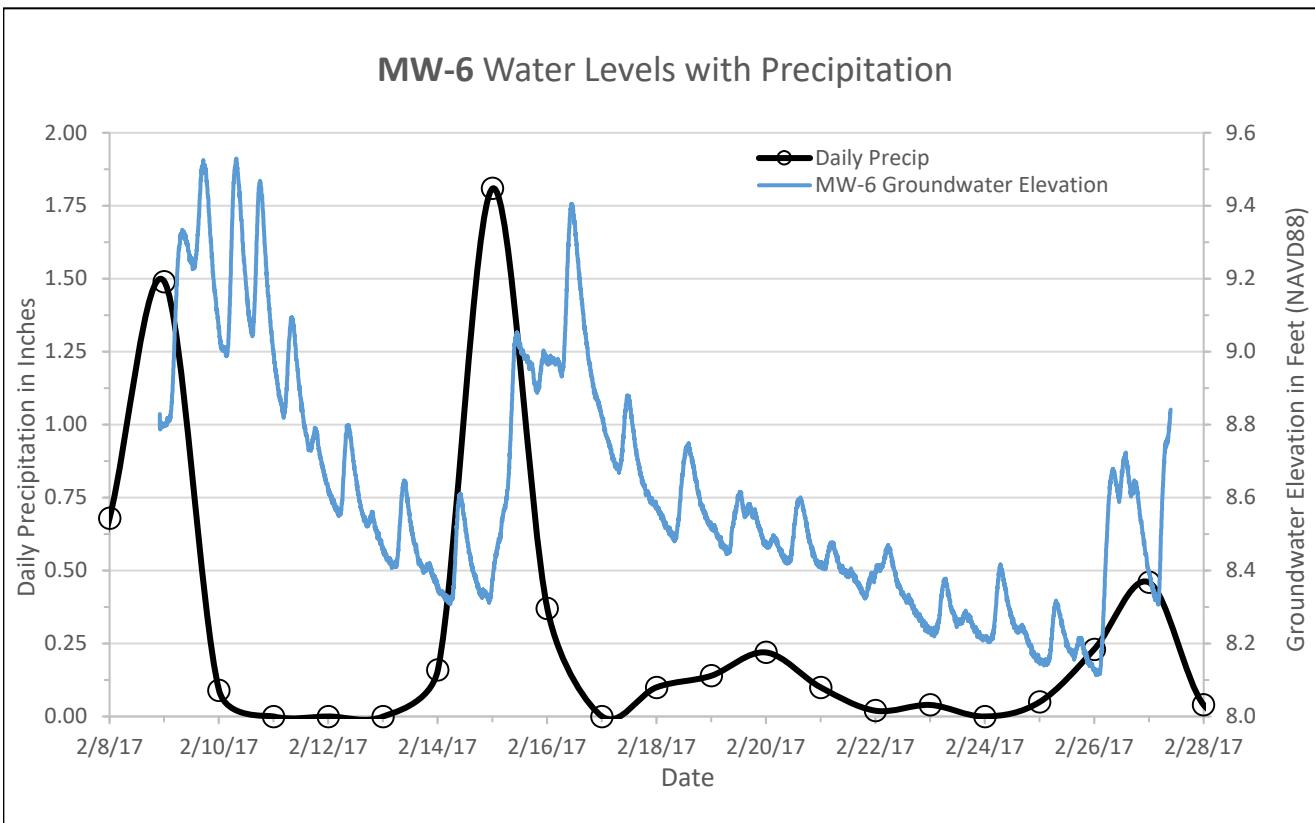
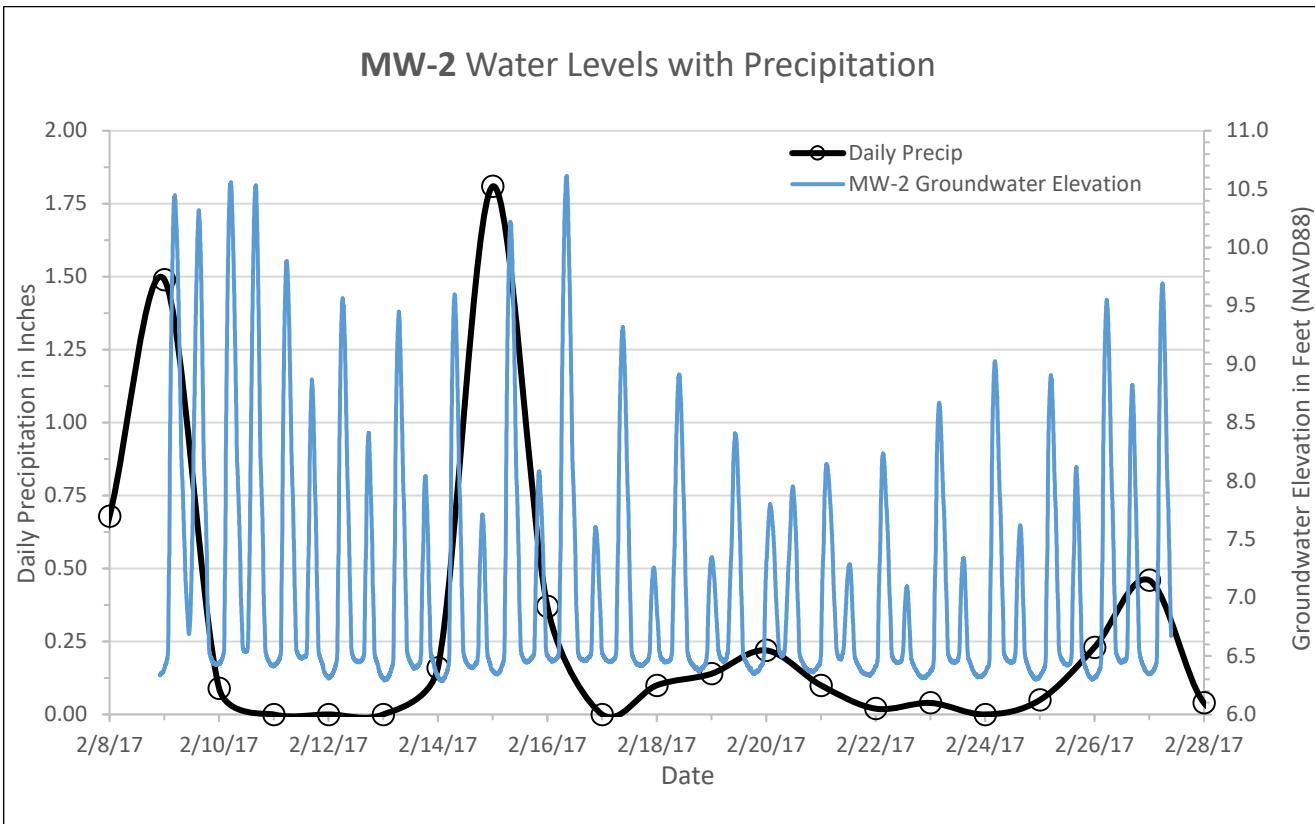
**Figure B-9**  
**MW-9 72-hour Tidal Monitoring**  
Snopac Property RI/FS  
Seattle, WA

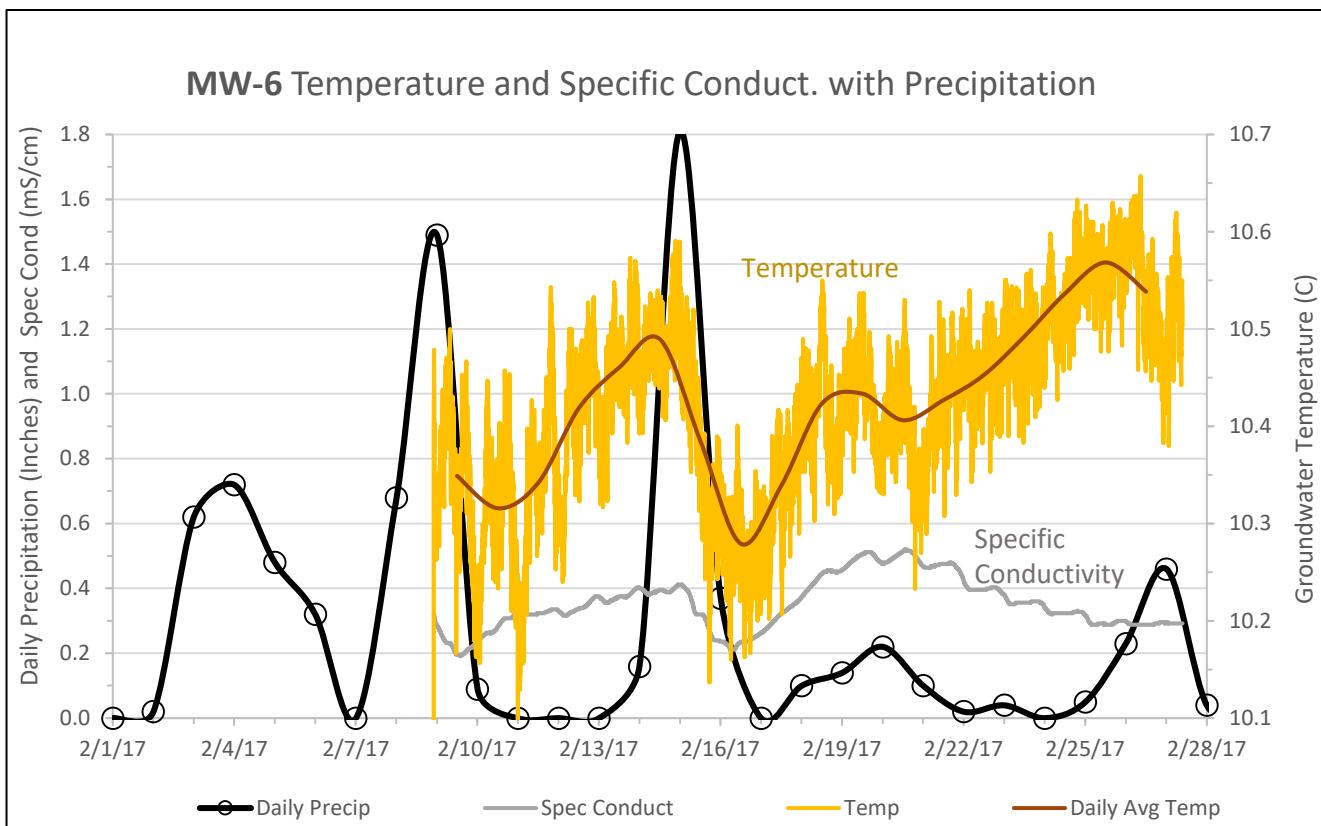
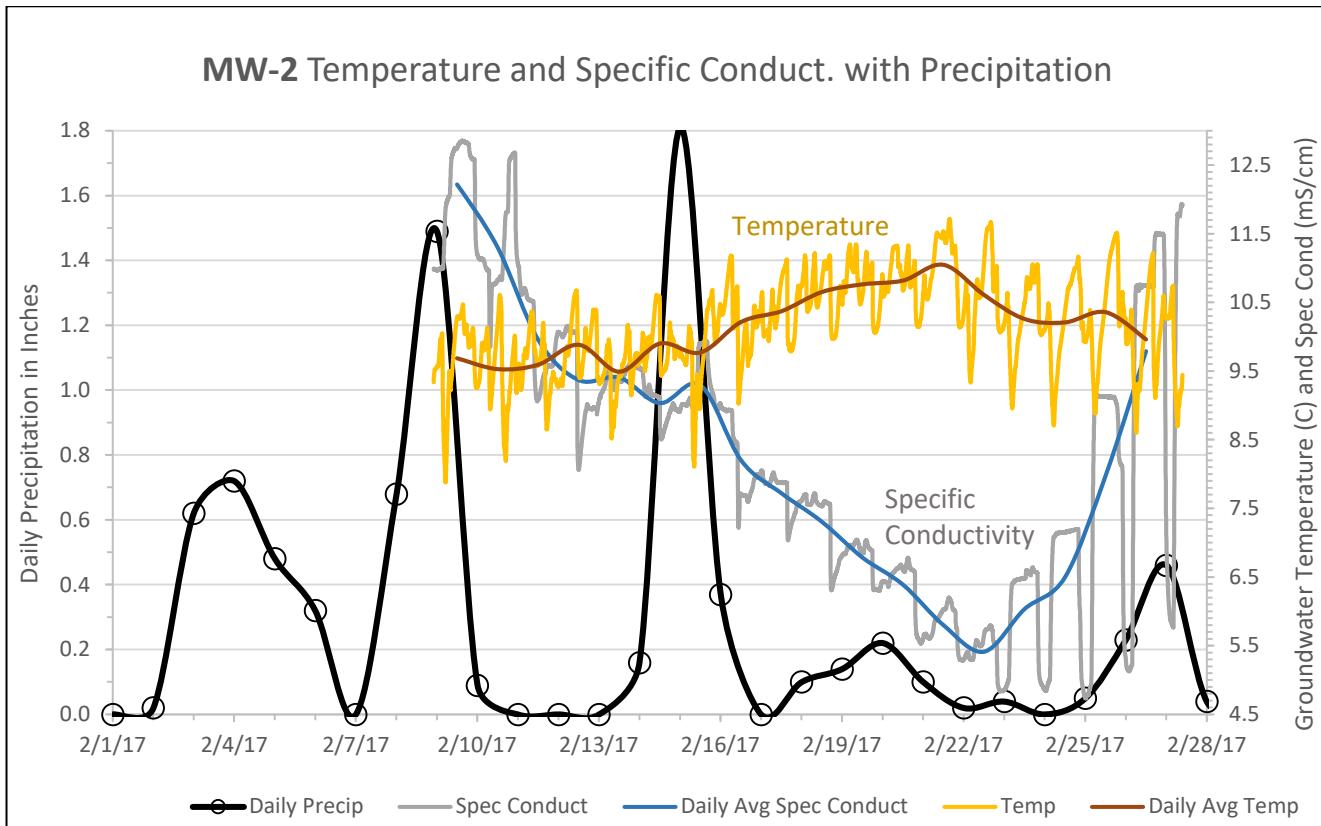


\*Tide station 9447130 Seattle, WA (from NOAA)



**Figure B-10**  
**MW-12 72-hour Tidal Monitoring**  
 Snopac Property RI/FS  
 Seattle, WA





## **APPENDIX C**

### **Soil Boring and Monitoring Well Construction Logs**

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.



## Exploration Log Key

DATE:	PROJECT NO.
DESIGNED BY:	
DRAWN BY:	FIGURE NO.
REVISED BY:	C-1

Snopac - 150054							Environmental Exploration Log			
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>B-1</b>		
5055 E Marginal Way S, Seattle, Washington										
Contractor Holt	Equipment Direct push rig		Sampling Method Percussion hammer			Ground Surface (GS) Elev. NA				
Operator Mike	Exploration Method(s) Direct push		Work Start/Completion Dates 1/23/2017			Top of Casing Elev. NA		Depth to Water (Below GS) 12' (ATD)		
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description			
1					PID= 7.4		Topsoil <b>FILL</b> Dry, gray, gravelly silty SAND (SM); fine to coarse sand and bricks (red brick in shoe)			
2										
3										
4		Backfilled with 3/8" bentonite chips			PID= 2.8		Red Brick at 4.2 ft.			
5										
6										
7										
8					PID= 2.7		Slightly moist, brown, slightly silty SAND (SP-SM); trace fine angular gravel and wood, fine to coarse sand and bricks, sulfur-like odor, red brick at 8.25 ft.			
9					PID= 2.2					
10					PID= 2.7		<b>ESTUARY DEPOSITS</b> Very moist, dark gray, SAND (SP); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts			
11										
12										
13										
14										
15										
16							<b>RECENT ALLUVIUM</b> Very moist, dark gray, SAND (SP); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts			
17										
18										
19										
20							Bottom of exploration at 20 ft. bgs.			
21										
22										
23										
24										
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	 Water Level ATD			See Exploration Log Key for explanation of symbols				
Sample Method							Logged by: ENK Approved by: MLK 9/26/2019			
							<b>Exploration Log</b> <b>B-1</b> Sheet 1 of 1			



Snopac - 150054						Environmental Exploration Log		
Project Address & Site Specific Location						Coordinates NA	Exploration Number <b>B-2</b>	
5055 E Marginal Way S, Seattle, Washington								
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer		Ground Surface (GS) Elev. NA		
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/24/2017		Top of Casing Elev. NA	Depth to Water (Below GS) 15' (ATD)	
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	
1		Backfilled with 3/8" bentonite chips		S1			FILL	
2							Moist, brown, gravelly SAND (SW); trace silt nodules ~ 4 - 6 mm in diameter, fine to medium sand, fine to coarse angular to subangular gravel	
3							Moist, brown, SAND (SW); fine to medium sand	
4							Becomes gray at 3.5 ft.	
5						PID= 1.0 PID= 0.8	Trace organics from 5 - 6 ft. Becomes medium brown at 5.2 ft.	
6						PID= 0.8	Dark gray gravel from 6.0 - 6.2 ft.	
7				S2			Very moist, gray, SAND (SW) interbedded with silty SAND (SM); fine to medium sand	
8								
9								
10						PID= 1.1	Wood at 10.2 ft. Red brick at 10.4 ft.	
11						PID= 1.1	ESTUARY DEPOSITS	
12						PID= 40.0	Moist, brown, silty SAND (SM); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts	
13				S3			Very moist, gray, SAND (SW); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts	
14							Wet, gray, very silty SAND (SM); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts, laminar bedding throughout	
15						PID= 1.2	RECENT ALLUVIUM	
16						PID= 119.8	Wet, gray, SAND (SW) interbedded with silty SAND (SM) from 15.7 - 16.6 ft.; trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts	
17						PID= 1.4		
18						PID= 1.3		
19								
20							Bottom of exploration at 20 ft. bgs.	
21								
22								
23								
24								
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	Water Level ATD		See Exploration Log Key for explanation of symbols		<b>Exploration Log B-2</b>	
Sample Method							Logged by: ENK Approved by: MLK 9/26/2019	
							Sheet 1 of 1	



## Snopac - 150054

## Environmental Exploration Log

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

B-3

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

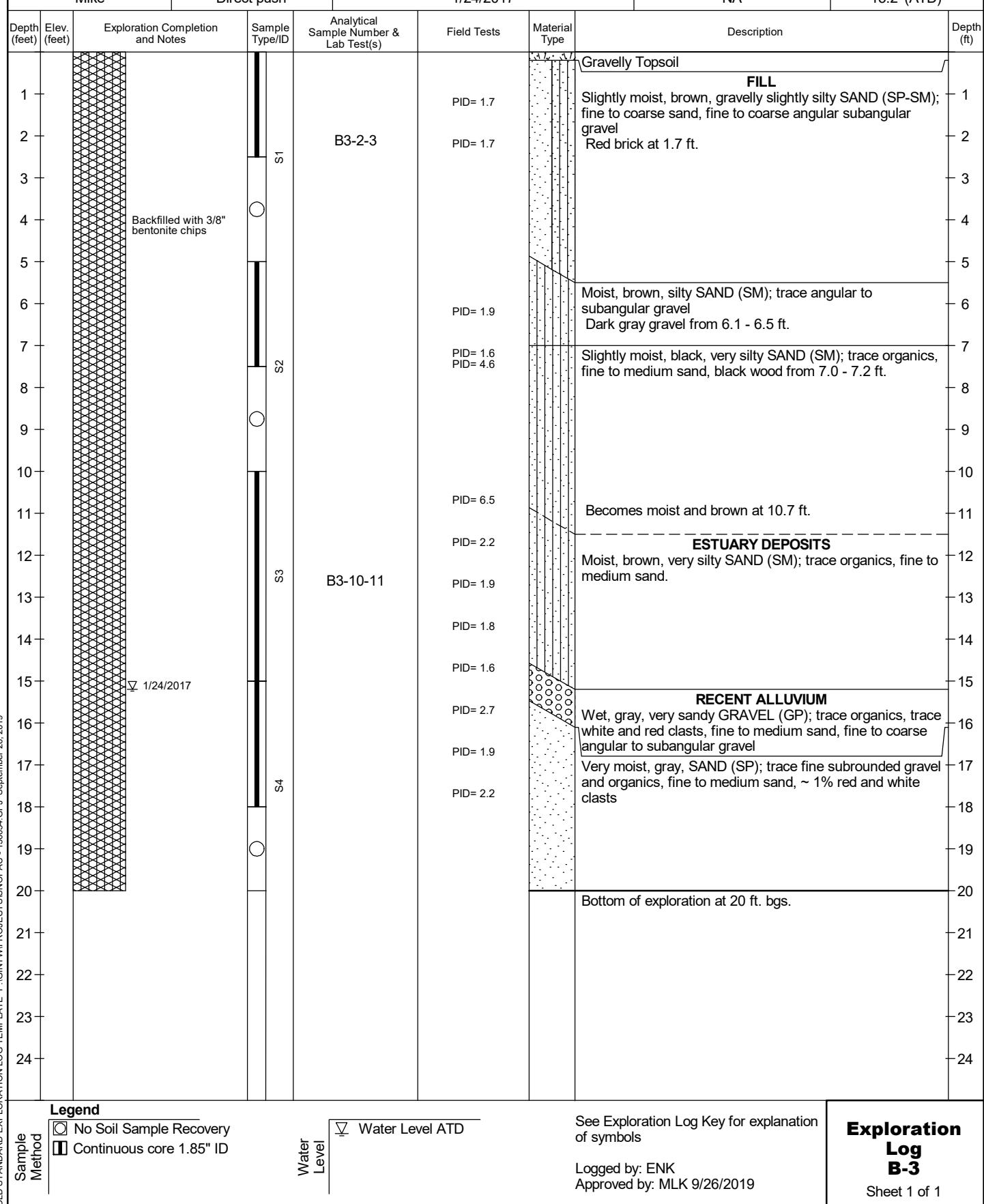
1/24/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

15.2' (ATD)





Snopac - 150054							Environmental Exploration Log			
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>B-4</b>		
5055 E Marginal Way S, Seattle, Washington										
Contractor Holt	Equipment Direct push rig		Sampling Method Percussion hammer			Ground Surface (GS) Elev. NA				
Operator Mike	Exploration Method(s) Direct push		Work Start/Completion Dates 1/24/2017			Top of Casing Elev. NA		Depth to Water (Below GS) 15' (ATD)		
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description			
1				B4-SBG-0 PCBs, TBT, SVOC, BTEX+H	PID= 2.6		Gravelly Topsoil			
2			S1	B4-2.4-4.5	PID= 2.7		<b>FILL</b> Moist, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)			
3		Backfilled with 3/8" bentonite chips			PID= 2.6		Slightly moist, brown, silty SAND (SM); fine to medium sand, concrete fragments and wood from 1.0 - 1.6 ft.			
4					PID= 2.5		Moist, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)			
5					PID= 0.0		Slightly moist, brown, sandy silty GRAVEL (GM); fine to coarse sand, fine to coarse subangular to subrounded gravel			
6					PID= 0.0		Wood from 5.5 - 6.0 ft., becomes gray at 6.0 ft.			
7			S2		PID= 0.0		Becomes black at 6.9 ft. Becomes light brown at 7.1 ft.			
8					PID= 0.0					
9					PID= 0.0					
10					PID= 0.0					
11					PID= 0.0					
12			S3	B4-11.9-12.3	PID= 0.0		Moist, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)			
13					PID= 0.1		<b>ESTUARY DEPOSITS</b> Very moist, dark brown, SAND (SW); trace mica, trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts			
14					PID= 0.0					
15			S4		PID= 0.1		Wet, brown, sandy silty GRAVEL (GM); fine to coarse sand, fine subangular to subrounded gravel			
16					PID= 0.2		<b>RECENT ALLUVIUM</b> Wet, gray, SAND (SW); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts			
17					PID= 0.0					
18										
19										
20							Bottom of exploration at 20 ft. bgs.			
21										
22										
23										
24										
Sample Method	Legend			See Exploration Log Key for explanation of symbols			<b>Exploration Log B-4</b> Sheet 1 of 1			
	<input type="checkbox"/> No Soil Sample Recovery	<input checked="" type="checkbox"/> Continuous core 1.85" ID	Water Level	Water Level ATD	Logged by: ENK	Approved by: MLK 9/26/2019				


**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-4A**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/24/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1		Backfilled with 3/8" bentonite chips					Gravelly Topsoil <b>FILL</b> Slightly moist, dark brown, gravelly, very silty SAND (SM); fine to coarse sand	1
2				S1			Moist, dark brown to black, SAND (SP); fine to medium sand	2
3								3
4				○				4
5				○				5
6				S2			Refusal at 6 ft., concrete fragments in shoe	6
							Bottom of exploration at 6 ft. bgs.	
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
<b>Legend</b>						See Exploration Log Key for explanation of symbols		<b>Exploration Log B-4A</b>
Sample Method		<input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID	Water Level	No Water Encountered				Sheet 1 of 1
							Logged by: ENK Approved by: MLK 9/26/2019	

Aspect CONSULTING		Snopac - 150054				Environmental Exploration Log		
		Project Address & Site Specific Location				Coordinates	Exploration Number <b>B-5</b>	
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer		NA		
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/24/2017		Top of Casing Elev. NA	Depth to Water (Below GS) 15' (ATD)	
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1		Backfilled with 3/8" bentonite chips	S1		PID= 2.1		Gravelly Topsoil <b>FILL</b> Slightly moist, dark brown, gravelly SAND (SP); fine to coarse sand, fine to coarse angular gravel Becomes gray at 1.2 ft.	1
2					PID= 1.9			2
3					PID= 2.0			3
4					PID= 1.9			4
5			S2		PID= 2.2			5
6					PID= 2.0			6
7					PID= 2.3			7
8					PID= 65.7			8
9					PID= 14.1			9
10			S3	B5-10-10.2 PCBs, TBT, SVOC, BTEX+H B5-13-14 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC			Moist, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit) Slightly moist, light brown, silty SAND (SM); fine to coarse sand, fine to coarse gravel Becomes red brown at 11.7 ft.	10
11								11
12								12
13							<b>ESTUARY DEPOSITS</b> Moist, dark brown, SAND (SP); trace organics, fine to medium sand Becomes gray at 13.1 ft. with sulfur-like odor	13
14								14
15		1/24/2017	S4	B5-16-17 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 4.2		Becomes wet at 15.0 ft.	15
16					PID= 1.8			16
17					PID= 2.2			17
18								18
19								19
20							Bottom of exploration at 20 ft. bgs.	20
21								21
22								22
23								23
24								24
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	 Water Level ATD		See Exploration Log Key for explanation of symbols			<b>Exploration Log</b> <b>B-5</b>
Sample Method								Sheet 1 of 1



## Snopac - 150054

## Environmental Exploration Log

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-6**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

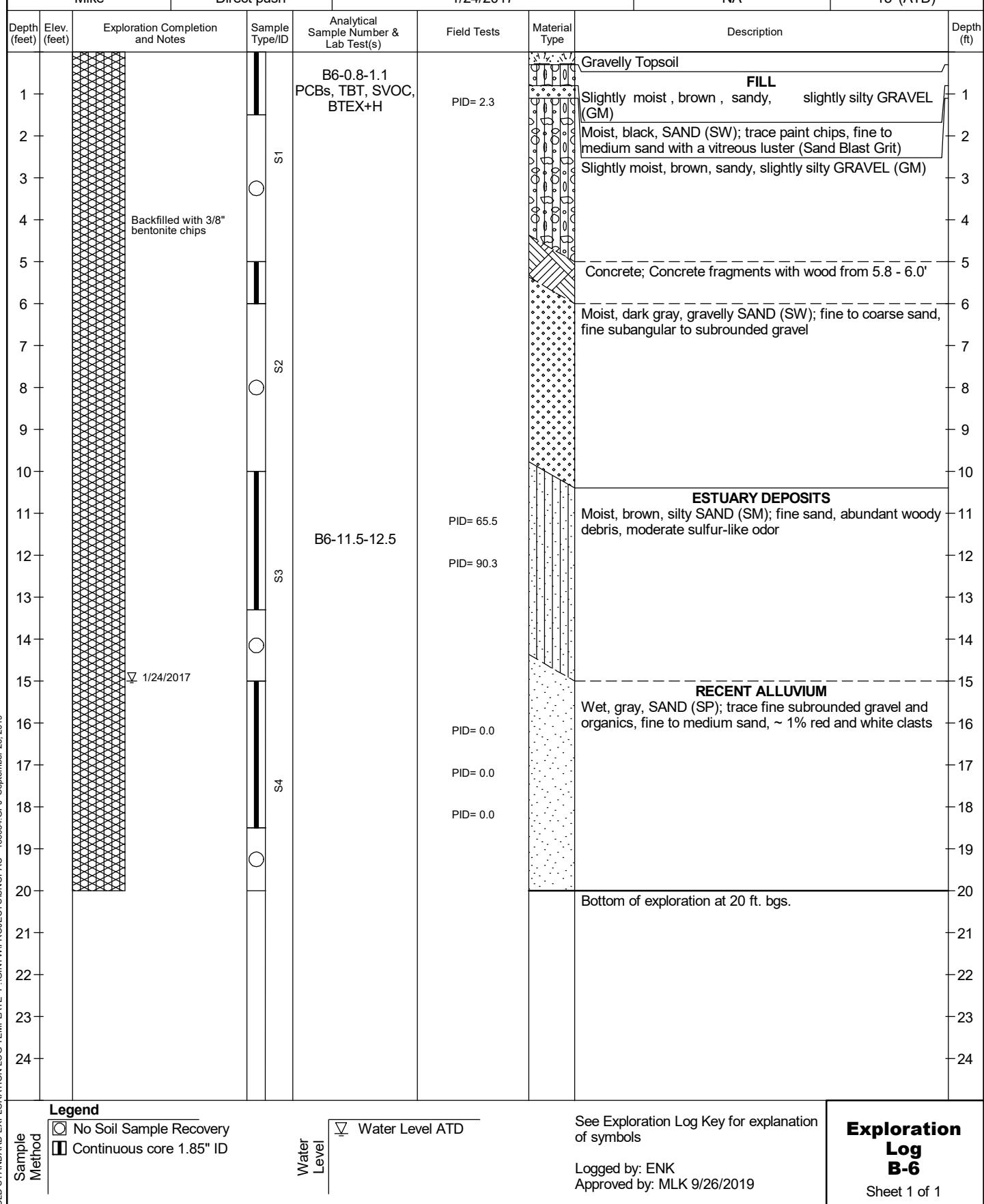
1/24/2017

Top of Casing Elev.

Depth to Water (Below GS)

NA

15' (ATD)




**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-7**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/24/2017

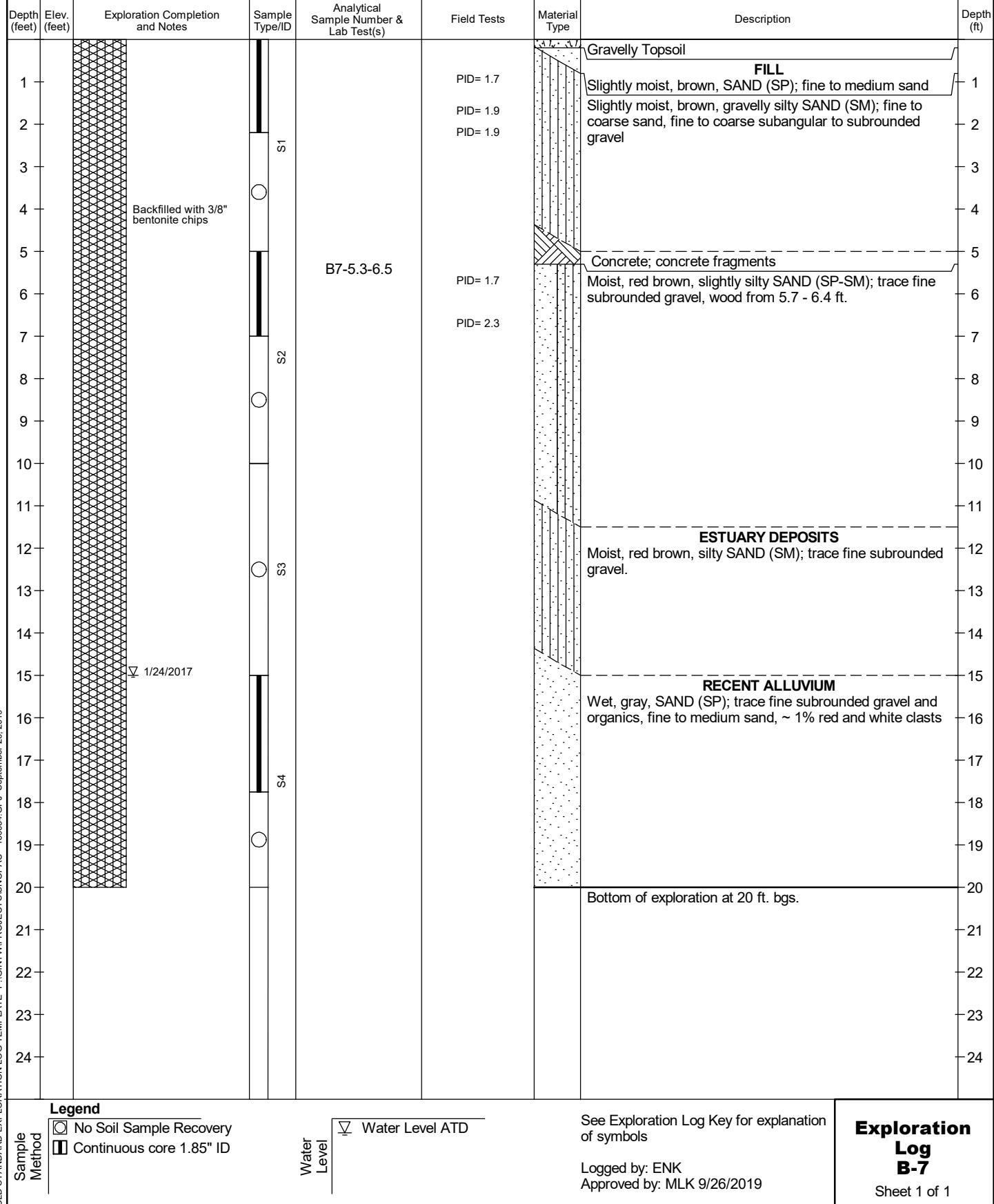
NA

Top of Casing Elev.

Depth to Water (Below GS)

NA

15' (ATD)




**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-8**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

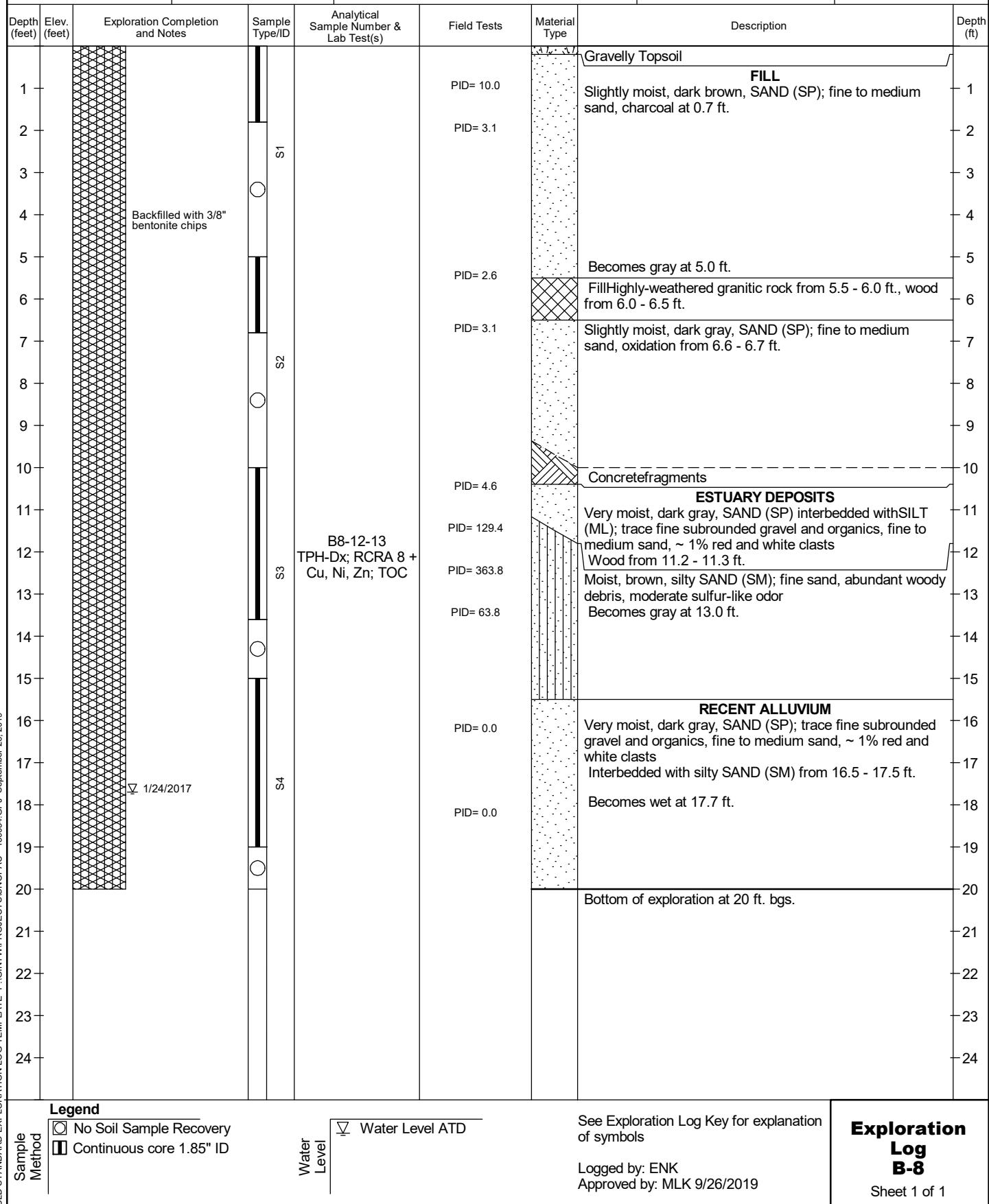
1/24/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

17.7' (ATD)





Snopac - 150054							Environmental Exploration Log			
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>B-9</b>		
5055 E Marginal Way S, Seattle, Washington										
Contractor Holt	Equipment Direct push rig		Sampling Method Percussion hammer			Ground Surface (GS) Elev. NA				
Operator Mike	Exploration Method(s) Direct push		Work Start/Completion Dates 1/24/2017			Top of Casing Elev. NA		Depth to Water (Below GS) 15' (ATD)		
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description			
1		Backfilled with 3/8" bentonite chips	S1	B9-0-1.5 TPH-Dx; RCRA 8 + Cu, Ni, Zn; PCBs; SVOC; TOC	PID= 2.1		<b>FILL</b> Dry, brown, sandy GRAVEL (GW); fine to coarse sand, fine to coarse subangular to subrounded gravel			
2										
3										
4										
5				B9-5.3-7.3	PID= 2.9		Wood Fill; solid piece of wood with a mothball-like odor			
6					PID= 6.0					
7										
8										
9										
10							Slightly moist, dark gray, slightly silty SAND (SW-SM); trace woody debris, fine to medium sand			
11				B9-11-12	PID= 2.2					
12					PID= 20.6		Wood Fill; moderate sulfur-like odor			
13					PID= 141.2		<b>ESTUARY DEPOSITS</b> Moist, brown, silty SAND (SM); fine sand, abundant woody debris, moderate sulfur-like odor			
14					PID= 62.1					
15					PID= 15.1					
16				B9-16-17 TPH-Dx; RCRA 8 + Cu, Ni, Zn; BTEX+H; TOC	PID= 2.8		<b>RECENT ALLUVIUM</b> Wet, gray, SAND (SP); trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts			
17					PID= 6771					
18				B9-18-19	PID= 320.1					
19					PID= 20.9					
20							Bottom of exploration at 20 ft. bgs.			
21										
22										
23										
24										
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	Water Level ATD			See Exploration Log Key for explanation of symbols				
Sample Method							Logged by: ENK Approved by: MLK 9/26/2019			
							<b>Exploration Log B-9</b> Sheet 1 of 1			



**Snopac - 150054**

### *Project Address & Site Specific Location*

5055 E Marginal Way S, Seattle, Washington

# Environmental Exploration Log

### *Exploration Number*

B-12



Snopac - 150054							Environmental Exploration Log			
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>B-13</b>		
5055 E Marginal Way S, Seattle, Washington										
Contractor Holt	Equipment Direct push rig		Sampling Method Percussion hammer			Ground Surface (GS) Elev. NA				
Operator Mike	Exploration Method(s) Direct push		Work Start/Completion Dates 1/25/2017			Top of Casing Elev. NA		Depth to Water (Below GS) 15' (ATD)		
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description		
								Depth (ft)		
1		Backfilled with 3/8" bentonite chips			B13-0.5-1.5	PID= 2.3		Gravel Fill		
2				s1		PID= 0.0		<b>FILL</b> Slightly moist, brown, SAND (SP); fine to medium sand		
3										
4										
5					B13-5.5-6.5 RCRA 8 + Cu, Ni, Zn; PCBs; SVOC	PID= 0.0				
6						PID= 0.0				
7						PID= 0.1				
8										
9										
10						PID= 1.4				
11						PID= 0.0				
12						PID= 0.0				
13					B13-10-11 SVOC	PID= 0.0				
14						PID= 0.0				
15						PID= 0.1				
16						PID= 0.3				
17					B13-17.5-18.5 SVOC	PID= 0.1				
18										
19										
20								Bottom of exploration at 20 ft. bgs.		
21										
22										
23										
24										
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	 Water Level ATD			See Exploration Log Key for explanation of symbols				
Sample Method							Logged by: ENK Approved by: MLK 9/26/2019	<b>Exploration Log B-13</b> Sheet 1 of 1		



Snopac - 150054							Environmental Exploration Log			
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>B-14</b>		
5055 E Marginal Way S, Seattle, Washington										
Contractor Holt	Equipment Direct push rig		Sampling Method Percussion hammer			Ground Surface (GS) Elev. NA				
Operator Mike	Exploration Method(s) Direct push		Work Start/Completion Dates 1/27/2017			Top of Casing Elev. NA		Depth to Water (Below GS) 10' (ATD)		
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description			
1					PID= 11.5		<b>FILL</b> Dry, brown, gravelly slightly silty SAND (SP-SM); fine to coarse sand, fine to coarse angular to subangular gravel			
2					PID= 1.5		Dry, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)			
3					PID= 1.7		Slightly moist, dark brown, slightly silty SAND (SP-SM); trace coarse sand, fine to medium sand, dark brown wood from 1.9 - 2.0 ft.			
4		Backfilled with 3/8" bentonite chips								
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20							Bottom of exploration at 20 ft. bgs.			
21										
22										
23										
24										
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	Water Level ATD		See Exploration Log Key for explanation of symbols			<b>Exploration Log B-14</b>		
Sample Method								Sheet 1 of 1		


**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-15**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

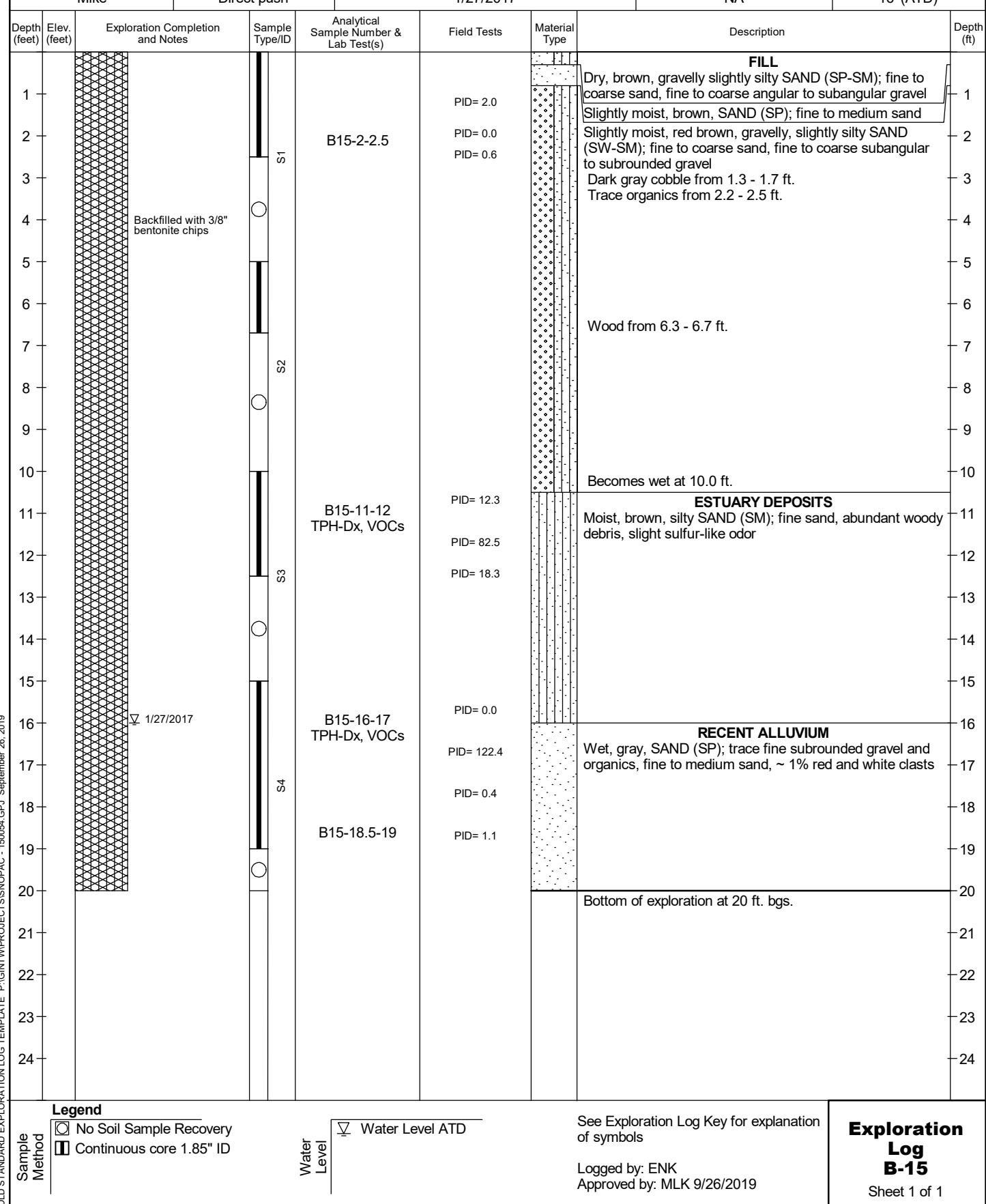
1/27/2017

Top of Casing Elev.

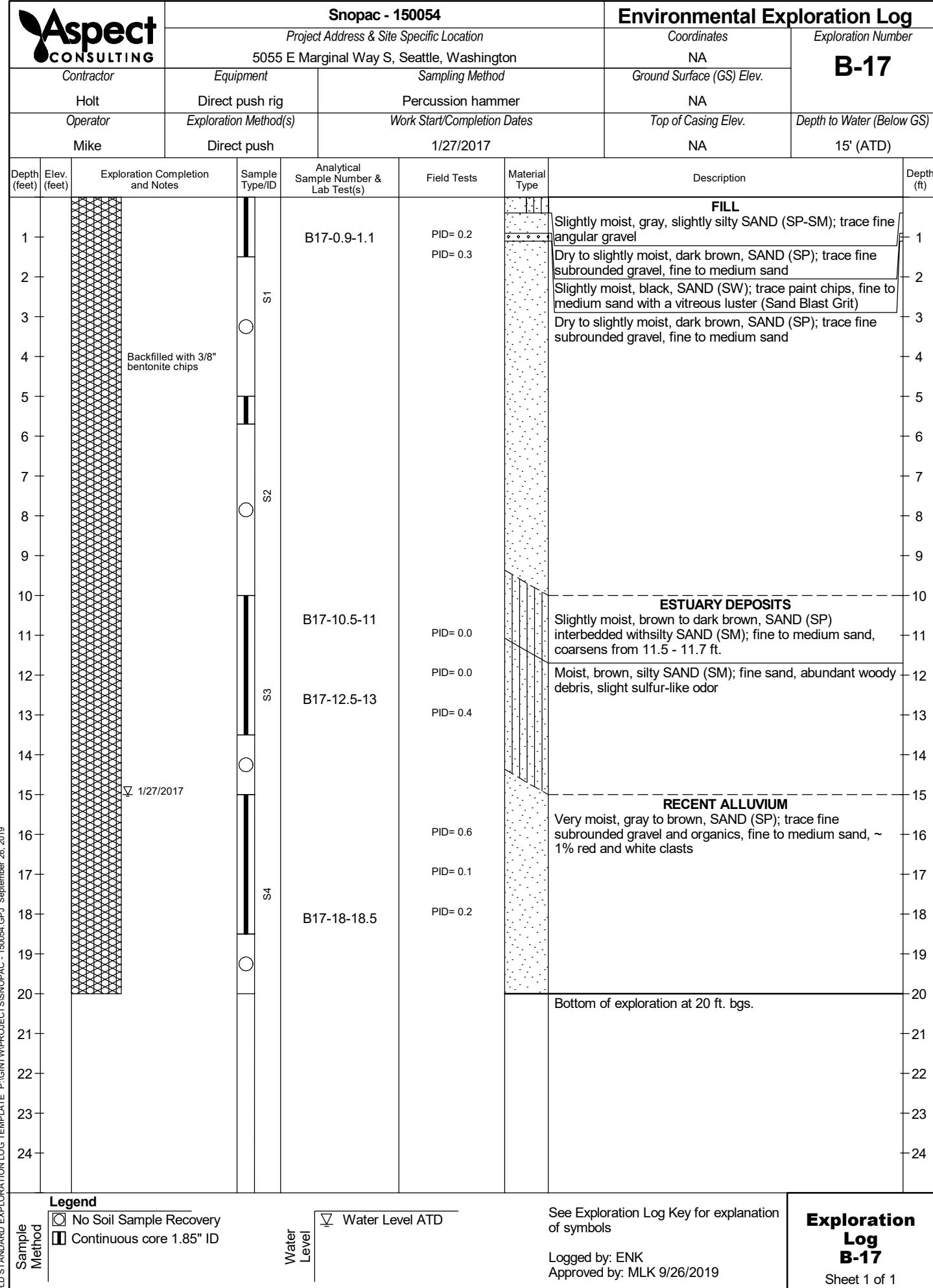
Depth to Water (Below GS)

NA

16' (ATD)



Aspect CONSULTING		Snopac - 150054				Environmental Exploration Log		
		Project Address & Site Specific Location				Coordinates NA	Exploration Number <b>B-16</b>	
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer				
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/27/2017		Top of Casing Elev. NA	Depth to Water (Below GS) 7.3' (ATD)	
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1					PID= 1.7		<b>FILL</b> Dry, brown to gray, gravelly slightly silty SAND (SP-SM); fine to coarse sand, fine to coarse angular to subangular gravel	1
2					PID= 1.5		Slightly moist, brown, SAND (SP); trace coarse sand, fine to medium sand, wood and brick	2
3								3
4		Backfilled with 3/8" bentonite chips						4
5								5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20							Bottom of exploration at 20 ft. bgs.	20
21								21
22								22
23								23
24								24
<b>Legend</b>		Water Level ATD				See Exploration Log Key for explanation of symbols		<b>Exploration Log B-16</b>
Sample Method	No Soil Sample Recovery Continuous core 1.85" ID	Water Level					Logged by: ENK Approved by: MLK 9/26/2019	Sheet 1 of 1




**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-17A**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/27/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1		Backfilled with 3/8" bentonite chips					FILL Dry, brown to gray, gravelly slightly silty SAND (SP-SM)	1
2							Bottom of exploration at 2 ft. bgs.	2
3								3
4								4
5								5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
<b>Legend</b>		See Exploration Log Key for explanation of symbols						
Sample Method		<input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID	Water Level	No Water Encountered	Logged by: ENK Approved by: MLK 9/26/2019			
							<b>Exploration Log</b> <b>B-17A</b>	Sheet 1 of 1


**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-18**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

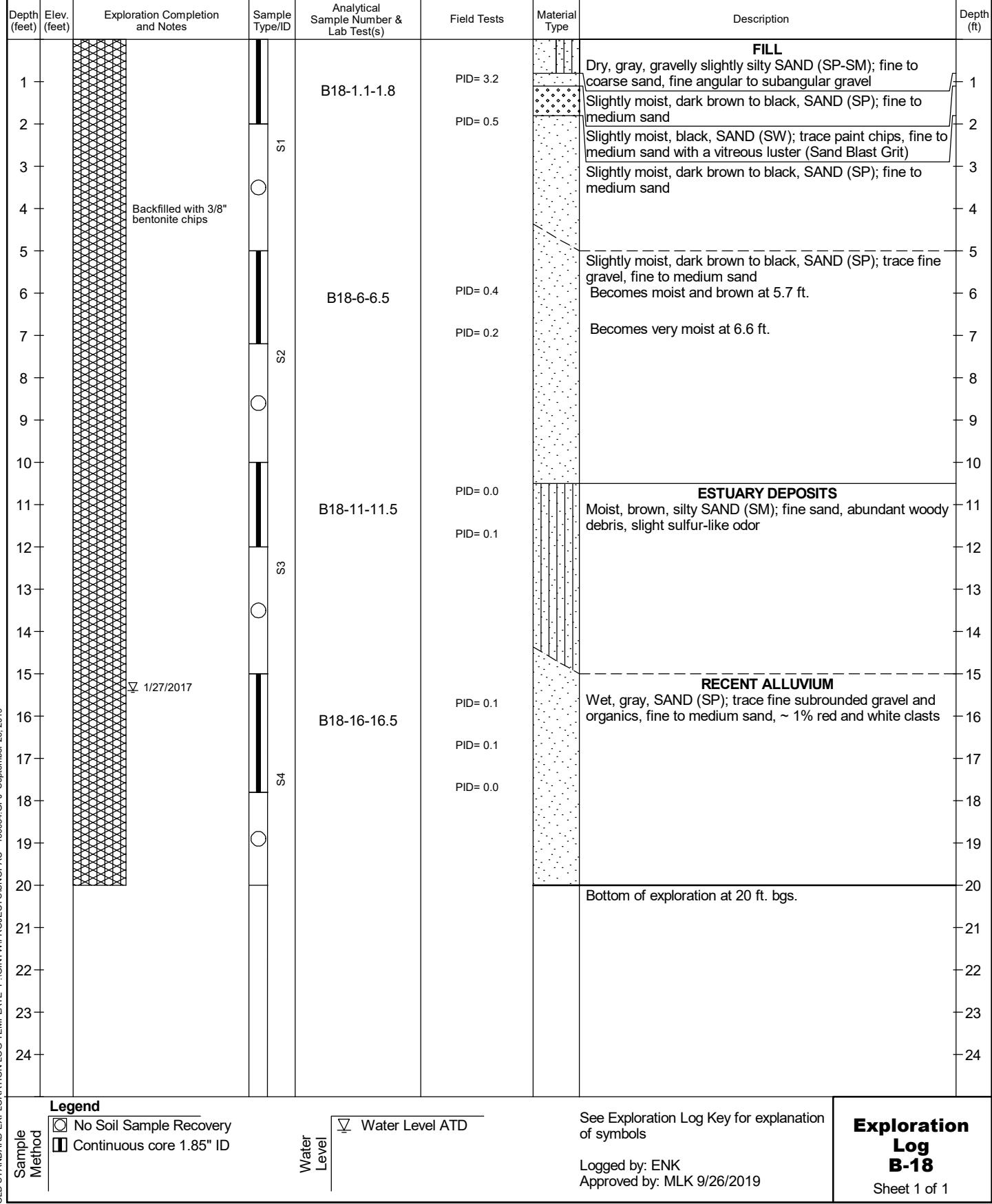
1/27/2017

Top of Casing Elev.

Depth to Water (Below GS)

NA

15.4' (ATD)





**Snopac - 150054**

### *Project Address & Site Specific Location*

5055 E Marginal Way S, Seattle, Washington

## Environmental Exploration Log

### *Exploration Number*

B-19

Contractor	Equipment	Sampling Method	Ground Surface (GS) Elev.	B-19
Holt	Direct push rig	Percussion hammer	NA	
Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev.	Depth to Water (Below GS)
Mike	Direct push	1/27/2017	NA	15' (ATD)


**Snopac - 150054**
**Environmental Exploration Log**

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**B-20**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/27/2017

Top of Casing Elev.

Depth to Water (Below GS)

NA

15' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1					PID= 12.6 PID= 1.7 PID= 1.8		<b>FILL</b> Slightly moist, brown, gravelly silty SAND (SM); fine to coarse sand, fine to coarse angular to subangular gravel Broken rock at 1.2 ft. Broken rock at 1.5 ft.	1
2								2
3								3
4		Backfilled with 3/8" bentonite chips		S1				4
5								5
6					PID= 0.0			6
7					PID= 0.0			7
8					PID= 0.0			8
9								9
10								10
11							<b>ESTUARY DEPOSITS</b> Moist, brown, silty SAND (SM); fine sand, abundant woody debris, slight sulfur-like odor	11
12								12
13								13
14								14
15		1/27/2017		S2	PID= 6.3 PID= 0.0 PID= 0.3 PID= 0.2 PID= 0.2		<b>RECENT ALLUVIUM</b> Wet, gray to brown, SAND (SP); trace fine surrounded gravel and coarse sand, trace organics, fine to medium sand, ~ 1% red and white clasts	15
16				S3	PID= 0.0			16
17				S4	PID= 0.1			17
18					PID= 0.0			18
19							Bottom of exploration at 20 ft. bgs.	19
20								20
21								21
22								22
23								23
24								24
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	Water Level ATD		See Exploration Log Key for explanation of symbols			<b>Exploration Log B-20</b>
Sample Method								Sheet 1 of 1

Snopac - 150054							Environmental Exploration Log			
Project Address & Site Specific Location 5055 E Marginal Way S, Seattle, Washington							Coordinates NA	Exploration Number <b>B-9A</b>		
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer			Ground Surface (GS) Elev. NA			
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/24/2017			Top of Casing Elev. NA	Depth to Water (Below GS) No Water Encountered		
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description		Depth (ft)
1								No recovery; rock in shoe		1
2		Backfilled with 3/8" bentonite chips		○	5					2
3										3
4								Refusal at 4 ft. Bottom of exploration at 4 ft. bgs.		4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
21										21
22										22
23										23
24										24
Sample Method		Legend		Water Level			See Exploration Log Key for explanation of symbols		<b>Exploration Log B-9A</b>	
		<input type="checkbox"/> No Soil Sample Recovery		No Water Encountered			Logged by: ENK Approved by: MLK 9/26/2019			



Snopac - 150054

### **Project Address & Site Specific Location**

5055 E Marginal Way S, Seattle, Washington

# **Environmental Exploration Log**

### *Exploration Number*

B-9B



**Snopac - 150054**

Project Address & Site Specific Location

5055 E Marginal Way S, Seattle, Washington

## **Environmental Exploration Log**

Coordinates

NA

Exploration Number

**B-9C**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/24/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1							<b>FILL</b> Dry, brown, sandy GRAVEL (GP); fine to coarse sand, fine to coarse angular to subangular gravel	1
2							No recovery	2
3								3
4								4
5							Refusal at 5.5 ft.	5
6							Bottom of exploration at 5.5 ft. bgs.	6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
<b>Legend</b>						See Exploration Log Key for explanation of symbols		<b>Exploration Log B-9C</b>
Sample Method		<input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID	Water Level	No Water Encountered				Sheet 1 of 1



**Snopac - 150054**

Project Address & Site Specific Location

5055 E Marginal Way S, Seattle, Washington

### Environmental Exploration Log

Coordinates

NA

Exploration Number

**B-9D**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/24/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1							No recovery; rock in shoe	1
2								2
3								3
4							Refusal at 4.5 ft.	4
5							Bottom of exploration at 4.5 ft. bgs.	5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
<b>Legend</b>		No Soil Sample Recovery		Water Level		No Water Encountered		See Exploration Log Key for explanation of symbols
Sample Method								Logged by: ENK Approved by: MLK 9/26/2019
								<b>Exploration Log B-9D</b>
								Sheet 1 of 1



Aspect CONSULTING		Snopac - 150054				Monitoring Well Log	
Contractor		Project Address & Site Specific Location			Coordinates		Exploration Number <b>MW-2</b>
Holt		Equipment		Sampling Method		Ground Surface (GS) Elev.	
Operator		Exploration Method(s)		Work Start/Completion Dates		Top of Casing Elev.	Depth to Water (Below GS)
Mike		Direct push		1/23/2017		NA	7.34' (Static)
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type
							Description
							Depth (ft)
1		Flush-mount monument in concrete Compression plug					<b>FILL</b>
2		3/8" bentonite chips		s1			Moist, dark brown, SAND (SP); trace fine angular gravel, fine to coarse sand
3		10/20 sand					Slightly moist, brown, gravelly silty SAND (SM); trace organics, fine to coarse sand, fine angular to subangular gravel
4							
5							
6							
7		TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC				PID= 2.2 PID= 3.9 PID= 38.7	
8							
9							
10							
11		2" Sch40 PVC pre-pack screen 0.010" slot				PID= 151.9 PID= 22.0 PID= 21.2	
12							
13		MW2-10; MW2-10-11 TPH-Dx; RCRA 8 + Cu, Ni, Zn; PCBs; SVOCs, TOC					
14							
15		TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC					
16		1/23/2017 Threaded cap					
17		3/8" bentonite chips					
18		MW2-15-16 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC		s4			
19							
20							Bottom of exploration at 20 ft. bgs.
21							
22							
23							
24							
<b>Legend</b>						See Exploration Log Key for explanation of symbols	
Sample Method	No Soil Sample Recovery	Water Level	Static Water Level			Logged by: ENK Approved by: MLK 9/26/2019	
	Continuous core 1.85" ID		Water Level ATD				
						<b>Exploration Log MW-2</b>	
						Sheet 1 of 1	



**Snopac - 150054**

*Project Address & Site Specific Location*

## Monitoring Well Log

## *Coordinates*

## *Exploration Number*

MW-3

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**Contractor**

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## *Equipment*

## Sampling Method

### Ground Surface (GS) Elev.

Ho

#### Direct push rig

#### Percussion hammer

NA

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Operat

### Exploration Methods

#### Work Start/Completion Dates

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*Top of Casing Elev*

3/31

### Exploration Methods

CRM Start Completion Date

Top of Existing Env.

### **Water (Boil)**

Mik

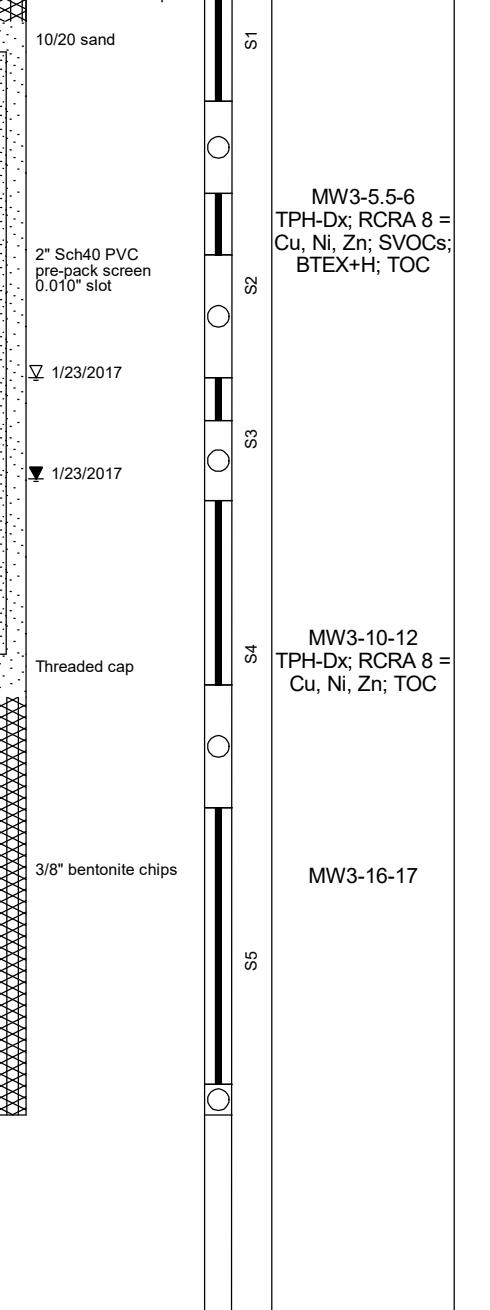
## Direct push

1/23/2017

NA

9.65' (Static)

Exploration Log Key for explanation of symbols

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush-mount monument in concrete Compression plug  3/8" bentonite chips  10/20 sand  2" Sch40 PVC pre-pack screen 0.010" slot	S1	MW3-1-2 TPH-Dx; RCRA 8 = Cu, Ni, Zn; SVOCs; BTEX+H; TOC	PID= 0.8 PID= 5.4 PID= 3.0  PID= 7.0		<b>FILL</b> Slightly moist, brown, slightly silty SAND (SP-SM); trace wood with mothball-like odor, trace coarse angular gravel, trace coal and glass shards, fine to medium sand  Wood Fill; suspected piling, moderate mothball-like odor	1
1			S2	MW3-5.5-6 TPH-Dx; RCRA 8 = Cu, Ni, Zn; SVOCs; BTEX+H; TOC	PID= 8.7		Slightly moist, brown, gravelly SAND (SP); trace organics, fine to coarse sand, fine to coarse angular to subangular gravel, wood with mothball-like odor from 5.0 - 5.5 ft.	2
2			S3		PID= 2.2		Very moist, brown, silty SAND (SM); fine to coarse sand	3
3			S4	MW3-10-12 TPH-Dx; RCRA 8 = Cu, Ni, Zn; TOC	PID= 2.2 PID= 3.0  PID= 5.8 PID= 49.9		Wet, brown to red, slightly gravelly silty SAND (SM); fine to medium sand, fine gravel  Becomes brown at 10.0 ft. Becomes brown to dark gray at 10.5 ft.	4
4			S5	MW3-16-17	PID= 4.7  PID= 2.7  PID= 2.5  PID= 2.8		<b>ESTUARY DEPOSITS</b> Wet, brown to dark gray, slightly gravelly silty SAND (SM); fine to medium sand, fine gravel. Wood from 12.2 - 12.5 ft.  <b>RECENT ALLUVIUM</b> Very moist, brown, sandy SILT (ML); trace wood, fine sand	5
5							Wet, gray, SAND (SP); trace coarse sand and fine subrounded gravel, trace organics, fine to medium sand, ~ 1% red and white clasts	6
6								12
7								13
8								14
9								15
10								16
11								17
12								18
13								19
14								20
15								21
16								22
17								23
18								24
19								
20							Bottom of exploration at 20 ft. bgs.	
21								
22								
23								
24								

Legend

<input type="checkbox"/> No Soil Sample Recovery	<input checked="" type="checkbox"/> Continuous core 1.85" ID
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Water Level

 Static Water Level
 Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: ENK  
Approved by: MLK 9/26/2019

**Exploration Log MW-3**



Snopac - 150054							Monitoring Well Log	
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>MW-4</b>
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer				
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/23/2017			Top of Casing Elev. NA	Depth to Water (Below GS) 8.86' (Static)
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description
1		Flush-mount monument in concrete Compression plug		S1	MW4-0-1	PID= 2.5 PID= 2.8	FILL	Dry, dark brown to black, slightly gravelly silty SAND (SM); fine gravel, red brick at 0.5 ft.
2		3/8" bentonite chips		S2				Dry, brown, gravelly SAND (SW); fine to coarse sand, fine to coarse gravel
3		10/20 sand		S3				
4		2" Sch40 PVC pre-pack screen 0.010" slot ▼ 1/23/2017		S4	MW4-7-8 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 2.5 PID= 3.2		Dry, dark brown to black, slightly gravelly silty SAND (SM); fine gravel, fine to medium sand
5								Dry, light gray to black, sandy CLAY (CL)
6								Moist, brown, slightly gravelly SAND (SP); fine to medium sand, fine gravel
7								Wood from 6.9 - 7.0 ft.
8								
9								
10								
11								
12								
13								
14		Threaded cap						
15								
16								
17		3/8" bentonite chips						
18								
19								
20								Bottom of exploration at 20 ft. bgs.
21								
22								
23								
24								
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	 Static Water Level		See Exploration Log Key for explanation of symbols			<b>Exploration Log MW-4</b> Sheet 1 of 1
Sample Method								


**Snopac - 150054**

Project Address & Site Specific Location  
5055 E Marginal Way S, Seattle, Washington

**Monitoring Well Log**

Coordinates

NA

Exploration Number

**MW-4A**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

1/23/2017

Top of Casing Elev.

NA

Depth to Water (Below GS)

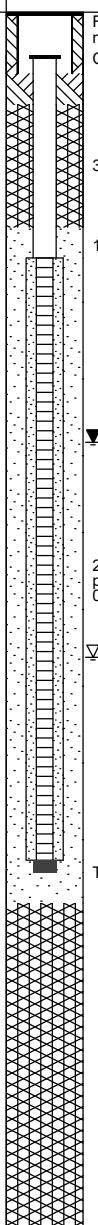
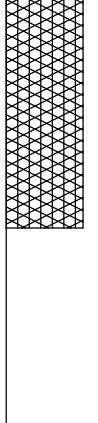
No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)			
1							Dry, dark brown, gravelly SAND (SW); fine to coarse sand, fine gravel, red brick in shoe No recovery	1			
2								2			
3								3			
4								4			
5								5			
6								6			
7								7			
8								8			
9								9			
10							Refusal at 10 ft. Bottom of exploration at 10 ft. bgs.	10			
11								11			
12								12			
13								13			
14								14			
15								15			
16								16			
17								17			
18								18			
19								19			
20								20			
21								21			
22								22			
23								23			
24								24			
Legend											
Sample Method		<input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID	Water Level	No Water Encountered	See Exploration Log Key for explanation of symbols						
					Logged by: ENK						
					Approved by: MLK 9/26/2019						
		<b>Exploration Log MW-4A</b>									
		Sheet 1 of 1									

Aspect CONSULTING		Snopac - 150054				Monitoring Well Log					
		Project Address & Site Specific Location			Coordinates	Exploration Number					
Contractor		Equipment	Sampling Method		Ground Surface (GS) Elev.	MW-5					
Holt		Direct push rig	Percussion hammer		NA	NA					
Operator		Exploration Method(s)		Work Start/Completion Dates		Top of Casing Elev.	Depth to Water (Below GS)				
Mike		Direct push		1/25/2017		NA	7.4' (Static)				
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description				
1		Flush-mount monument in concrete Compression plug			PID= 0.4		FILL Dry, gray to brown, slightly silty SAND (SW-SM); trace fine gravel, fine to coarse sand, becomes dark brown at 0.6 ft.				
2		3/8" bentonite chips	S1		PID= 0.3		Dry, brown SAND (SP); fine to medium sand, laminar bedding and oxidation, light brown CL from 1.4 - 1.5 ft., broken cobble (metamorphic) from 6.6 - 6.7 ft.				
3		10/20 sand									
4											
5											
6											
7							Becomes moist and dark brown at 5.5 ft.				
8											
9											
10											
11											
12											
13											
14		Threaded cap									
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
Legend		See Exploration Log Key for explanation of symbols									
Sample Method	No Soil Sample Recovery	Water Level	Static Water Level	Exploration Log Key for explanation of symbols							
	Continuous core 1.85" ID		Water Level ATD	Logged by: ENK Approved by: MLK 9/26/2019							
OLD STANDARD EXPLORATION LOG TEMPLATE P:\\GINTW\\PROJECTS\\SNOPAC - 150054.GPJ   September 26, 2019		Exploration Log MW-5									
		Sheet 1 of 1									

Aspect CONSULTING		Snopac - 150054				Monitoring Well Log	
		Project Address & Site Specific Location			Coordinates	Exploration Number	
Contractor		Equipment	Sampling Method		Ground Surface (GS) Elev.	MW-6	
Holt		Direct push rig	Percussion hammer		NA	NA	
Operator		Exploration Method(s)		Work Start/Completion Dates		Top of Casing Elev.	Depth to Water (Below GS)
Mike		Direct push		1/25/2017		NA	7.7' (Static)
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description
1		Flush-mount monument in concrete Compression plug			PID= 0.0		<b>FILL</b> Slightly moist, dark brown to gray, gravelly slightly silty SAND (SP-SM); fine to coarse sand, fine to coarse subangular to subrounded gravel
2		3/8" bentonite chips	s1	MW6-SBG-2-2.5	PID= 0.1		Dry, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)
3		10/20 sand			PID= 0.0		Moist, brown, SAND (SP); fine to medium sand
4							
5				MW6-SBG-5.2-5.4 PCBs, TBT, SVOCs, BTEX+H	PID= 0.0		Slightly moist, brown to black, gravelly slightly silty SAND (SW-SM); fine to coarse sand, fine to coarse subrounded gravel
6				MW6-7-8 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 0.0		Dry, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)
7							Moist to very moist, brown, SAND (SP); fine to medium sand Becomes gray at 7.5 ft.
8							
9							
10							<b>ESTUARY DEPOSITS</b> Very moist, dark brown, silty SAND (SM); fine sand, abundant woody debris, slight sulfur-like odor
11							
12							
13							
14		Threaded cap					<b>RECENT ALLUVIUM</b> Wet, gray, SAND (SP); trace coarse sand and fine subrounded gravel, trace organics, fine to medium sand, ~ 1% red and white clasts
15		▽ 1/26/2017					
16							
17							
18							
19							
20							Bottom of exploration at 20 ft. bgs.
21							
22							
23							
24							
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	▽ Static Water Level ▽▽ Water Level ATD	See Exploration Log Key for explanation of symbols			<b>Exploration Log MW-6</b>
Sample Method				Logged by: ENK Approved by: MLK 9/26/2019			Sheet 1 of 1



Snopac - 150054							Monitoring Well Log	
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>MW-7</b>
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer				
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/26/2017			Top of Casing Elev. NA	Depth to Water (Below GS) 7' (Static)
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description
1		Flush-mount monument in concrete Compression plug			MW7-3-4	PID= 0.0		<b>FILL</b> Dry, brown to gray, gravelly SAND (SW); fine to coarse sand, fine to coarse subangular to subrounded gravel, becomes brown at 0.6 ft.
2		3/8" bentonite chips		S1		PID= 0.0		Becomes dark brown Red brick from 1.7 - 1.8 ft.
3		10/20 sand				PID= 0.0		Dry, brown, SAND (SP); trace fine subrounded gravel, fine to medium sand
4		1/26/2017				PID= 0.0		
5		2" Sch40 PVC pre-pack screen 0.010" slot				PID= 0.0		Dry, brown, slightly gravelly SAND (SW); fine to coarse sand, fine subrounded gravel
6		1/26/2017				PID= 0.0		Dry, black, SAND (SW); trace paint chips, fine to medium sand with a vitreous luster (Sand Blast Grit)
7		2" Sch40 PVC pre-pack screen 0.010" slot				PID= 0.0		Dry, brown, SAND (SP); fine to medium sand, laminar bedding of silty sand throughout
8		1/26/2017				PID= 0.0		Becomes moist at 5.6 ft. Becomes gray at 7.1 ft.
9		2" Sch40 PVC pre-pack screen 0.010" slot				PID= 0.1		
10		1/26/2017				PID= 0.1		Becomes very moist at 10.0 ft. Becomes wet at 10.5 ft.
11		Threaded cap			MW7-10-11 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC MW7-13-14	PID= 0.0		
12		1/26/2017				PID= 0.1		<b>ESTUARY DEPOSITS</b> Very moist, dark brown, silty SAND (SM); fine sand, abundant woody debris, moderate sulfur-like odor
13		1/26/2017				PID= 0.0		
14		Threaded cap				PID= 0.0		
15		1/26/2017			MW7-17-18 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 0.0		<b>RECENT ALLUVIUM</b> Wet, gray, SAND (SP); trace coarse sand and fine subrounded gravel, trace organics, fine to medium sand, clayey sand interbeds from 15.0 - 16.3 ft., ~ 1% red and white clasts
16		1/26/2017				PID= 0.1		
17		1/26/2017				PID= 0.0		
18		1/26/2017				PID= 0.1		
19		1/26/2017				PID= 0.0		
20		1/26/2017						Bottom of exploration at 20 ft. bgs.
21		1/26/2017						
22		1/26/2017						
23		1/26/2017						
24		1/26/2017						
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		<b>Water Level</b>  		See Exploration Log Key for explanation of symbols  Logged by: ENK Approved by: MLK 9/26/2019				<b>Exploration Log MW-7</b> Sheet 1 of 1



		Snopac - 150054				Monitoring Well Log	
		Project Address & Site Specific Location				Coordinates	Exploration Number <b>MW-8</b>
Contractor		Equipment		Sampling Method		NA	
Holt		Direct push rig		Percussion hammer		Ground Surface (GS) Elev. NA	
Operator		Exploration Method(s)		Work Start/Completion Dates		Top of Casing Elev. NA	Depth to Water (Below GS) 9.7' (Static)
Mike		Direct push		1/25/2017			
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type
		Flush-mount monument in concrete Compression plug		S1		PID= 0.0	Topsoil
		3/8" bentonite chips		S2	MW8-5-6 TPH-Dx; RCRA 8 + Cu, Ni, Zn; PCBs; SVOCs; BTEX+H, TOC	PID= 0.0	<b>FILL</b> Slightly moist, brown, sandy slightly silty GRAVEL (GP-GM); fine to coarse gravel
5		1/25/2017		S3		PID= 0.0	Moist, dark gray, SAND (SP); fine to medium sand Becomes brown with oxidation bands at 2.3 ft.
10		10/20 sand		S4	MW8-10.7-11.8	PID= 0.0	Becomes gray and predominatley medium sand at 5.0 ft. Trace gravel from 5.8 - 6.6 ft.
15		1/25/2017 2" Sch40 PVC pre-pack screen 0.010" slot		S5	MW8-15.5-16.5 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 0.0	Becomes dark gray with trace coarse sand from 6.6 - 7.8 ft.
20						PID= 0.0	
25		Threaded cap			MW8-20-21	PID= 0.0	<b>ESTUARY DEPOSITS</b> Moist, dark gray, SAND (SP); trace shell fragments from 10.7 - 11.8 ft., fine to medium sand, ~3% white clasts
						PID= 0.0	Becomes brown at 15.0 ft.
						PID= 0.0	<b>RECENT ALLUVIUM</b> Slightly moist to dry, gray, SAND (SP) interbedded with SILT (ML); fine to medium sand
						PID= 0.0	
							Bottom of exploration at 25 ft. bgs.
Sample Method		Legend		Water Level		See Exploration Log Key for explanation of symbols	
<input type="checkbox"/> No Soil Sample Recovery		<input checked="" type="checkbox"/> Static Water Level		See Exploration Log Key for explanation of symbols		<b>Exploration Log MW-8</b>	
<input checked="" type="checkbox"/> Continuous core 1.85" ID		<input type="checkbox"/> Water Level ATD		Logged by: ENK Approved by: MLK 9/26/2019		Sheet 1 of 1	

Aspect CONSULTING		Snopac - 150054				Monitoring Well Log		
		Project Address & Site Specific Location 5055 E Marginal Way S, Seattle, Washington			Coordinates NA		Exploration Number <b>MW-9</b>	
Contractor Holt	Equipment Direct push rig	Sampling Method Percussion hammer		Ground Surface (GS) Elev. NA	Exploration Number <b>MW-9</b>			
		Exploration Method(s) Direct push				Top of Casing Elev. NA	Depth to Water (Below GS) 7.4' (Static)	
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1		Flush-mount monument in concrete Compression plug			PID= 0.0	Topsoil		
2		3/8" bentonite chips	○		PID= 0.0	FILL	Slightly moist, brown, SAND (SP); fine to medium sand, fine gravel from 0.6 - 0.8 ft.	1
3		10/20 sand	○				Wood from 2.1 - 2.3 ft.	2
4			○					3
5			○				Trace coarse sand from 5.0 - 8.0 ft.	4
6			○		PID= 0.0			5
7		▼ 1/25/2017	○	MW9-5-6 TPH-Dx; RCRA 8 + Cu, Ni, Zn; PCBs; SVOCs; BTEX+H; TOC	PID= 0.0			6
8			○		PID= 0.0			7
9		2" Sch40 PVC pre-pack screen 0.010" slot	○		PID= 0.0			8
10			○		PID= 0.0			9
11			○		PID= 0.0	Becomes gray at 10.8 ft.		10
12			○		PID= 0.0	ESTUARY DEPOSITS		11
13			○		PID= 0.0	Very moist, dark brown, silty SAND (SM); fine sand, abundant woody debris, slight sulfur-like odor		12
14		Threaded cap	○		PID= 0.0			13
15		▼ 1/25/2017	○		PID= 0.0	RECENT ALLUVIUM		14
16			○		PID= 0.0	Moist, gray, SAND (SP); trace coarse sand and fine surrounded gravel, trace organics, fine to medium sand, ~ 1% red and white clasts		15
17			○		PID= 0.0	Becomes wet at 15.5 ft.		16
18			○		PID= 0.0			17
19			○		PID= 0.0			18
20			○		PID= 0.0	Bottom of exploration at 20 ft. bgs.		19
21								20
22								21
23								22
24								23
								24
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		<b>Water Level</b>  Static Water Level  Water Level ATD		See Exploration Log Key for explanation of symbols			<b>Exploration Log MW-9</b> Sheet 1 of 1	
OLD STANDARD EXPLORATION LOG TEMPLATE P:\\GINT\\PROJECTS\\SNOPAC - 150054.GPJ   September 26, 2019		Logged by: ENK Approved by: MLK 9/26/2019						



Snopac - 150054							Monitoring Well Log	
Project Address & Site Specific Location							Coordinates NA	Exploration Number <b>MW-10</b>
Contractor Holt		Equipment Direct push rig		Sampling Method Percussion hammer				
Operator Mike		Exploration Method(s) Direct push		Work Start/Completion Dates 1/25/2017			Top of Casing Elev. NA	Depth to Water (Below GS) 9.75' (Static)
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	
		Flush-mount monument in concrete Compression plug			PID= 0.0		<b>FILL</b> Slightly moist, dark brown, gravelly slightly silty SAND (SP-SM); fine to coarse sand, fine subangular to subrounded gravel, red brick fragments from 1.8 - 1.9 ft.	
5		3/8" bentonite chips	S1		PID= 0.0		Moist, dark brown, SAND (SP); fine to medium sand	
10		1/25/2017	S2	MW10-5-6 TPH-Dx; RCRA 8 + Cu, Ni, Zn; PCBs; SVOCs; BTEX+H; TOC	PID= 0.0		Trace fine subangular gravel from 5.5 - 5.7 ft. Coarsening sand from 6.4 - 6.9 ft. Becomes very moist, gray, fine sand	
15		10/20 sand	S3	MW10-11-12	PID= 0.0		Becomes fine to medium sand <b>ESTUARY DEPOSITS</b> Moist, brown, silty SAND (SM); fine sand, abundant woody debris, slight sulfur-like odor	
20		1/25/2017	S4	MW10-15.5-16.5 TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 0.0		<b>RECENT ALLUVIUM</b> Very moist, gray, SAND (SP); trace mica, trace fine subrounded gravel and organics, fine to medium sand, ~ 1% red and white clasts Fine sand interbeds from 15.5 - 16.3 ft.	
25		2" Sch40 PVC pre-pack screen 0.010" slot	S5	MW10-24-25	PID= 0.0		Bottom of exploration at 25 ft. bgs.	
		Threaded cap						
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		<b>Water Level</b>  	See Exploration Log Key for explanation of symbols Logged by: ENK Approved by: MLK 9/26/2019					<b>Exploration Log MW-10</b> Sheet 1 of 1
<b>Sample Method</b>								

Aspect CONSULTING		Snopac - 150054				Monitoring Well Log					
		Project Address & Site Specific Location			Coordinates	Exploration Number					
Contractor		Equipment	Sampling Method		Ground Surface (GS) Elev.	MW-11					
Holt		Direct push rig	Percussion hammer		NA	NA					
Operator		Exploration Method(s)		Work Start/Completion Dates		Top of Casing Elev.	Depth to Water (Below GS)				
Mike		Direct push		1/26/2017		NA	9' (Static)				
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description				
							Depth (ft)				
1		Flush-mount monument in concrete Compression plug			PID= 0.0	Topsoil					
2		3/8" bentonite chips	S1		PID= 0.0	FILL					
3		10/20 sand			PID= 0.0	Slightly moist, brown to dark brown, gravelly slightly silty SAND (SP-SM); fine to coarse sand, fine to coarse angular to subangular gravel					
4					PID= 0.0						
5					PID= 0.0	Concrete at 4.5 ft. Glass shard at 4.7 ft.					
6					PID= 0.0						
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
Legend		See Exploration Log Key for explanation of symbols									
Sample Method	No Soil Sample Recovery	Water Level	Static Water Level	Exploration Log Key for explanation of symbols							
	Continuous core 1.85" ID		Water Level ATD	Logged by: ENK Approved by: MLK 9/26/2019							
OLD STANDARD EXPLORATION LOG TEMPLATE P:\\GINTW\\PROJECTS\\SNOPAC - 150054.GPJ   September 26, 2019		Exploration Log MW-11									
		Sheet 1 of 1									

Aspect CONSULTING		Snopac - 150054				Monitoring Well Log				
		Project Address & Site Specific Location			Coordinates		Exploration Number <b>MW-12</b>			
Contractor Holt	Equipment	Sampling Method		Ground Surface (GS) Elev.	NA					
		Percussion hammer			NA					
Operator Mike		Exploration Method(s)		Work Start/Completion Dates		Top of Casing Elev.	Depth to Water (Below GS)			
Direct push		1/26/2017		NA		7.7' (Static)				
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description		Depth (ft)
1		Flush-mount monument in concrete Compression plug			MW12-2-3	PID= 0.1	Topsoil  <b>FILL</b> Dry, light brown, gravelly slightly silty SAND (SW-SM); fine to coarse sand, fine to coarse subangular to rounded gravel	1		
2		3/8" bentonite chips		S1				2		
3		10/20 sand		O1				3		
4		4			MW12-6-7	PID= 0.2		4		
5		5				PID= 0.1		5		
6		6				PID= 0.0		6		
7		7			MW12-11-12	PID= 0.0		7		
8		8		S2		PID= 0.0		8		
9		9		O2		PID= 0.0		9		
10		10			TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 0.0		10		
11		11				PID= 0.0		11		
12		12				PID= 0.0		12		
13		13			S3	PID= 0.0		13		
14		14				PID= 0.0		14		
15		15				PID= 0.0		15		
16		16			MW12-17.5-18.5	PID= 0.0		16		
17		17				PID= 0.0		17		
18		18		S4		PID= 0.1		18		
19		19		O4	TPH-Dx; RCRA 8 + Cu, Ni, Zn; TOC	PID= 0.0		19		
20		20				PID= 0.0		20		
21						PID= 0.0				
22						PID= 0.0				
23						PID= 0.0				
24						PID= 0.0				
Legend		Water Level		See Exploration Log Key for explanation of symbols		Exploration Log <b>MW-12</b>				
Sample Method	No Soil Sample Recovery Continuous core 1.85" ID	Water Level	Static Water Level Water Level ATD	Logged by: ENK Approved by: MLK 9/26/2019		Sheet 1 of 1				





## Snopac - 150054

## Environmental Exploration Log

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**SB-02**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

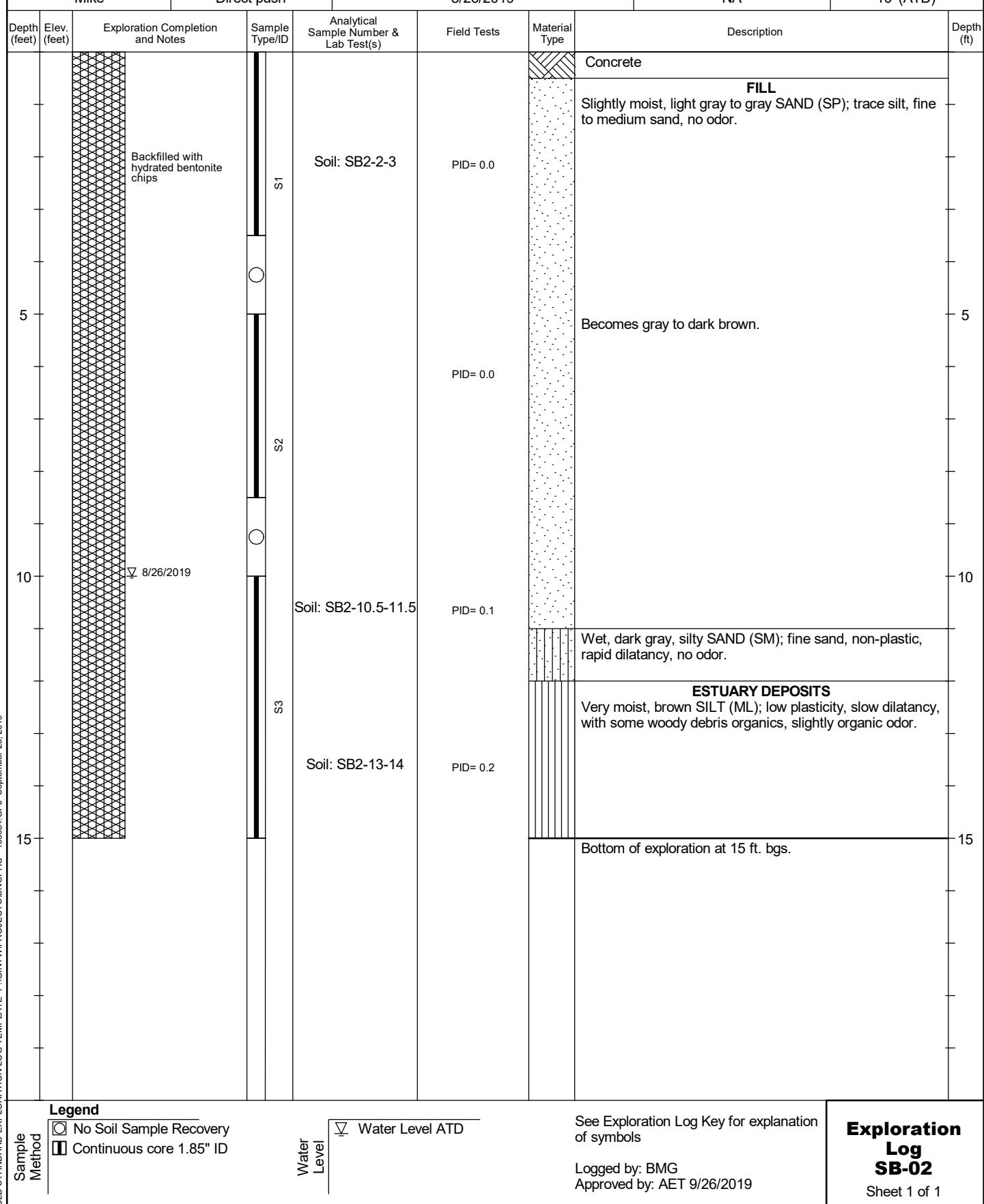
8/26/2019

Top of Casing Elev.

Depth to Water (Below GS)

NA

10' (ATD)





## Snopac - 150054

## Environmental Exploration Log

Project Address &amp; Site Specific Location

5055 E Marginal Way S, Seattle, Washington

Coordinates

NA

Exploration Number

**SB-03**

Contractor

Holt

Equipment

Direct push rig

Sampling Method

Percussion hammer

Ground Surface (GS) Elev.

NA

Operator

Mike

Exploration Method(s)

Direct push

Work Start/Completion Dates

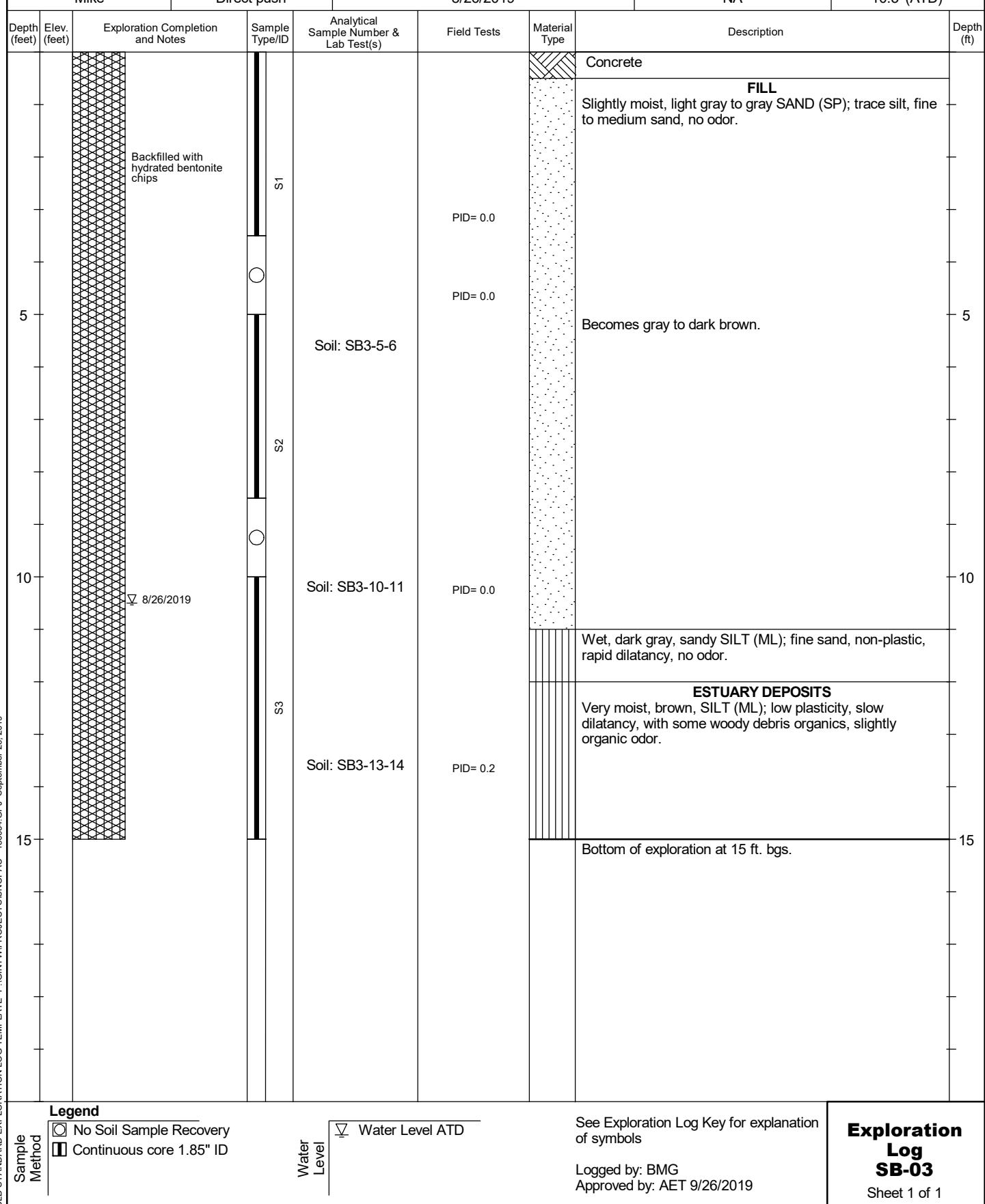
8/26/2019

Top of Casing Elev.

NA

Depth to Water (Below GS)

10.5' (ATD)





Snopac - 150054							Environmental Exploration Log		
Project Address & Site Specific Location							Coordinates	Exploration Number <b>SB-04</b>	
5055 E Marginal Way S, Seattle, Washington							NA		
Contractor	Equipment		Sampling Method			Ground Surface (GS) Elev.			
Holt	Direct push rig		Percussion hammer			NA			
Operator	Exploration Method(s)			Work Start/Completion Dates			Top of Casing Elev.	Depth to Water (Below GS)	
Mike	Direct push			8/26/2019			NA	10.5' (ATD)	
Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description		
		Backfilled with hydrated bentonite chips	S1	Soil: SB4-2-3	PID= 0.0	Concrete			
5	5		S2	Soil: SB4-8-9	PID= 0.1	FILL Slightly moist, light gray to gray SAND (SP); trace silt, fine to medium sand, no odor.			
10	10		S3	Soil: SB4-13-14	PID= 0.0	Becomes gray to dark brown.			
15	15	8/26/2019			PID= 0.2	Wet, dark gray, sandy silty SAND (SM); fine sand, non-plastic, rapid dilatancy, no odor.			
						ESTUARY DEPOSITS Very moist, brown, SILT (ML); low plasticity, slow dilatancy, with some woody debris organics, slightly organic odor.			
						Bottom of exploration at 15 ft. bgs.			
<b>Legend</b> <input type="checkbox"/> No Soil Sample Recovery <input checked="" type="checkbox"/> Continuous core 1.85" ID		Water Level	Water Level ATD		See Exploration Log Key for explanation of symbols			<b>Exploration Log SB-04</b>	
Sample Method					Logged by: BMG Approved by: AET 9/26/2019			Sheet 1 of 1	



**Snopac - 150054**

### *Project Address & Site Specific Location*

5055 E Marginal Way S, Seattle, Washington

# **Environmental Exploration Log**

### *Exploration Number*

SB-05

Contractor		Equipment		Sampling Method			Ground Surface (GS) Elev.	SB-05
Holt		Direct push rig		Percussion hammer			NA	
Operator		Exploration Method(s)		Work Start/Completion Dates			Top of Casing Elev.	Depth to Water (Below GS)
Mike		Direct push		8/26/2019			NA	
Depth (feet)	Elev. (feet)	Exploration Completion and Notes		Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description
		Backfilled with hydrated bentonite chips						Concrete
				S1	Soil: SB5-2-3	PID= 0.0		FILL Slightly moist, light gray to gray SAND (SP); trace silt, fine to medium sand, no odor.
5	5			S2	Soil: SB5-9-10	PID= 0.0		Becomes gray to dark brown.
10	10			S3	Soil: SB5-12-13	PID= 0.0		Becomes dark gray.
15	15					PID= 0.5		Wet, dark gray, sandy silty SAND (SM); fine sand, non-plastic, rapid dilatancy, no odor.  <b>ESTUARY DEPOSITS</b> Very moist, brown, SILT (ML); low plasticity, slow dilatancy, with some woody debris organics, slightly organic odor.
								Bottom of exploration at 15 ft. bgs.
		8/26/2019						



**Snopac - 150054**

### *Project Address & Site Specific Location*

5055 E Marginal Way S, Seattle, Washington

# **Environmental Exploration Log**

### *Exploration Number*

**SB-06**

Contractor	Equipment	Sampling Method	Ground Surface (GS) Elev.	<b>SB-06</b>
Holt	Direct push rig	Percussion hammer	NA	
Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev.	Depth to Water (Below GS)
Mike	Direct push	8/26/2019	NA	10' (ATD)

PLD STANDARD EXPLORATION LOG TEMPLATE P:\GIN\WPROJECTS\SNOOPAC - 150054.GPJ September 26, 2019

## Legend

- No Soil Sample Recovery  
 Continuous core 1.85" ID

Water  
Level

Water Level ATD

See Exploration Log Key for explanation  
of symbols

Logged by: BMG  
Approved by: AET 9/26/2019

# **Exploration Log**

Sheet 1 of 1



**Snopac - 150054**

### *Project Address & Site Specific Location*

5055 E Marginal Way S, Seattle, Washington

# **Environmental Exploration Log**

### *Exploration Number*

**SB-07**

Contractor	Equipment	Sampling Method	Ground Surface (GS) Elev.	SB-07
Holt	Direct push rig	Percussion hammer	NA	
Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev.	Depth to Water (Below GS)
Mike	Direct push	8/26/2019	NA	10' (ATD)

PLD STANDARD EXPLORATION LOG TEMPLATE P:\GINT\WPROJECTS\SNOOPAC - 150054.GPJ September 26, 2019

**Legend**

- No Soil Sample Recovery  
 Continuous core 1.85" ID

Water  
Level

Water Level ATD

See Exploration Log Key for explanation  
of symbols

Logged by: BMG  
Approved by: AET 9/26/2019

# **Exploration Log**

Sheet 1 of 1



**Snopac - 150054**

*Project Address & Site Specific Location*

## **Environmental Exploration Log**

## *Exploration Number*

SB-08

Contractor	Equipment	Sampling Method	Ground Surface (GS) Elev.	SB-08
Holt	Direct push rig	Percussion hammer	NA	
Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev.	Depth to Water (Below GS)
Mike	Direct push	8/26/2019	NA	10' (ATD)

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINT\WPROJECTS\SNOOPAC - 150054.GPJ September 26, 2019

**Legend**

- No Soil Sample Recovery
  - Continuous core 1.85" ID

Water  
level

 Water Level ATD

See Exploration Log Key for explanation  
of symbols

Logged by: BMG  
Approved by: AET 9/26/2019

## **Exploration Log**

Sheet 1 of 1



**Snopac - 150054**

### *Project Address & Site Specific Location*

5055 E Marginal Way S, Seattle, Washington

# **Environmental Exploration Log**

## Coordinates

NA

## *Exploration Number*

# Sump



### Conceptual Phase Geotechnical Report - 170333

### Geotechnical Exploration Log

Project Address & Site Specific Location

5055 East Marginal Way South, Seattle, Washington.

Coordinates (Lat,Lon WGS84)

47.556, -122.340 (est)

Exploration Number

**B-21**

Contractor

Holocene Drilling

Equipment  
BK-81 Truck-mounted  
Drill

Sampling Method  
Autohammer; 140 lb hammer; 30" drop

Ground Surface (GS) Elev. (NAVD88)

16'(est)

Operator

Jerrold

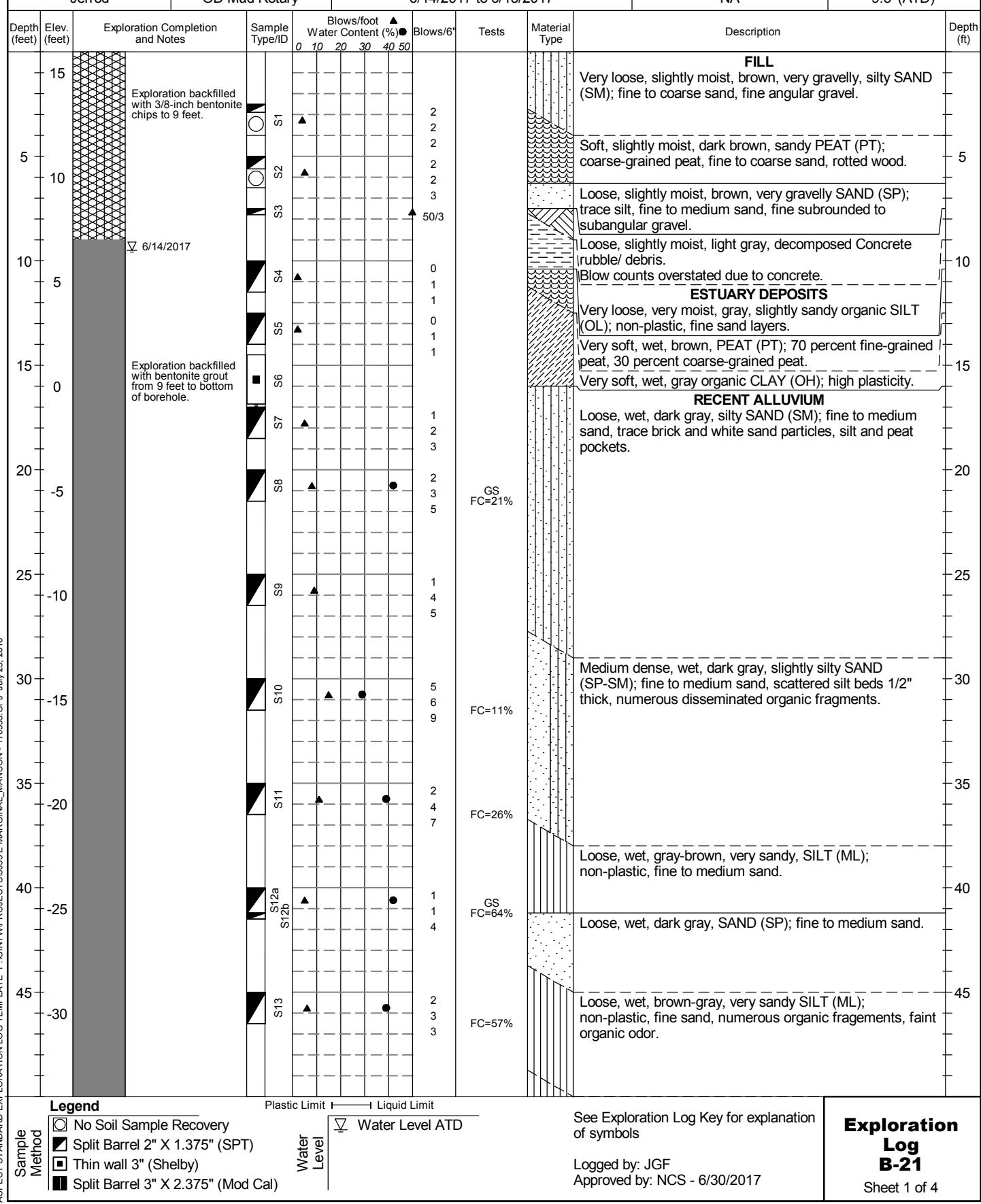
Exploration Method(s)  
Hollow-Stem Auger / 3"  
OD Mud Rotary

Work Start/Completion Dates  
6/14/2017 to 6/15/2017

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)  
9.5' (ATD)





Conceptual Phase Geotechnical Report - 170333

### *Project Address & Site Specific Location*

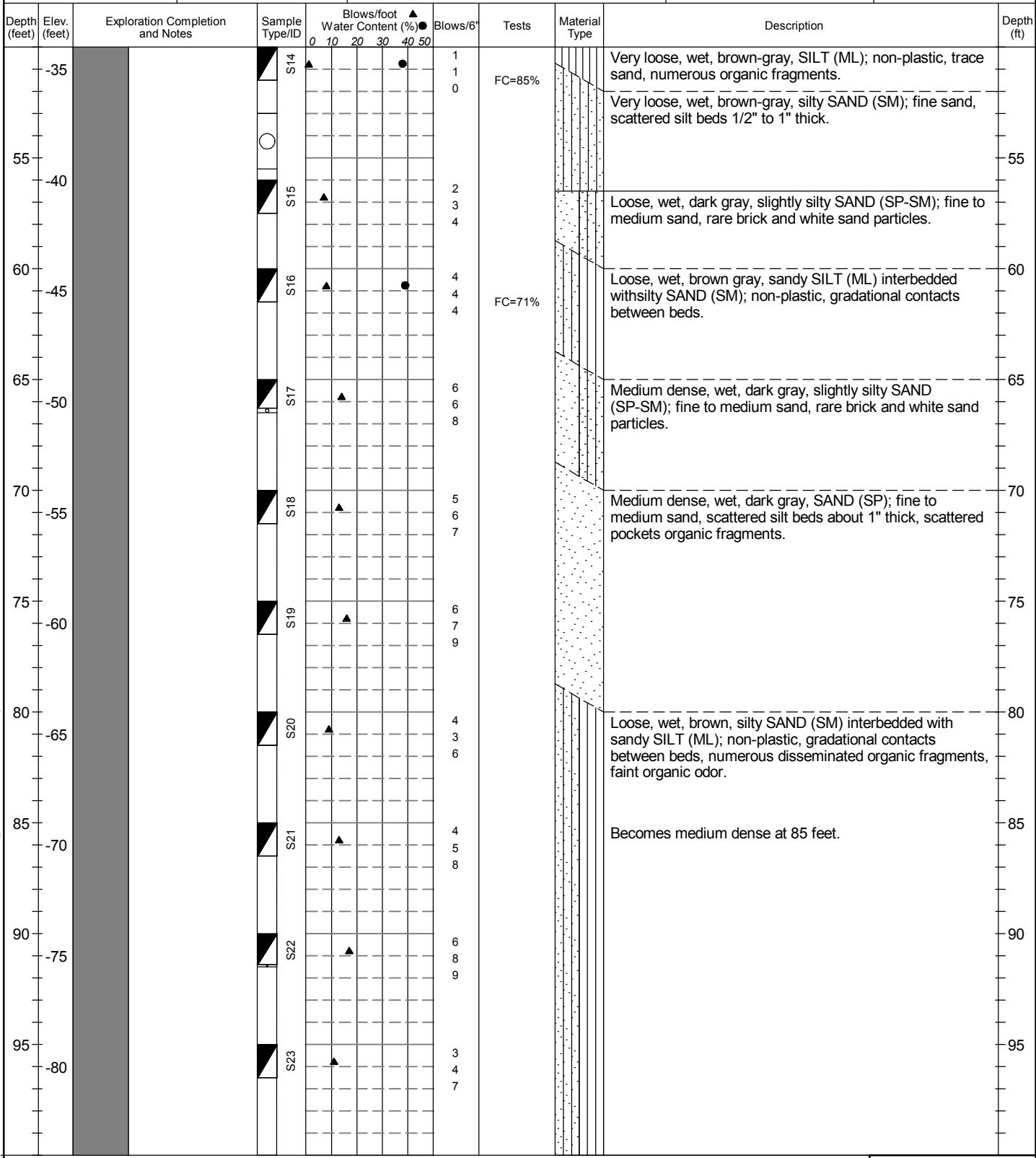
5055 East Marginal Way South, Seattle, Washington.

## Geotechnical Exploration Log

### *Exploration Number*

B-21

Contractor	Equipment	Sampling Method	Ground Surface (GS) Elev. (NAVD88)	B-21
Holocene Drilling	BK-81 Truck-mounted Drill	Autohammer; 140 lb hammer; 30" drop	16'(est)	
Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev. (NAVD88)	Depth to Water (Below GS)
Jerrod	Hollow-Stem Auger / 3" OD Mud Rotary	6/14/2017 to 6/15/2017	NA	9.5' (ATD)



ASPECT STANDARD EXPIRATION LOG TEMPLATE D:\GINT\NTMAP\PROJECTS\505AF MARGINA| MANSON - 170333.GP | Inv 25 2018

## Legend

- |               |  |
|---------------|--|
| Sample Method | <input type="checkbox"/> No Soil Sample Recovery<br><input checked="" type="checkbox"/> Split Barrel 2" X 1.375" (SPT)<br><input type="checkbox"/> Thin wall 3" (Shelby)<br><input checked="" type="checkbox"/> Split Barrel 3" X 2.375" (Mod Cal) |
|---------------|--|

Plastic Limit ————— Liquid Limit

Water Level

Water  
Level

▽ Water Level ATD

See Exploration Log Key for explanation  
of symbols

Logged by: JGF  
Approved by: NCS - 6/30/2017

# **Exploration Log**

## **B-21**

Sheet 2 of 4



### Conceptual Phase Geotechnical Report - 170333

### Geotechnical Exploration Log

Project Address & Site Specific Location

5055 East Marginal Way South, Seattle, Washington.

Coordinates (Lat,Lon WGS84)

47.556, -122.340 (est)

Exploration Number

**B-21**

Contractor

Holocene Drilling

Equipment  
BK-81 Truck-mounted  
Drill

Sampling Method  
Autohammer; 140 lb hammer; 30" drop

Ground Surface (GS) Elev. (NAVD88)

16'(est)

Operator

Jerrod

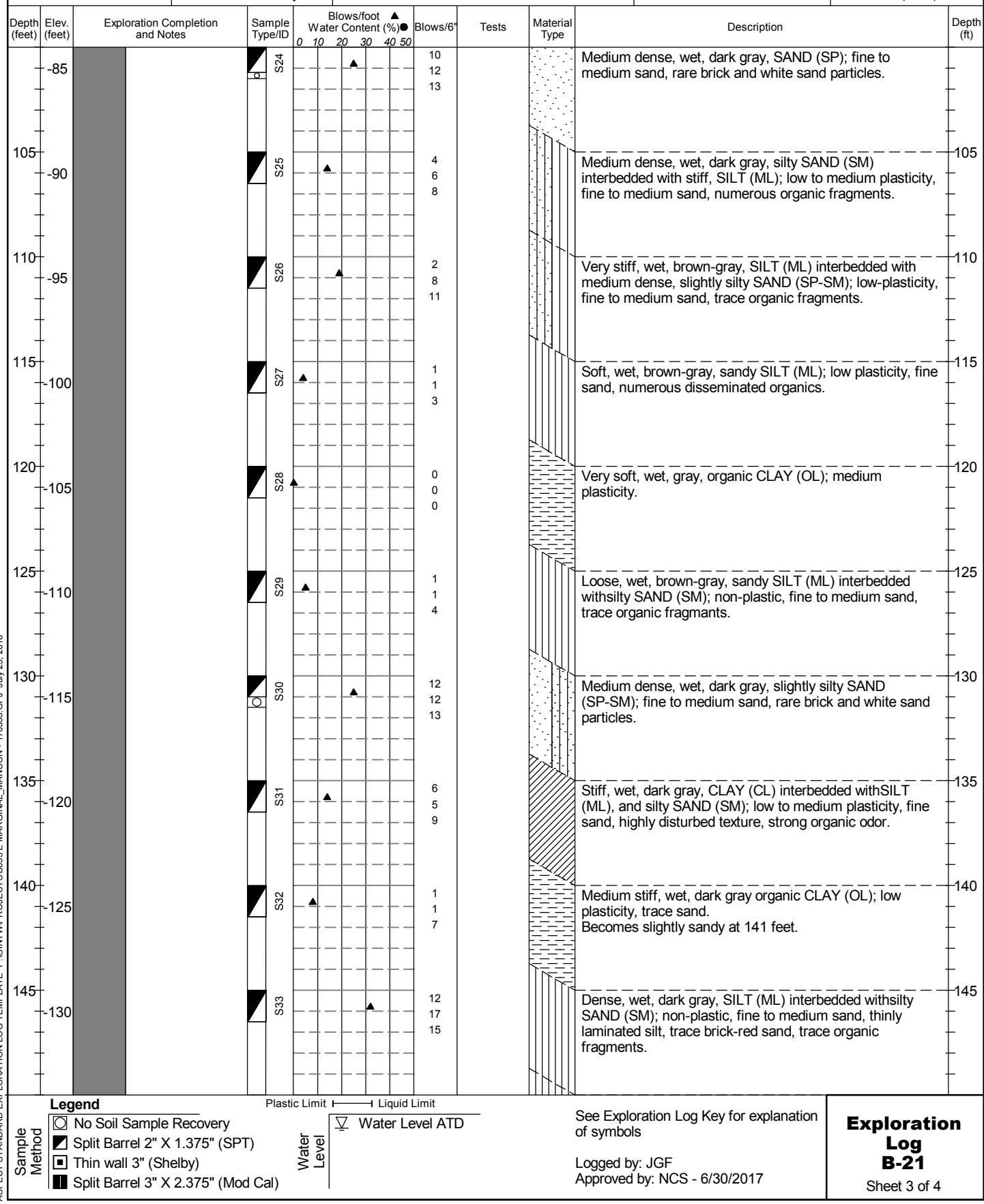
Exploration Method(s)  
Hollow-Stem Auger / 3"  
OD Mud Rotary

Work Start/Completion Dates  
6/14/2017 to 6/15/2017

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)  
9.5' (ATD)





Conceptual Phase Geotechnical Report - 170333

### *Project Address & Site Specific Location*

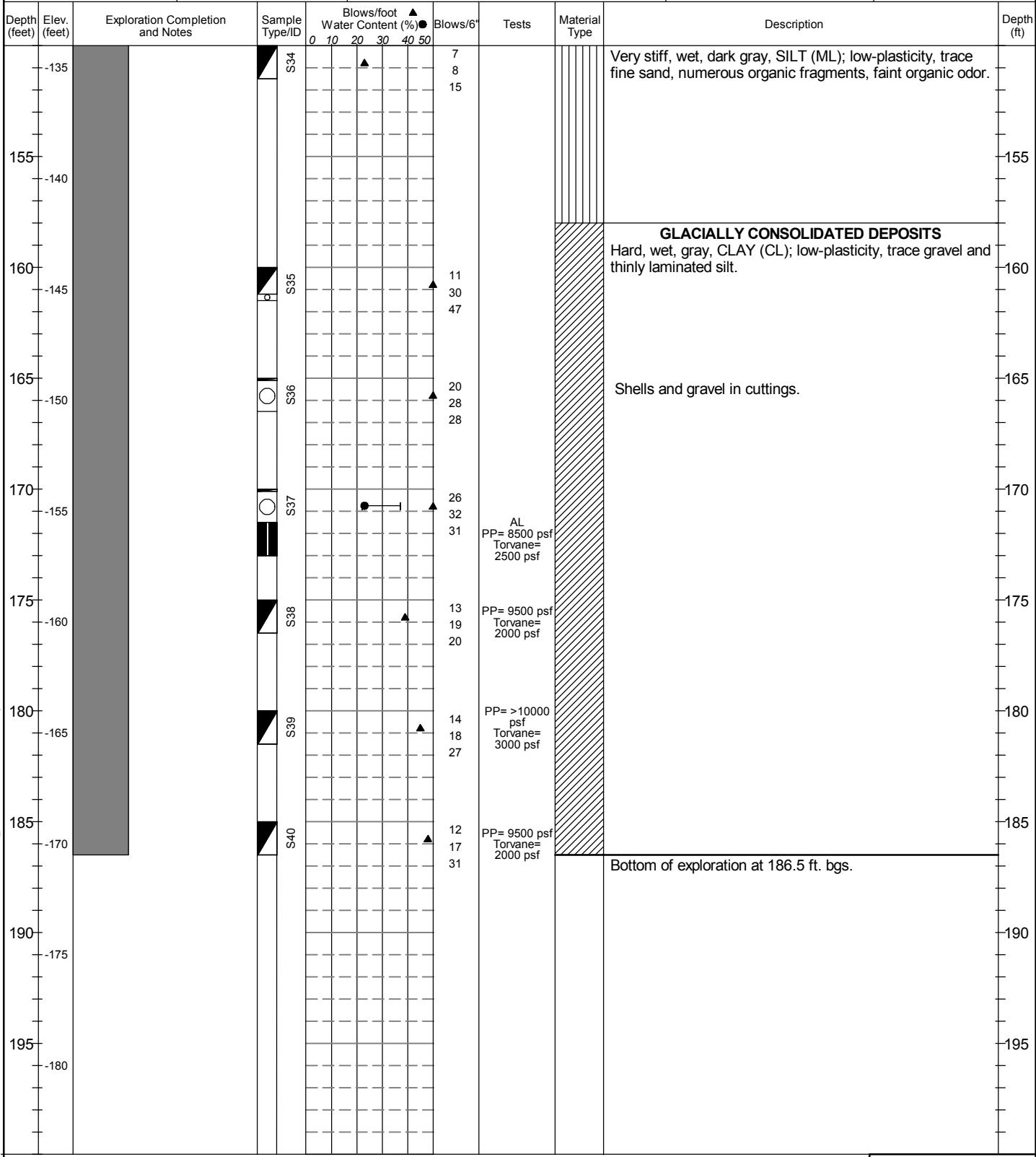
5055 East Marginal Way South, Seattle, Washington.

# Geotechnical Exploration Log

### *Exploration Number*

B-21

Contractor	Equipment	Sampling Method	Ground Surface (GS) Elev. (NAVD88)	B-21
Holocene Drilling	BK-81 Truck-mounted Drill	Autohammer; 140 lb hammer; 30" drop	16'(est)	
Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev. (NAVD88)	Depth to Water (Below GS)
Jerrod	Hollow-Stem Auger / 3" OD Mud Rotary	6/14/2017 to 6/15/2017	NA	9.5' (ATD)



ASPECT STANDARD EXPLORATION HSG TEMPLATE E\GINTWPROJECTS15055 E MARGINAL VANSON - 170333 GBY JUV 25. 2018

## **Legend**

- |               |  |
|---------------|--|
| Sample Method | <input type="checkbox"/> No Soil Sample Recovery<br><input checked="" type="checkbox"/> Split Barrel 2" X 1.375" (SPT)<br><input type="checkbox"/> Thin wall 3" (Shelby)<br><input checked="" type="checkbox"/> Split Barrel 3" X 2.375" (Mod Cal) |
|---------------|--|

Plastic Limit ————— Liquid Limit

Water Level

Water  
Level

See Exploration Log Key for explanation  
of symbols

Logged by: JGF  
Approved by: NCS - 6/30/2017

# **Exploration Log**

## **B-21**

Sheet 4 of 4

**Table C-1. Monitoring Well Construction and Water Level Data**

Project No. 150054, Seattle, Washington

Well ID	Horizontal Coordinates (Washington State Plane, ft)		Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Screened Interval Depths (ft bgs)		2/5/2017*		1/28/2018**	
							Depth to Water Below TOC (ft)	Groundwater Elevation (ft)	Depth to Water Below TOC (ft)	Groundwater Elevation (ft)
	Northing	Easting			Top	Bottom	Top	Bottom	Top	Bottom
MW-1	206441.5	1268610.7	16.4	16.14	8.0	18.0	8.70	7.44	8.42	7.72
MW-2	206497.9	1268577.1	15.7	15.51	5.0	15.0	8.88	6.63	8.68	6.83
MW-3	206538.6	1268552.1	15.7	15.20	2.5	12.5	11.69	3.51	11.50	3.70
MW-4	206607.8	1268514.5	15.7	15.28	4.0	14.0	8.86	6.42	8.91	6.37
MW-5	206491.4	1268605.2	15.8	15.49	4.0	14.0	6.93	8.56	7.28	8.21
MW-6	206541.3	1268591.0	16.2	15.74	4.0	14.0	7.01	8.73	8.68	7.06
MW-7	206620.1	1268549.2	15.5	15.17	4.0	14.0	6.59	8.58	6.68	8.49
MW-8	206684.0	1268659.2	16.8	16.42	15.0	25.0	11.13	5.29	11.37	5.05
MW-9	206457.2	1268657.8	16.4	16.05	4.0	14.0	7.07	8.98	7.86	8.19
MW-10	206402.6	1268749.2	17.0	16.60	15.0	25.0	10.60	6.00	9.98	6.62
MW-11	206438.3	1268607.7	16.6	16.21	4.0	14.0	8.89	7.32	8.71	7.50
MW-12	206678.8	1268632.2	16.5	16.15	4.0	14.0	7.94	8.21	7.61	8.54

**Notes:**

Horizontal Datum: NAD83/11. Vertical Datum: NAVD88.

\*: Water levels measured between approximately 1-1.5 hour before lower low tide on 2/5/17.

\*\*: Water levels measured between approximately 2.5-3 hours before lower low tide on 1/28/18.

bgs: Below ground surface.

## **APPENDIX D**

### **2011 Farallon Subsurface Investigation Results**

October 21, 2011

Mr. John Heckel  
Manson Construction Company  
5209 East Marginal Way South  
Seattle, Washington 98134

**RE: SUBSURFACE INVESTIGATION RESULTS  
SNOPAC PROPERTY  
5055 EAST MARGINAL WAY SOUTH  
SEATTLE, WASHINGTON  
FARALLON PN: 879-009**

Dear Mr. Heckel:

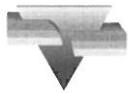
Farallon Consulting, L.L.C. (Farallon) has prepared this report to document the results of the Subsurface Investigation conducted at the Snopac property at 5055 East Marginal Way in Seattle, Washington (herein referred to as the Site) (Figure 1). The Subsurface Investigation was performed in accordance with the *Proposal for Subsurface Investigation, Snopac Property, 5055 West Marginal Way South, Seattle, Washington* dated July 22, 2011, prepared by Farallon.

The subsurface investigation was conducted to assess the recognized environmental conditions identified in the *Phase I Environmental Site Assessment Report, SnoPac Building, 5055 East Marginal Way South, Seattle, Washington* dated June 28, 2011, prepared by Farallon (Phase I ESA). The purpose of the Subsurface Investigation was to determine whether concentrations of total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), metals, and volatile organic compounds (VOCs) potentially released by the historical operations at the Site exceed regulatory cleanup levels in soil or groundwater at the Site.

This report provides a description of the Site and relevant background information, a summary of the recognized environmental conditions identified in the Phase I ESA, a description of the Subsurface Investigation scope of work and results, and conclusions.

## SITE DESCRIPTION AND BACKGROUND

The Site consists of King County Tax Parcel No. 3573201061 that comprises 1.33 acres and is developed with a combined warehouse and office building totaling 23,557 square feet (Figure 2). The building is a one-story concrete structure constructed in either 1919 or 1932, depending on the historical information source. The building has been occupied by Pioneer Towing Company, Olympic Lighterage Company, Stores Delivery Service, Marine Power and Equipment (warehouse), Interstate Transit Company/Jordan Terminal, and Emerson GM Diesel. Snopac



Products, Inc., (Snopac), the most recent occupant, vacated the building in 2008. The building is currently unoccupied.

### **RECOGNIZED ENVIRONMENTAL CONDITIONS**

Based on Farallon's historical research, regulatory database review, and interviews with persons knowledgeable about the Site, the following recognized environmental conditions were identified during completion of the Phase I ESA:

- Potential migration of hazardous substances from current or historical facilities located in the vicinity of the Site that have known or suspected releases to soil and/or groundwater that may have migrated in groundwater to the Site. Historical operations at adjacent properties north, east, and south of the Site included potential uses of petroleum products and other hazardous substances that have a potential to migrate onto the Site over time.
- Potential soil and/or groundwater contamination associated with releases from former underground storage tanks (USTs) that were located on the Site. Three USTs were reportedly removed from the Site in September 1989 and January 1990, as follows:
  - A 1,000-gallon UST at the northeast corner of the building;
  - A 2,500-gallon UST at the northwest corner of the property; and
  - A UST at the center of the property, west of the building, that was of unknown capacity but reported to be 8,000 or 10,000 gallons.
- The unknown nature and composition of the reported sandblast-like material in the western part of the Site. Sandblast grit frequently contains high concentrations of certain metals considered hazardous in the environment.
- Potential soil and/or groundwater contamination associated with release(s) from an electrical transformer of unknown age that may contain PCBs observed in the warehouse area of the Site building.

The Site is located on the Lower Duwamish Waterway (LDW) Superfund Site and has been identified by the U.S. Environmental Protection Agency (EPA) as a potential source of contamination to sediments in the LDW. Arsenic, copper, mercury, and zinc were detected at concentrations exceeding the Water Quality Standards for Surface Waters of the State of Washington in surface water samples collected by EPA from Seep 76, which was identified adjacent to the southwest corner of the Site.

A single stormwater catch basin was identified at the Site near the northwest corner of the Site building. No information was available regarding whether stormwater discharges directly to an outfall on the LDW or to the City of Seattle stormwater system. Although the catch basin was not specifically identified as a recognized environmental condition, it represents a potential pathway for historical releases to migrate to the LDW.

## SUBSURFACE INVESTIGATION

Field work for the Subsurface Investigation was performed by Farallon on August 25 and 26, 2011 and then again on October 5 and 6, 2011. The laboratory holding time was exceeded for the soil samples collected in August 2011, with the exception of those for metals analysis. Therefore, additional soil samples were collected in October 2011. The August 2011 sampling event included advancing 9 soil borings to depths between approximately 15 and 20 feet below ground surface (bgs) using direct-push drilling methods (Figure 2). The October 2011 sampling event included advancing 16 soil borings to depths between approximately 10 and 20 feet bgs using direct-push drilling methods (Figure 2).

Soil and reconnaissance groundwater samples collected from the borings were submitted for laboratory analysis.

### SCOPE OF WORK

The scope of work for the Subsurface Investigation included the following elements:

- Preparing a Health and Safety Plan in accordance with Chapter 296-62 of the Washington Administrative Code and Part 1910.120 of Title 29 of the Code of Federal Regulations prior to initiating field activities;
- Performing a utility locate at the boring locations using a private utility location service and contacting the One-Call Center for utility location;
- Performing a camera survey of the stormwater catch basin discharge line to determine the path of discharge from the Site;
- Advancing borings FB-1 through FB-9 at the Site during the August 2011 sampling event, and advancing borings FB-1A through FB-9A, FB-2B, FB-2C, FB-2D, FB-2E, FB-2F, FB-5B, and FB-5C during the October 2011 sampling event;
- Describing the subsurface conditions encountered during advancement of each of the borings in accordance with the Unified Soil Classification System (USCS) and field-screening soil samples for evidence of contamination;
- Submitting selected soil and reconnaissance groundwater samples collected from the borings for chemical analysis for one or more of the following:
  - TPH as gasoline-range organics (GRO) by Northwest Method NWTPH-Gx;
  - TPH as diesel-range organics (DRO) and oil-range organics (ORO) by Northwest Method NWTPH-Dx;
  - Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8021B;
  - Volatile organic compounds (VOCs) by EPA Method 8260B;
  - Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM;
  - Selected metals by EPA Method 6010B and 7471A; and

- Polychlorinated biphenyl compounds (PCBs) by EPA Method 8082.
- Collecting a wipe sample from floor staining adjacent to an electrical transformer in the Site building interior and submitting the sample for analysis of PCBs by EPA Method 8082.
- Preparing this letter report.

Drilling services for the advancement of borings FB-1 through FB-9 on August 25 and 26, 2011 were provided by Cascade Drilling, L.P. of Woodinville, Washington (Cascade Drilling). Drilling services for the advancement of borings FB-1A through FB-9A and supplementary borings on October 5 and 6, 2011 were provided by ESN Northwest, Inc. of Olympia, Washington (ESN Northwest). The locations of the borings are shown on Figure 2. The rationale for each boring is provided below. Boring numbers ending with the letter "A" represent borings advanced within a few feet of the original boring to replicate, to the extent practicable, the original soil sampling process.

- Boring FB-1 and FB-1A were located near the northeast corner of the Site building in the presumed down-gradient (westward) direction of groundwater flow from the former 1,000-gallon UST;
- Boring FB-2 and FB-2A were located near the northwest corner of the Site in the presumed down-gradient direction of groundwater flow from the former 2,500-gallon UST; supplementary borings FB-2B, FB-2C, FB-2D, FB-2E, and FB-2F were positioned at varying distances around boring FB-2 to assess the potential presence of soil staining and associated contaminants of concern previously identified in samples from boring FB-2;
- Boring FB-3 and FB-3A were located near the west-central part of the Site, west of the former 8,000- or 10,000-gallon UST, to assess the potential presence of contaminants from the UST operations and from sandblast-like material reportedly observed during removal of the former UST;
- Boring FB-4 and FB-4A were located near the center of the north property boundary of the Site to assess potential migration of oils and paints/solvents reportedly stored in the paint house on the north-adjacent property;
- Boring FB-5 and FB-5A were located in the presumed up-gradient (east) direction of groundwater flow from Seep 76 to evaluate if metals detected by EPA in seep water are present in soil and/or groundwater; supplementary borings FB-5B and FB-5C were positioned north and south of boring FB-5 to assess the potential presence of soil staining and naphthalene previously identified in samples from boring FB-5;
- Boring FB-6 and FB-6A were located near the center of the south boundary of the Site to assess for the potential presence of petroleum hydrocarbons or other contaminants migrating onto the Site from industrial sources off the Site to the south or southeast;
- Borings FB-7, FB-7A, FB-8, and FB-8A were located along the east side of the Site building, between the building and the railroad tracks, to assess potential migration of petroleum hydrocarbons and other contaminants from (1) historical gasoline service

station, auto repair, and truck and equipment repair facilities east of the Site, and (2) stormwater run-on from East Marginal Way South; and

- Boring FB-9 and FB-9A were located adjacent to the catch basin stormwater discharge line at the Site to assess the potential presence of contaminants from stormwater that may have leaked from the line.

Soil samples were collected continuously from each boring to the maximum depth explored of 15 to 20 feet bgs. Soil samples were collected in accordance with ASTM International and EPA standard protocols, and were classified in accordance with the USCS. Field-screening included noting indications of visual or olfactory evidence of contamination, and conducting headspace analysis for the presence of volatile organic vapors using a photoionization detector. Headspace analysis was conducted by placing a portion of soil from each sample interval into a resealable plastic bag and allowing the sample to warm for several minutes. The probe of the photoionization detector was then inserted into the bag, and the highest reading obtained over an approximate 30-second interval was recorded. The USCS symbol, visual and olfactory notations regarding the samples, and photoionization detector readings were recorded on boring log forms. The boring logs are provided in Attachment A.

Reconnaissance groundwater samples were collected from each boring in the August 2011 sampling event. Reconnaissance groundwater samples were not collected in the October 2011 sampling event. Groundwater levels at the Site are influenced by semidiurnal tides that affect the LDW. Farallon encountered saturated soils at depths between approximately 8 and 12 feet bgs; however, because of low tide effects, Farallon determined in the field that the most efficient depth for groundwater sampling was approximately between 15 and 20 feet bgs. A 2-inch-outside-diameter casing was driven to approximately 20 feet bgs, the outer casing was then partially withdrawn, exposing a 48-inch screen to the water-bearing unit. Groundwater was extracted through 0.25-inch-diameter tubing inserted down the 2-inch casing, and using a peristaltic pump with a flow rate of less than 500 milliliters per minute until a steady flow was established and turbidity was minimized. Groundwater samples were collected from the pump outlet and discharged into laboratory-prepared containers. Dedicated tubing was used for collection of each reconnaissance groundwater sample. Non-dedicated equipment was decontaminated between sampling locations.

Two or more soil samples were collected from each boring based on the field screening criteria, and at least one soil sample from each boring was submitted for laboratory analysis. Soil samples were collected directly from the liner recovered from the probe core barrel using plastic sampling tools. Non-dedicated sampling equipment was decontaminated between uses. Soil samples were transferred immediately into laboratory-supplied sample containers. Samples for analysis of volatile organic compounds were collected in accordance with EPA Method 5035A protocols.

Selected soil samples and reconnaissance groundwater samples collected from each boring were submitted for laboratory analyses. The specific analyses varied by sample and were based on the results of field screening and the particular contaminants of concern at each sample location.



Each of the borings completed in areas covered with gravel were backfilled with bentonite to ground surface. Borings FB-7, FB-7A, FB-8, and FB-8A were backfilled with bentonite to within approximately 4 inches of the ground surface and sealed at the surface with concrete. At the time of this report, waste water and soil generated during the Subsurface Investigation was stored in sealed drums in a secure location at the Site and will be properly disposed of at a later date.

Farallon obtained a wipe sample from floor staining adjacent to an electrical transformer in the Site building interior. The stain was vigorously wiped with a clean cloth soaked in hexane (provided by the laboratory) and placed into a sample container and submitted for PCB analysis.

## RESULTS

### Stormwater Conveyance System

The camera survey of the stormwater catch basin discharge line performed by APS, Inc. (APS) on August 25, 2011 showed that the line consists of loosely-joined segments of 6-inch-diameter concrete pipe of varying lengths. The line extends over 40 feet to the west-southwest directly toward Slip 1 (Figure 2). The camera was blocked by a displaced pipe joint and was not able to reach the end of the line. Farallon personnel looked for the line outfall on the Slip 1 bank; however, the outfall appears to be buried beneath broken concrete and other debris covering the bank. The camera showed that the pipe is approximately half-full of sediment, and plant roots are abundant near each pipe joint.

The subsurface location survey for non-conductible materials performed by APS on September 5, 2011 located two subsurface stormwater lines that connect to the Site building (Figure 2). These lines run directly from the building toward Slip 1. The lines appear to connect with the building downspouts, which collect and discharge stormwater from the building roof.

Boring FB-9 was located near the south side of the discharge line at the first pipe joint, approximately 10 feet from the catch basin. A single inlet to the catch basin appears to connect to a downspout from the building roof.

### Subsurface Soil Conditions

The stratigraphy encountered in borings consisted of fine to medium sand interbedded with lesser silty sand, sandy silt, organic silt, and silt/clay from near ground surface to 20 feet bgs, the total depth explored. Coal fragments, assumed to be artifacts from historical coal storage bins, were observed in several borings on the west side of the Site. No subsurface materials resembling sandblast grit were observed. Saturated soils were encountered at depths between approximately 8 and 12 feet bgs, which corresponds approximately with local high groundwater levels. As noted above, groundwater levels in this area along the LDW are influenced by local tides. Boring logs are provided in Attachment A.

## Analytical Results

The analytical results for groundwater and soil samples are summarized in the following tables:

### Soil

- Table 1 - GRO, DRO, ORO, and BTEX
- Table 2 - PAHs
- Table 3 - VOCs
- Table 4 - Metals

### Groundwater

- Table 5 - GRO, DRO, ORO, and BTEX
- Table 6 - PAHs
- Table 7 - VOCs
- Table 8 - Metals

PCBs were not detected at concentrations above the laboratory reporting limits in soil or reconnaissance groundwater samples; therefore, tables were not prepared for PCB analytical results.

The laboratory analytical reports are presented in Attachment B.

### Analytical Results for Samples Collected on August 25 and 26, 2011

#### Soil

Concentrations of GRO, benzene, toluene, total xylenes, and carcinogenic PAHs exceeded the MTCA Method A soil cleanup levels in the soil sample collected at 5.2 feet bgs from boring FB-2 (Tables 1 and 2; Figure 2). DRO, ORO, ethylbenzene, and all PAHs were detected at concentrations above the laboratory reporting limits in this soil sample. The concentration of total naphthalenes, as a VOC, in the soil sample collected at 18.0 feet bgs from boring FB-5 exceeded the MTCA Method A soil cleanup level (Table 3). Naphthalene, as a PAH, was detected at concentrations above the laboratory reporting limits in this soil sample.

The laboratory analytical results for the remaining soil samples and analyses were reported as non-detect at the laboratory reporting limits or are below the applicable MTCA Method A soil cleanup levels or Method B formula values (Tables 1 to 4). The soil analytical results are from soil samples that exceeded the acceptable laboratory holding times. Therefore, the analytical results do not meet the Quality Assurance/Quality Control requirement.

#### Reconnaissance Groundwater

Reconnaissance groundwater samples were collected from each boring. Concentrations of DRO and ORO exceeded the MTCA Method A groundwater cleanup levels in reconnaissance groundwater samples collected from borings FB-3 and FB-8 (Table 5; Figure 2). DRO and ORO

were detected at concentrations above the laboratory reporting limits, but below the MTCA cleanup levels in reconnaissance groundwater samples collected from borings other than FB-3 and FB-8. Concentrations of arsenic and total chromium detected in the reconnaissance groundwater sample collected from boring FB-1 exceeded the MTCA Method A groundwater cleanup levels (Table 8). Total chromium detected in the reconnaissance groundwater sample collected from boring FB-2 exceeded the MTCA Method A groundwater cleanup level. The laboratory analytical results for the remaining reconnaissance groundwater samples and analyses were reported as non-detect at the laboratory reporting limits or are below the applicable MTCA Method A cleanup levels or Method B formula values (Tables 5 to 8).

#### Wipe Samples

Concentrations of PCB Aroclor 1254 and Aroclor 1260 were detected in the wipe sample obtained from the floor staining adjacent to an electrical transformer in the building interior. These Aroclors are typical of dielectric fluids associated with electrical transformers.

#### Analytical Results for Samples Collected on October 5 and 6, 2011 – Soil Samples Only

Concentrations of GRO, benzene, xylenes, and carcinogenic PAHs exceeded the MTCA Method A soil cleanup levels in the soil sample collected at 5.3 feet bgs from boring FB-2A (Tables 1 and 2; Figure 2). Concentrations of GRO and benzene exceeded the MTCA Method A soil cleanup levels in the soil sample collected at 4.7 feet bgs from boring FB-2B, located between 10 and 15 feet north of boring FB-2A. The concentration of naphthalene, as a VOC, exceeded the MTCA Method A soil cleanup level in the soil samples collected at 10.2 and 14.8 feet bgs from boring FB-5C, located approximately 10 feet south of boring FB-5A (Table 3; Figure 2).

The laboratory analytical results for the remaining soil samples were reported as non-detect at the laboratory reporting limits or are below the applicable MTCA Method A soil cleanup levels or Method B formula values (Tables 1 to 4).

### CONCLUSIONS

The results of the subsurface investigation conducted at the Site are summarized as follows. GRO, BTEX, cPAHs, and naphthalene were detected at concentrations exceeding the regulatory cleanup levels in soil samples collected at the Site. DRO, ORO, arsenic, and chromium were detected at concentrations exceeding the regulatory cleanup levels in reconnaissance groundwater samples collected from borings located on the Site. Cleanup of soil and groundwater will be necessary to meet the Ecology requirements for a No Further Action (NFA) determination.

GRO, BTEX, and cPAHs were detected at concentrations exceeding the regulatory cleanup levels in soil samples collected on the northwestern side of the Site, near the former location of an UST, at approximately 5 feet bgs. It appears that the contamination detected in soil may be associated with release(s) from the former UST. The concentrations of cPAHs detected in soil in this area may be associated with creosote timber pilings or other unknown sources. GRO, BTEX, or cPAHs were not detected in reconnaissance groundwater samples collected in this area, suggesting that the extent of contamination in soil may be limited.

ORO and DRO were detected at concentrations exceeding the regulatory cleanup levels in reconnaissance groundwater samples collected from borings located on the southwestern side of the Site, near the former location of an UST. It appears that the contamination detected in reconnaissance groundwater samples may be associated with release(s) from the former UST. DRO and ORO were detected at concentrations exceeding the regulatory cleanup levels in reconnaissance groundwater samples collected from a boring located on the eastern (up-gradient) side of the Site. It appears that the source of the DRO and ORO detected in the reconnaissance groundwater samples may be from an off-site source.

Arsenic and chromium were detected at concentrations exceeding the regulatory cleanup levels in reconnaissance groundwater samples collected from borings located in the northern portion of the Site. Although arsenic and chromium are common in the area, the source is unknown.

The results of the investigation confirm that stormwater runoff from the northern surface area and from the roof discharges directly to the surface water of the LDW. The Site has been identified by the EPA as a potential source of contamination to sediments in the LDW Superfund Site from prior operations, existing shoreline conditions, and stormwater discharges.

## LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations:

- **Accuracy of Information.** Certain information used by Farallon in this report/assessment has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although Farallon's conclusions, opinions, and recommendations are based in part on such information, Farallon's services did not include verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and Characterization.** Farallon performed a reconnaissance and characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated.

## CLOSING

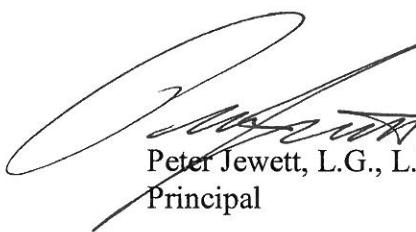
Farallon appreciates the opportunity to provide environmental consulting services for this project. We trust this report provides sufficient information for your needs. Please contact either of the undersigned at (425) 295-0800 if you have any questions or require additional information.

Sincerely,

**Farallon Consulting, L.L.C.**



Donald Lance, L.G., L.H.G.  
Senior Geologist



Peter Jewett, L.G., L.E.G.  
Principal



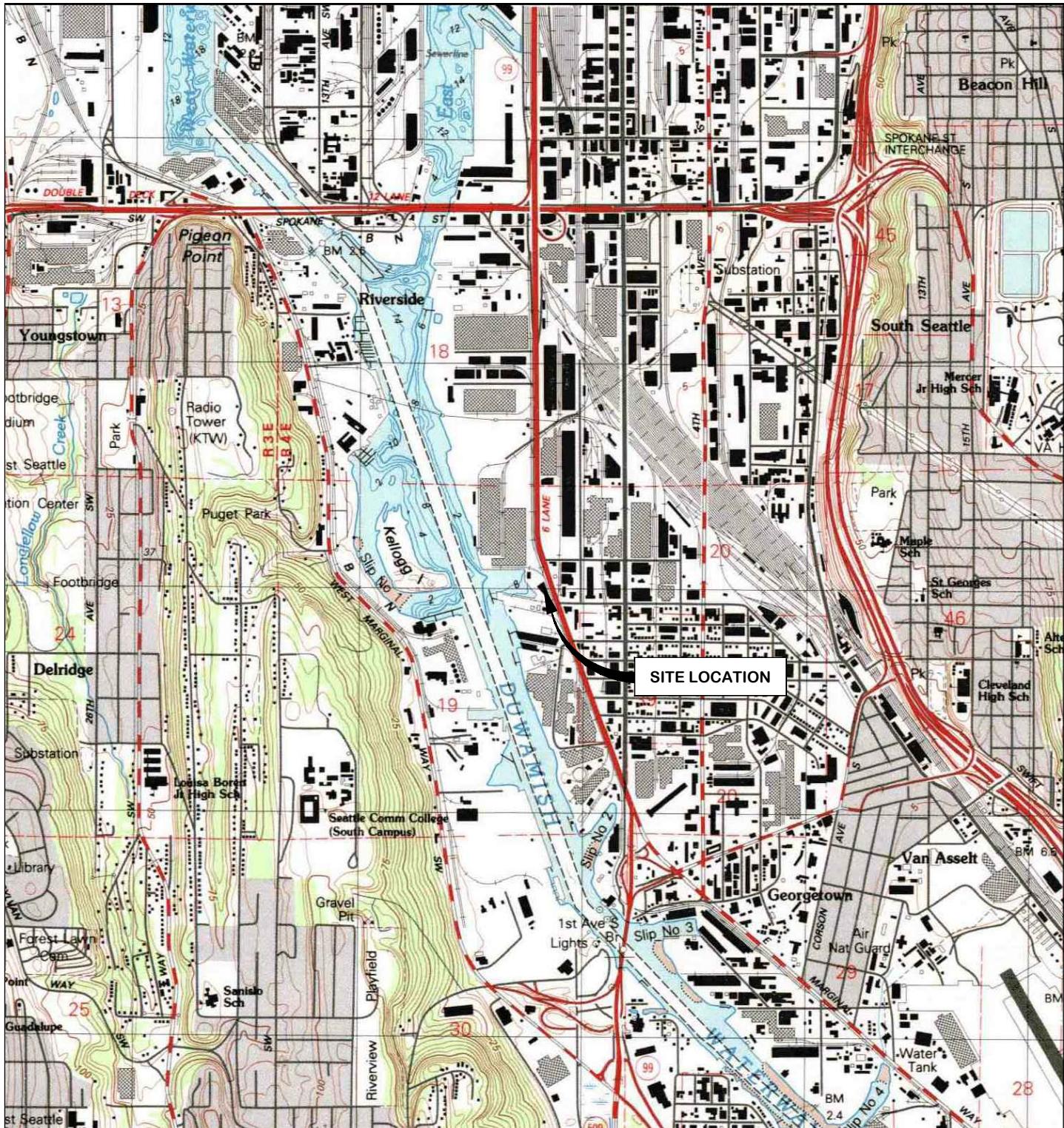
Attachments: Figure 1, *Site Vicinity Map*  
Figure 2, *Site Plan Showing Analytical Results*  
Table 1, *Summary of Soil Analytical Results, Total Petroleum Hydrocarbons and BTEX*  
Table 2, *Summary of Soil Analytical Results, Polycyclic Aromatic Hydrocarbons*  
Table 3, *Summary of Soil Analytical Results, Volatile Organic Compounds*  
Table 4, *Summary of Soil Analytical Results, Metals*  
Table 5, *Summary of Reconnaissance Groundwater Analytical Results, Total Petroleum Hydrocarbons and BTEX*  
Table 6, *Summary of Reconnaissance Groundwater Analytical Results, Polycyclic Aromatic Hydrocarbons*  
Table 7, *Summary of Reconnaissance Groundwater Analytical Results, Volatile Organic Compounds*  
Table 8, *Summary of Soil and Reconnaissance Groundwater Analytical Results, Metals*  
Attachment A, Boring Logs  
Attachment B, Laboratory Analytical Reports

DL/PJ:bjj

## **FIGURES**

SUBSURFACE INVESTIGATION RESULTS  
Snopac Property  
5055 East Marginal Way South  
Seattle, Washington

Farallon PN: 879-009



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE SOUTH, WASHINGTON. DATED 1983

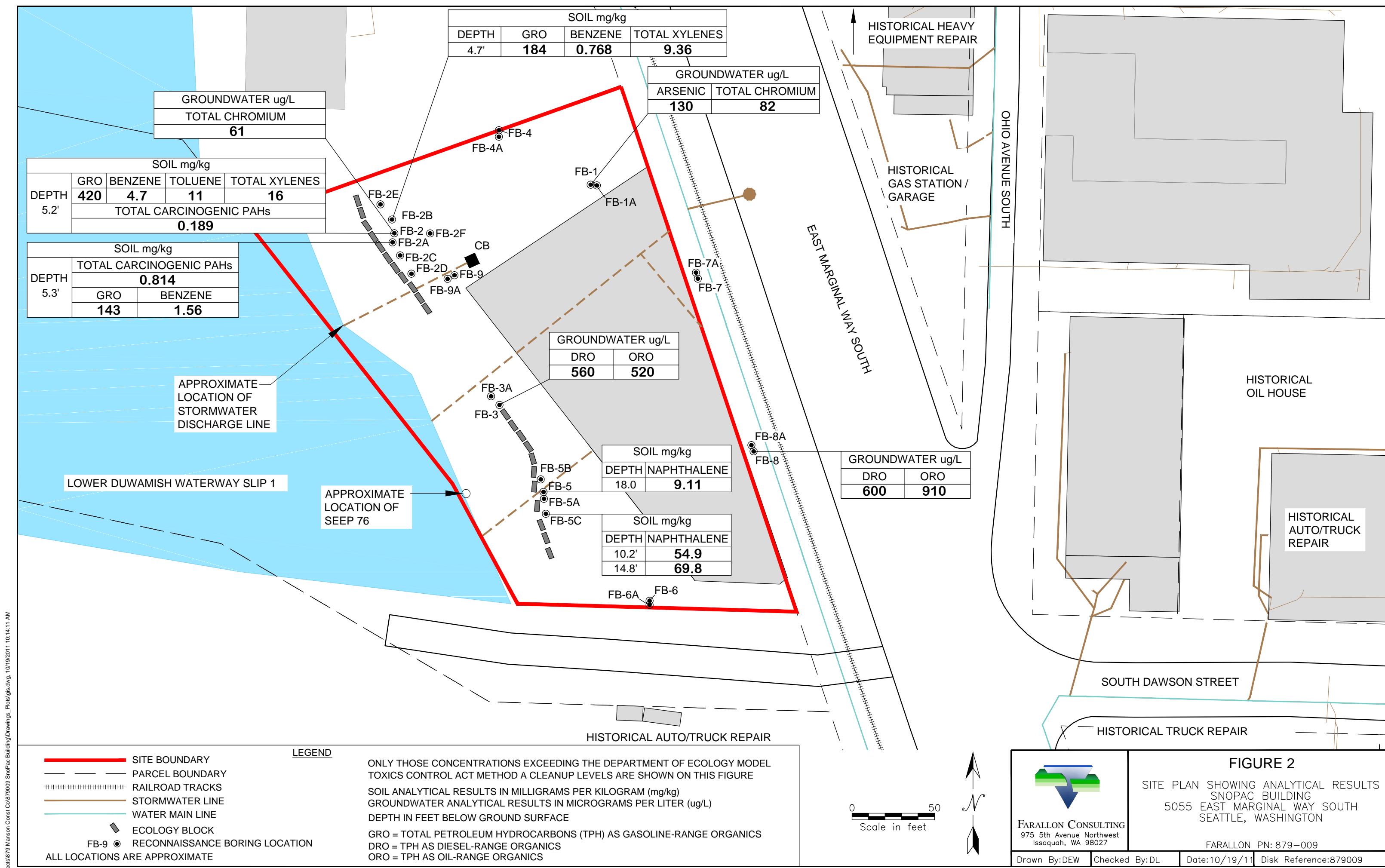


FIGURE 1

SITE VICINITY MAP  
SNO PAC BUILDING  
5055 MARGINAL WAY SOUTH  
SEATTLE, WASHINGTON

FARALLON PN: 879-009

Drawn By: DEW	Checked By: DC	Date: 6/14/11	Disk Reference: 879009
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## **TABLES**

SUBSURFACE INVESTIGATION RESULTS  
Snopac Property  
5055 East Marginal Way South  
Seattle, Washington

Farallon PN: 879-009

**Table 1**  
**Summary of Soil Analytical Results--Total Petroleum Hydrocarbons and BTEX**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

Sample Identification	Sample Date	Approximate Sample Depth (feet bgs) <sup>1</sup>	Analytical Results (milligrams per kilogram)						
			GRO <sup>2</sup>	DRO <sup>3</sup>	ORO <sup>3</sup>	Benzene	Toluene	Ethylbenzene	Total Xylenes
082511-FB1-9.5	8/25/2011	9.5	<10	<31	<63	<0.051 <sup>4</sup>	<0.13 <sup>4</sup>	<0.13 <sup>4</sup>	<0.25 <sup>4</sup>
082511-FB2-5.2	8/25/2011	5.2	<b>420</b>	200	430	<b>4.7</b>	<b>11</b>	2.0	<b>16</b>
082511-FB2-16.0	8/25/2011	16.0	<20	<48	<96	<10	<26	<26	<0.51
082511-FB3-14.9	8/25/2011	14.9	<17	<44	98	<0.083	<0.21	<0.21	<0.42
082511-FB4-8.7	8/25/2011	8.7	--	<30	<60	--	--	--	--
082511-FB5-18.0	8/25/2011	18.0	--	<39	<77	<0.0306	<0.153	<0.153	<0.59
082611-FB6-11.6	8/26/2011	11.6	--	<39	<79	--	--	--	--
082611-FB7-11.8	8/26/2011	11.8	<14	<39	<78	<0.068	<0.17	<0.17	<0.34
082611-FB8-11.6	8/26/2011	11.6	<9.9	<43	<86	<0.050	<0.12	<0.12	<0.25
082611-FB9-12.0	8/26/2011	12.0	<14	<40	<79	--	--	--	--
100511-FB1A-9.8	10/5/2011	9.8	<19.2	<21.7	46.5	<0.0959	<0.240	<0.240	<0.479
100611-FB2A-5.3	10/6/2011	5.3	<b>143</b>	320	569	<b>1.56</b>	5.01	0.918	8.65
100611-FB2A-10.0	10/6/2011	10.0	<14.5	<19.4	<38.8	<0.0725	<0.181	<0.181	<0.362
100611-FB2A-16.0	10/6/2011	16.0	<12.4	<17.9	<35.7	<0.0619	<0.310	<0.310	<0.929
100611-FB2B-4.7	10/6/2011	4.7	<b>184</b>	--	--	<b>0.768</b>	3.57	1.32	<b>9.36</b>
100611-FB2D-5.2	10/6/2011	5.2	<8.97	--	--	<0.0448	<0.112	<0.112	<0.224
100611-FB2E-5.2	10/6/2011	5.2	<9.79	--	--	<0.0489	<0.122	<0.122	<0.245
100611-FB2F-2.2	10/6/2011	2.2	<11.7	--	--	<0.0585	<0.146	<0.146	<0.292
100611-FB3A-7.6	10/6/2011	7.6	<9.87	15.7	38.4	<0.0493	<0.123	<0.123	<0.247
100611-FB3A-14.5	10/6/2011	14.5	<14.8	<21.1	68.1	<0.0741	<0.185	<0.185	<0.371
100511-FB4A-9.7	10/5/2011	9.7	--	<17.4	<34.9	--	--	--	--
100511-FB5A-8.4	10/5/2011	8.4	--	--	--	<0.0739	<0.369	<0.369	<1.11
100511-FB5A-18.0	10/5/2011	18.0	--	55.5	156	<0.0457	<0.229	<0.229	<0.686
100511-FB5B-18.0	10/5/2011	18.0	--	--	--	<0.0743	<0.371	<0.371	<1.11
100511-FB5C-10.2	10/5/2011	10.2	--	--	--	<0.102	<0.509	<0.509	<1.529
100511-FB5C-14.8	10/5/2011	14.8	--	--	--	<0.117	<0.584	<0.584	<1.754
<b>MTCA Method A Cleanup Levels<sup>5</sup></b>			<b>100 / 30<sup>6</sup></b>	<b>2,000</b>	<b>2,000</b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>

**Table 1**  
**Summary of Soil Analytical Results--Total Petroleum Hydrocarbons and BTEX**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

Sample Identification	Sample Date	Approximate Sample Depth (feet bgs) <sup>1</sup>	Analytical Results (milligrams per kilogram)						
			GRO <sup>2</sup>	DRO <sup>3</sup>	ORO <sup>3</sup>	Benzene	Toluene	Ethylbenzene	Total Xylenes
100511-FB6A-11.5	10/5/2011	11.5	--	<21.5	112	--	--	--	--
100511-FB7A-11.8	10/5/2011	11.8	<18.1	<20.8	<41.6	<0.0907	<0.227	<0.227	<0.454
100511-FB8A-11.7	10/5/2011	11.7	<25.4	<27.3	116	<0.127	<0.318	<0.318	<0.636
100511-FB9A-11.8	10/5/2011	11.8	<15.6	22.9	124	<0.0782	<0.391	<0.391	<1.173
<b>MTCA Method A Cleanup Levels<sup>5</sup></b>			<b>100 / 30<sup>6</sup></b>	<b>2,000</b>	<b>2,000</b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>

**NOTES:**

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

-- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface (bgs).

<sup>2</sup>Analyzed by Northwest Method NWTPH-Gx/BTEX.

<sup>3</sup>Analyzed by Northwest Method NWTPH-Dx.

<sup>4</sup>Analyzed by U.S. Environmental Protection Agency Method 8260B.

<sup>5</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

<sup>6</sup>Cleanup level without / with the presence of benzene.

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

ORO = TPH as oil-range organics

**Table 2**  
**Summary of Soil Analytical Results--Polycyclic Aromatic Hydrocarbons**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

Sample Identification	Sample Date	Depth (feet bgs) <sup>1</sup>	Analytical Results (milligrams per kilogram) <sup>2</sup>																			
			Non-Carcinogenic PAHs										Carcinogenic PAHs									
			Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(g,h,i)perylene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Total Toxic Equivalent Concentration <sup>5</sup>	
082511-FB1-9.5	8/25/2011	9.5	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	0.005		
082511-FB2-5.2	8/25/2011	5.2	0.85	1.1	0.94	0.021	0.027	0.031	0.48	0.1	0.31	0.29	0.1	0.14	1.3	0.3	0.034	0.12	0.064	0.026	<b>0.189</b>	
082511-FB2-16.0	8/25/2011	16	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	0.007		
082511-FB3-14.9	8/25/2011	14.9	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	0.007		
082511-FB4-8.7	8/25/2011	8.7	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.005		
082511-FB5-18.0	8/25/2011	18.0	1.2	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	0.006		
082611-FB6-11.6	8/26/2011	11.6	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	0.006		
082611-FB7-11.8	8/26/2011	11.8	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	0.006		
082611-FB8-11.6	8/26/2011	11.6	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	0.007		
082611-FB9-12.0	8/26/2011	12.0	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	0.014	<0.0078	<0.0078	<0.0078	0.011	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	0.006		
100511-FB1A-9.8	10/5/2011	9.8	<0.0234	--	--	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	0.018		
100611-FB2A-5.3	10/6/2011	5.3	0.558	--	--	0.0607	<0.0324	<0.0647	0.847	0.199	<1.02	1.14	0.648	0.782	0.73	0.51	0.386	0.586	0.383	0.144	<b>0.814</b>	
100611-FB2A-10.0	10/6/2011	10.0	<0.0209	--	--	<0.0209	<0.0209	<0.0209	<0.0209	<0.0209	0.035	0.06	<0.0209	<0.0209	<0.0209	<0.0209	<0.0209	<0.0209	<0.0209	0.018		
100611-FB2A-16.0	10/6/2011	16.0	<0.0193	--	--	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	0.015		
100611-FB3A-7.6	10/6/2011	7.6	<0.0168	--	--	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	0.0641	0.072	0.0174	0.024	0.0336	0.0219	<0.0168	0.0196	<0.0168	0.027
100611-FB3A-14.5	10/6/2011	14.5	<0.0228	--	--	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	0.0508	0.0478	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	<0.0228	0.017	
100511-FB4A-9.7	10/5/2011	9.7	<0.0188	--	--	<0.0188	0.0458	<0.0188	0.0499	0.105	0.434	0.411	0.0234	0.0947	0.124	0.0556	0.0383	0.0473	0.021	<0.0188	0.070	
100511-FB5A-8.4	10/5/2011	8.4	<0.739	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA		
100511-FB5A-18.0	10/5/2011	18.0	<0.0164	--	--	<0.0164	<0.0164	<0.0164	<0.0164	<0.0164	0.0271	0.0274	<0.0164	<0.0164	0.0352	0.0194	<0.0164	<0.0164	<0.0164	<0.0164	0.014	
100511-FB5B-18.0	10/5/2011	18.0	<0.743	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA		
100511-FB5C-10.2	10/5/2011	10.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA		
100511-FB5C-14.8	10/5/2011	14.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA		
<b>MTCA Cleanup Levels</b>			<b>5<sup>3</sup></b>			NE	<b>4,800<sup>4</sup></b>	<b>3,200<sup>4</sup></b>	NE	<b>24,000<sup>4</sup></b>	<b>3,200<sup>4</sup></b>	<b>2,400<sup>4</sup></b>	NE	<b>Cleanup Level for Mixture</b>								<b>0.1<sup>3</sup></b>

**Table 2**  
**Summary of Soil Analytical Results--Polycyclic Aromatic Hydrocarbons**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

Sample Identification	Sample Date	Depth (feet bgs) <sup>1</sup>	Analytical Results (milligrams per kilogram) <sup>2</sup>																			
			Non-Carcinogenic PAHs										Carcinogenic PAHs									
			Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(g,h,i)perylene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Total Toxic Equivalent Concentration <sup>5</sup>	
100511-FB6A-11.5	10/5/2011	11.5	<0.0231	--	--	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	<0.0231	0.018		
100511-FB7A-11.8	10/5/2011	11.8	<0.0223	--	--	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	<0.0223	0.017		
100511-FB8A-11.7	10/5/2011	11.7	<0.0293	--	--	<0.0293	<0.0293	<0.0293	<0.0293	<0.0293	<0.0293	<0.0293	<0.0293	<0.0293	<0.0293	0.0318	<0.0293	<0.0293	<0.0293	0.024		
100511-FB9A-11.8	10/5/2011	11.8	<0.022	--	--	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	0.0227	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	0.017		
<b>MTCA Cleanup Levels</b>			<b>5<sup>3</sup></b>			NE	<b>4,800<sup>4</sup></b>	<b>3,200<sup>4</sup></b>	NE	<b>24,000<sup>4</sup></b>	<b>3,200<sup>4</sup></b>	<b>2,400<sup>4</sup></b>	NE	<b>Cleanup Level for Mixture</b>								<b>0.1<sup>3</sup></b>

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

-- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method 8270D/SIM.

<sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

<sup>4</sup>Washington State Department of Ecology Cleanup Levels and Risk Calculations under the Washington State Model Toxics Control Act Cleanup Regulation, Version 3.1 Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway.

<sup>5</sup>Total Toxic Equivalent Concentration for mixtures of carcinogenic PAHs, calculated in accordance with MTCA, Chapter 173-340-708(8).

NA = not applicable

NE = cleanup levels not established

PAHs = polycyclic aromatic hydrocarbons

**Table 3**  
**Summary of Soil Analytical Results--Volatile Organic Compounds**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

<b>Sample Identification</b>	<b>Sample Date</b>	<b>Approximate Sample Depth (feet bgs)<sup>1</sup></b>	<b>Analytical Results (milligrams per kilogram)<sup>2</sup></b>
			<b>Naphthalene</b>
082511-FB2-16.0	8/25/2011	16.0	<0.484
082511-FB5-18.0	8/25/2011	18.0	<b>9.11</b>
082611-FB9-12.0	8/26/2011	12.0	<0.413
100511-FB1A-9.8	10/5/2011	9.8	<0.0234
100611-FB2A-5.3	10/6/2011	5.3	3.8
100611-FB2A-10.0	10/6/2011	10.0	<0.0209
100611-FB2A-16.0	10/6/2011	16.0	<0.310
100611-FB3A-7.6	10/6/2011	7.6	<0.0168
100611-FB3A-14.5	10/6/2011	14.5	<0.0228
100511-FB4A-9.7	10/5/2011	9.7	<0.0188
100511-FB5A-8.4	10/5/2011	8.4	<0.739
100511-FB5A-18.0	10/5/2011	18.0	<0.457
100511-FB5B-18.0	10/5/2011	18.0	<0.743
100511-FB5C-10.2	10/5/2011	10.2	<b>54.9</b>
100511-FB5C-14.8	10/5/2011	14.8	<b>69.8</b>
100511-FB6A-11.5	10/5/2011	11.5	<0.0231
100511-FB7A-11.8	10/5/2011	11.8	<0.0223
100511-FB8A-11.7	10/5/2011	11.7	<0.0293
100511-FB9A-11.8	10/5/2011	11.8	<0.782
<b>MTCA Cleanup Levels for Soil</b>			<b>5<sup>3</sup></b>

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface (bgs).

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method 8260B.

<sup>3</sup>Washington State Department of Ecology Model Toxics Control Act (MTCA) Cleanup Regulation Method A Soil Cleanup Level, Chapter 173-340 of

<sup>4</sup>MTCA Cleanup Levels and Risk Calculations Standard Method B Formula Values, Version 3.1, updated November 2007.

**Table 4**  
**Summary of Soil Analytical Results--Metals**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

Sample Identification	Sample Date	Depth (feet bgs) <sup>1</sup>	Soil Analytical Results (milligrams per kilogram) <sup>2</sup>							
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Silver	Zinc
082511-FB1-9.5	8/25/2011	9.5	<3.3	<0.56	7.3	8.0	<1.7	<0.020	<1.1	23
082511-FB2-5.2	8/25/2011	5.2	6.0	<0.47	9.3	270	50	<0.095	<0.93	120
082511-FB2-16.0	8/25/2011	16.0	8.9	<0.93	13	29	3.7	0.030	<1.9	38
082511-FB3-14.9	8/25/2011	14.9	8.8	<0.82	15	32	3.8	0.038	<1.6	37
082511-FB4-8.7	8/25/2011	8.7	<3.5	<0.59	7.7	11	<1.8	<0.018	<1.2	21
082511-FB5-6.2	8/25/2011	6.2	6.5	1.1	21	180	73	1.4	<1.3	200
082511-FB5-10.2	8/25/2011	10.2	9.8	0.61	20	75	19	0.099	<0.99	120
082511-FB5-18.0	8/25/2011	18.0	6.4	<0.68	13	21	4.0	0.039	<1.4	39
082611-FB6-1.1	8/26/2011	1.1	7.5	1.9	25	97	99	0.15	<1.3	320
082611-FB6-11.6	8/26/2011	11.6	5.1	<0.66	15	21	50	0.038	<1.3	30
082611-FB7-11.8	8/26/2011	11.8	9.8	<0.71	19	26	3.7	<0.046	<1.4	39
082611-FB8-11.6	8/26/2011	11.6	7.4	<0.84	18	30	13	<0.094	<1.7	45
082611-FB9-12.0	8/26/2011	12.0	9.0	<0.70	17	43	7.7	0.060	<1.4	62
<b>MTCA Cleanup Levels for Soil</b>			<b>20<sup>3</sup></b>	<b>2<sup>3</sup></b>	<b>2,000<sup>3</sup></b>	<b>3200<sup>4</sup></b>	<b>250<sup>3</sup></b>	<b>2<sup>3</sup></b>	<b>400<sup>4</sup></b>	<b>2,400<sup>4</sup></b>

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface (bgs).

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method 6010B/7471A.

<sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

<sup>4</sup>MTCA Cleanup Levels and Risk Calculations Standard Method B Formula Values, Version 3.1, updated November 2007.

**Table 5**  
**Summary of Reconnaissance Groundwater Analytical Results--Total Petroleum Hydrocarbons**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

Sample Identification	Sample Date	Analytical Results (micrograms per liter)						
		GRO <sup>1</sup>	DRO <sup>2</sup>	ORO <sup>2</sup>	Benzene <sup>1</sup>	Toluene <sup>1</sup>	Ethylbenzene <sup>1</sup>	Total Xylenes <sup>1</sup>
082511-FB1-GW	8/25/2011	<50	270	310	<0.50	0.95	<0.50	<1.0
082511-FB2-GW	8/25/2011	<50	270	430	--	--	--	--
082511-FB3-GW	8/25/2011	<50	<b>560</b>	<b>520</b>	--	--	--	--
082511-FB4-GW	8/25/2011	--	280	360	--	--	--	--
082511-FB5-GW	8/25/2011	--	--	--	--	--	--	--
082511-FB6-GW	8/26/2011	--	180	280	--	--	--	--
082511-FB7-GW	8/26/2011	<50	190	360	<0.50	<0.50	<0.50	<1.0
082511-FB8-GW	8/26/2011	<50	<b>600</b>	<b>910</b>	<0.50	<0.50	<0.50	<1.0
082511-FB9-GW	8/26/2011	<50	210	370	--	--	--	--
<b>MTCA Method A Cleanup Levels<sup>3</sup></b>		<b>1000 / 800<sup>4</sup></b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1,000</b>	<b>700</b>	<b>1,000</b>

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

-- denotes sample not analyzed

<sup>1</sup>Analyzed by Northwest Method NWTPH-Gx/BTEX.

<sup>2</sup>Analyzed by Northwest Method NWTPH-Dx.

<sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Groundwater Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code,

<sup>4</sup>Cleanup level without / with the presence of benzene.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

ORO = TPH as oil-range organics

**Table 6**  
**Summary of Reconnaissance Groundwater Analytical Results--Polycyclic Aromatic Hydrocarbons**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

<b>Sample Identification</b>	<b>Sample Date</b>	<b>Analytical Results<sup>1</sup></b> (micrograms per kilogram)							
		<b>Naphthalenes</b>	<b>Benzo(a)pyrene</b>	<b>Chrysene</b>	<b>Dibenz(a,h)anthracene</b>	<b>Indeno(1,2,3-c,d)pyrene</b>	<b>Benzo(a)anthracene</b>	<b>Benzo(b)fluoranthene</b>	<b>Benzo(k)fluoranthene</b>
082511-FB1-GW	8/25/2011	0.11	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
082511-FB2-GW	8/25/2011	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
082511-FB3-GW	8/25/2011	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
082511-FB4-GW	8/25/2011	<0.096	<0.19	<0.096	<0.096	<0.096	<0.096	<0.096	<0.096
082511-FB5-GW	8/25/2011	--	--	--	--	--	--	--	--
082511-FB6-GW	8/26/2011	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
082511-FB7-GW	8/26/2011	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
082511-FB8-GW	8/26/2011	<0.098	<0.20	<0.098	<0.098	<0.098	<0.098	<0.098	<0.098
082511-FB9-GW	8/26/2011	<0.098	<0.20	<0.098	<0.098	<0.098	<0.098	<0.098	<0.098
<b>MTCA Method A Cleanup Level for Groundwater<sup>2</sup></b>		<b>160<sup>3</sup></b>	cPAH cleanup levels are determined by toxicity equivalency methodology						

NOTES:

< denotes analyte not detected at or above the reporting limit listed.

cPAHs = carcinogenic polycyclic aromatic hydrocarbons

-- denotes sample not analyzed

<sup>1</sup>Analyzed by U.S. Environmental Protection Agency Method 8270D.

<sup>2</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

<sup>3</sup>Cleanup level is based on the total concentration for naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene.

**Table 7**  
**Summary of Reconnaissance Groundwater Analytical Results--Volatile Organic Compounds**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

<b>Sample Identification</b>	<b>Sample Date</b>	<b>Analytical Results<sup>1</sup></b> (micrograms per liter)
		<b>cis-1,2-Dichloroethene</b>
082511-FB1-GW	8/25/2011	--
082511-FB2-GW	8/25/2011	<1.0
082511-FB3-GW	8/25/2011	2.0
082511-FB4-GW	8/25/2011	<1.0
082511-FB5-GW	8/25/2011	<1.0
082511-FB6-GW	8/26/2011	--
082511-FB7-GW	8/26/2011	--
082511-FB8-GW	8/26/2011	--
082511-FB9-GW	8/26/2011	<1.0
<b>MTCA Cleanup Levels for Water<sup>2</sup></b>		<b>16</b>

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

-- denotes sample not analyzed

<sup>1</sup> Analyzed by U.S. Environmental Protection Agency Method 8260B.

<sup>2</sup> MTCA Cleanup Levels and Risk Calculations Standard Method B Formula Values, Version 3.1, updated November 2007.

**Table 8**  
**Summary of Reconnaissance Groundwater Analytical Results--Metals**  
**Snopac Property**  
**Seattle, Washington**  
**Farallon PN: 879-009**

<b>Sample Identification</b>	<b>Sample Date</b>	<b>Analytical Results<sup>2</sup></b> (micrograms per liter)							
		<b>Arsenic</b>	<b>Cadmium</b>	<b>Total Chromium</b>	<b>Copper</b>	<b>Lead</b>	<b>Mercury</b>	<b>Silver</b>	<b>Zinc</b>
082511-FB1-GW	8/25/2011	<b>130</b>	<10	<b>82</b>	71	<30	<0.20	<20	270
082511-FB2-GW	8/25/2011	<60	<10	<b>61</b>	41	<30	<0.20	<20	110
082511-FB3-GW	8/25/2011	<60	<10	<25	<20	<30	<0.20	<20	<40
082511-FB4-GW	8/25/2011	<60	<10	45	56	<30	<0.20	<20	70
082511-FB5-GW	8/25/2011	<60	<10	<25	21	<30	<0.20	<20	<40
082511-FB6-GW	8/26/2011	<60	<10	33	35	<30	<0.20	<20	<40
082511-FB7-GW	8/26/2011	<60	<10	<25	<20	<30	<0.20	<20	<40
082511-FB8-GW	8/26/2011	<60	<10	<25	<20	<30	<0.20	<20	<40
082511-FB9-GW	8/26/2011	<60	<10	<25	<20	<30	<0.20	<20	<40
<b>MTCA Cleanup Levels for Groundwater</b>		<b>5<sup>3</sup></b>	<b>5<sup>3</sup></b>	<b>50<sup>3</sup></b>	<b>640<sup>4</sup></b>	<b>15<sup>3</sup></b>	<b>2<sup>3</sup></b>	<b>80<sup>4</sup></b>	<b>4,800<sup>4</sup></b>

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

-- denotes sample not analyzed

<sup>1</sup>Depth in feet below ground surface (bgs).

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method 6010B/7471A.

<sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Groundwater Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

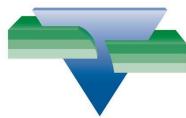
<sup>4</sup>MTCA Cleanup Levels and Risk Calculations Standard Method B Formula Values, Version 3.1, updated November 2007.

<sup>5</sup>Analytical results reported are for dissolved lead.

**ATTACHMENT A  
BORING LOGS**

SUBSURFACE INVESTIGATION RESULTS  
Snopac Property  
5055 East Marginal Way South  
Seattle, Washington

Farallon PN: 879-009



**FARALLON**  
consulting

975 5th Avenue Northwest  
Issaquah, Washington 98027

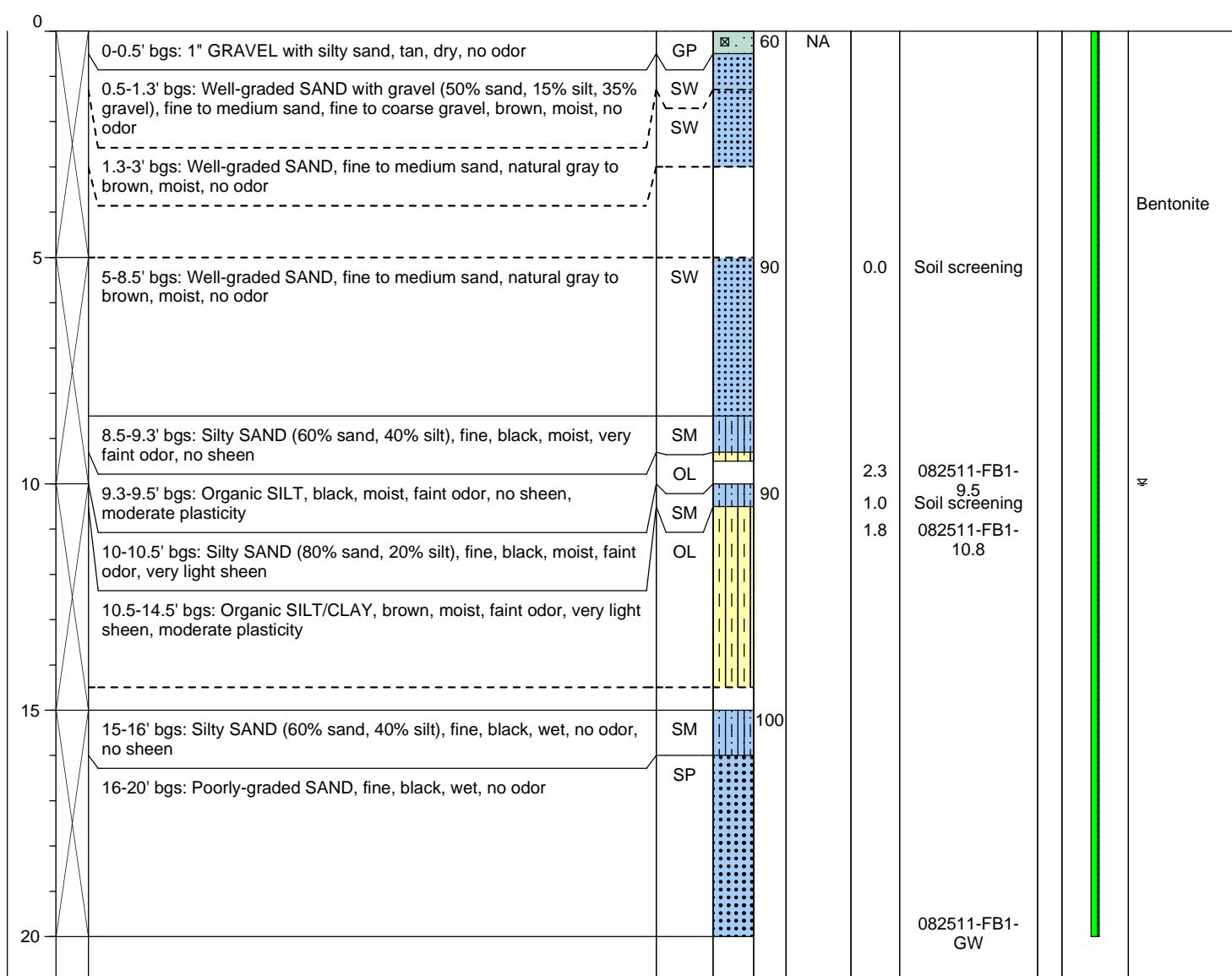
## Log of Boring: FB-1

Page 1 of 1

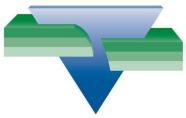
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 08-25-11 1030    **Sampler Type:** 5' Macrocore  
**Date/Time Completed:** 08-25-11 1140    **Drive Hammer (lbs.):** Auto  
**Equipment:** Powerprobe 6600    **Depth of Water ATD (ft bgs):** 10  
**Drilling Company:** Cascade Drilling    **Total Boring Depth (ft bgs):** 20  
**Drilling Foreman:** Lynn Goble    **Total Well Depth (ft bgs):** 20  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



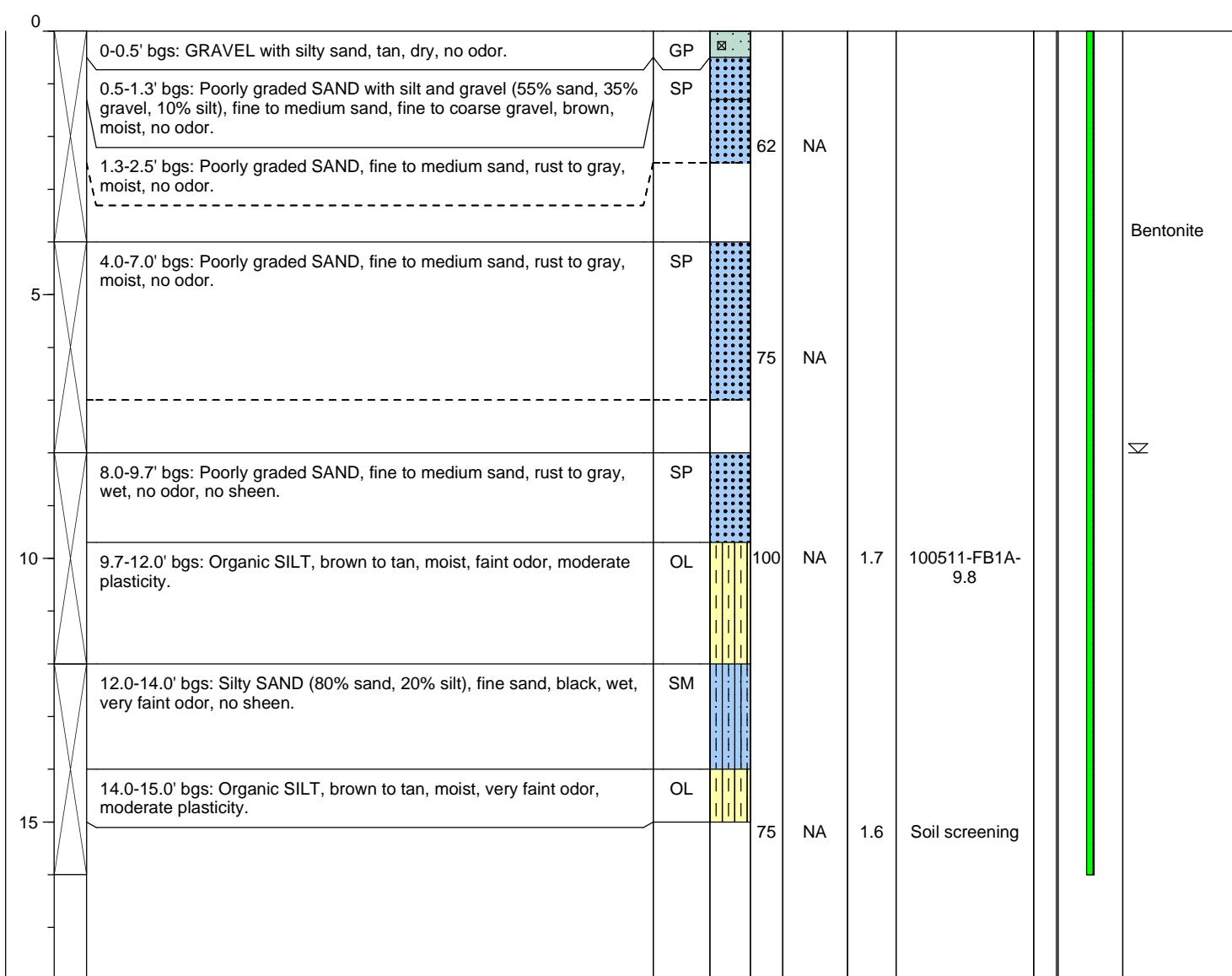
## Log of Boring: FB-1A

Page 1 of 1

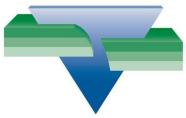
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 1400 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-05-11 1440 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 8.0  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 16.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



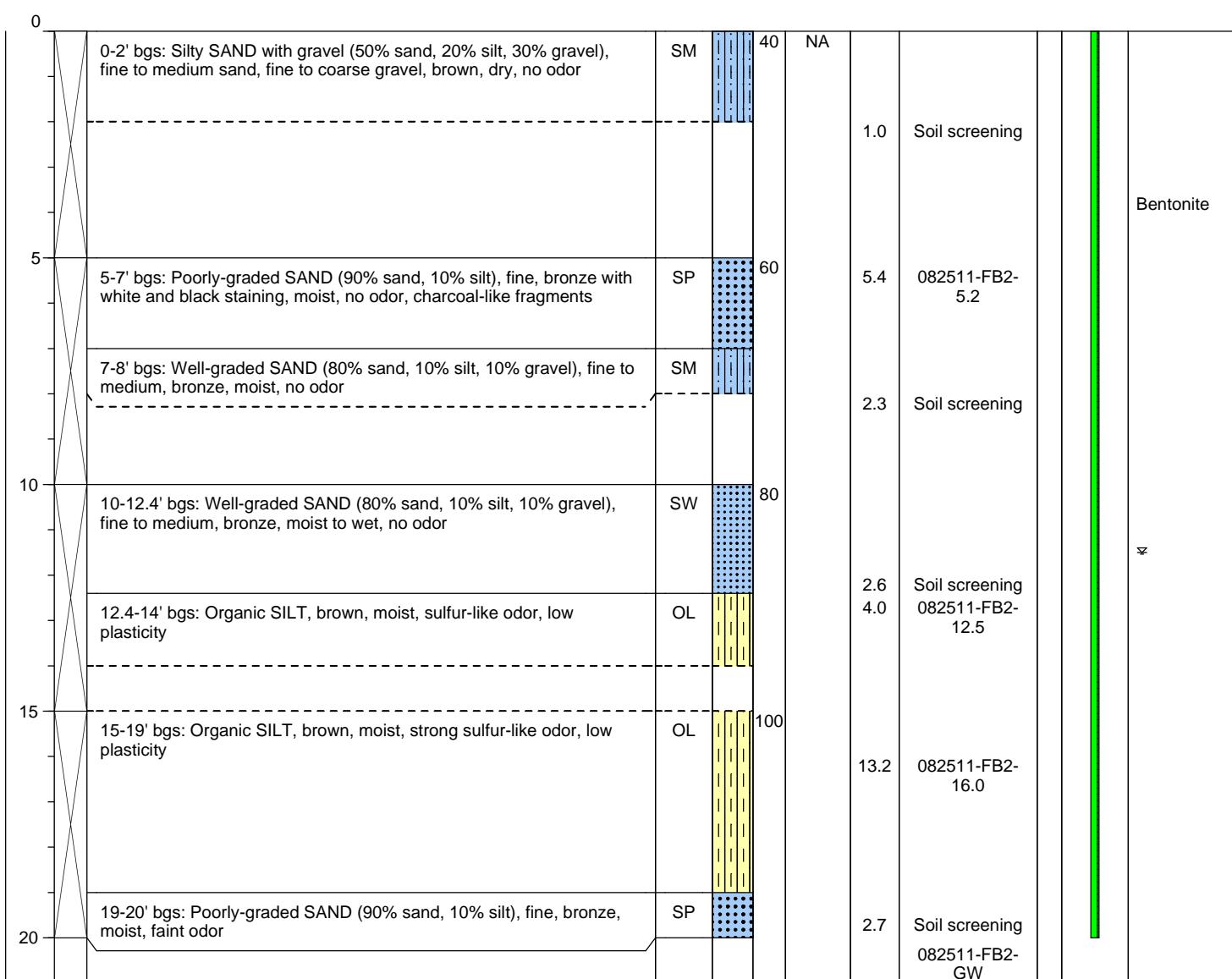
## Log of Boring: FB-2

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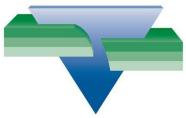
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 08-25-11 1320    **Sampler Type:** 5' Macrocore  
**Date/Time Completed:** 08-25-11 1510    **Drive Hammer (lbs.):** Auto  
**Equipment:** Powerprobe 6600    **Depth of Water ATD (ft bgs):** 11.5  
**Drilling Company:** Cascade Drilling    **Total Boring Depth (ft bgs):** 20  
**Drilling Foreman:** Lynn Goble    **Total Well Depth (ft bgs):** 20  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



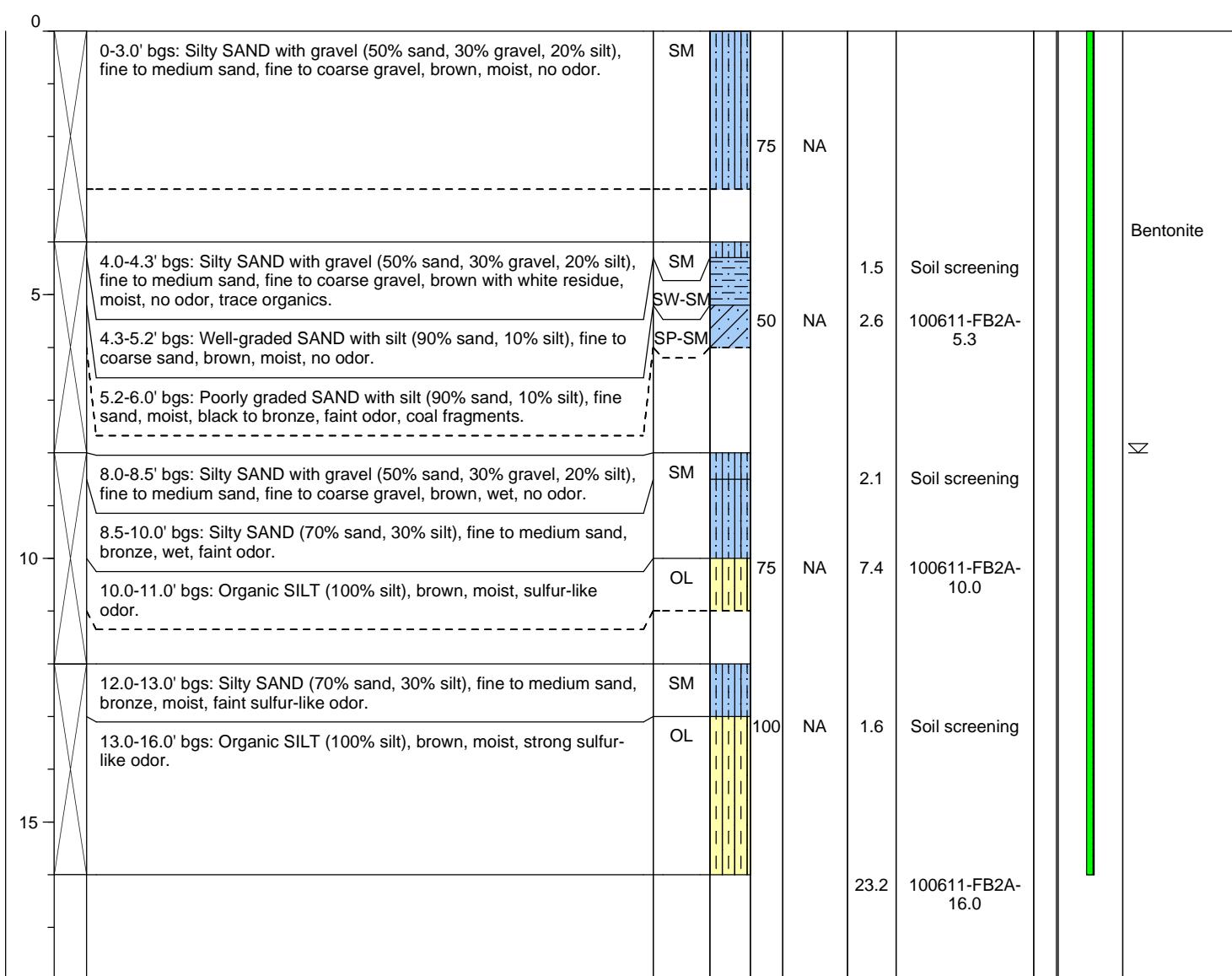
## Log of Boring: FB-2A

Page 1 of 1

**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 10-06-11 1200    **Sampler Type:** 4' Macrocore  
**Date/Time Completed:** 10-06-11 1300    **Drive Hammer (lbs.):** Auto  
**Equipment:** Geoprobe    **Depth of Water ATD (ft bgs):** 8.0  
**Drilling Company:** ESN Drilling    **Total Boring Depth (ft bgs):** 16.0  
**Drilling Foreman:** John Mefford    **Total Well Depth (ft bgs):** NA  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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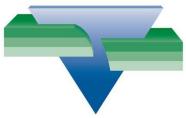


### Well Construction Information

**Monument Type:** NA  
**Casing Diameter (inches):** NA  
**Screen Slot Size (inches):** NA  
**Screened Interval (ft bgs):** NA

**Filter Pack:** NA  
**Surface Seal:** Gravel/Bentonite  
**Annular Seal:** NA

**Ground Surface Elevation (ft):** NA  
**Top of Casing Elevation (ft):** NA  
**Boring Abandonment:** Bentonite  
**Surveyed Location:** X: NA Y: NA



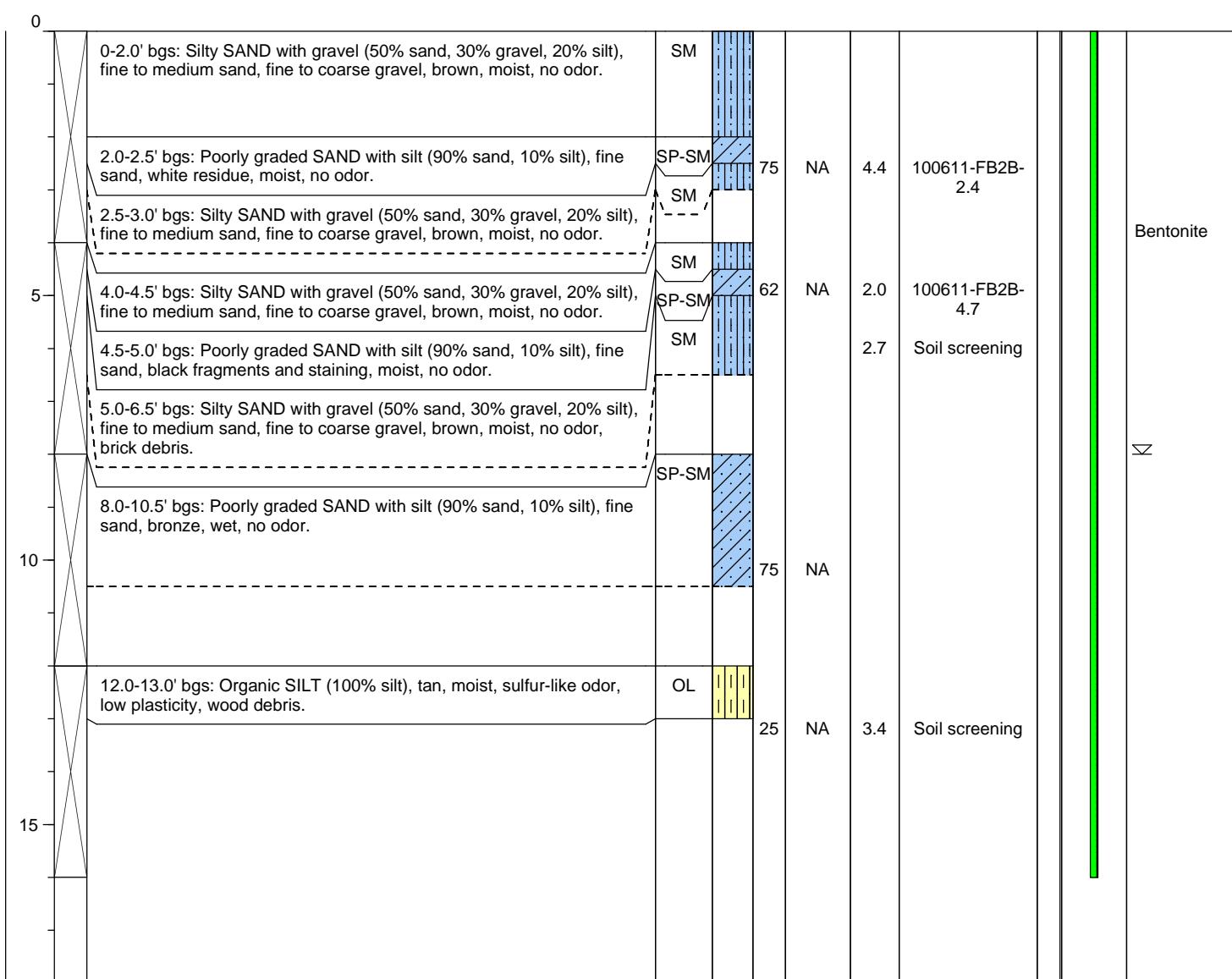
## Log of Boring: FB-2B

Page 1 of 1

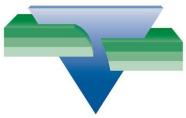
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 10-06-11 1305    **Sampler Type:** 4' Macrocore  
**Date/Time Completed:** 10-06-11 1330    **Drive Hammer (lbs.):** Auto  
**Equipment:** Geoprobe    **Depth of Water ATD (ft bgs):** 8.0  
**Drilling Company:** ESN Drilling    **Total Boring Depth (ft bgs):** 16.0  
**Drilling Foreman:** Martin Haun    **Total Well Depth (ft bgs):** NA  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



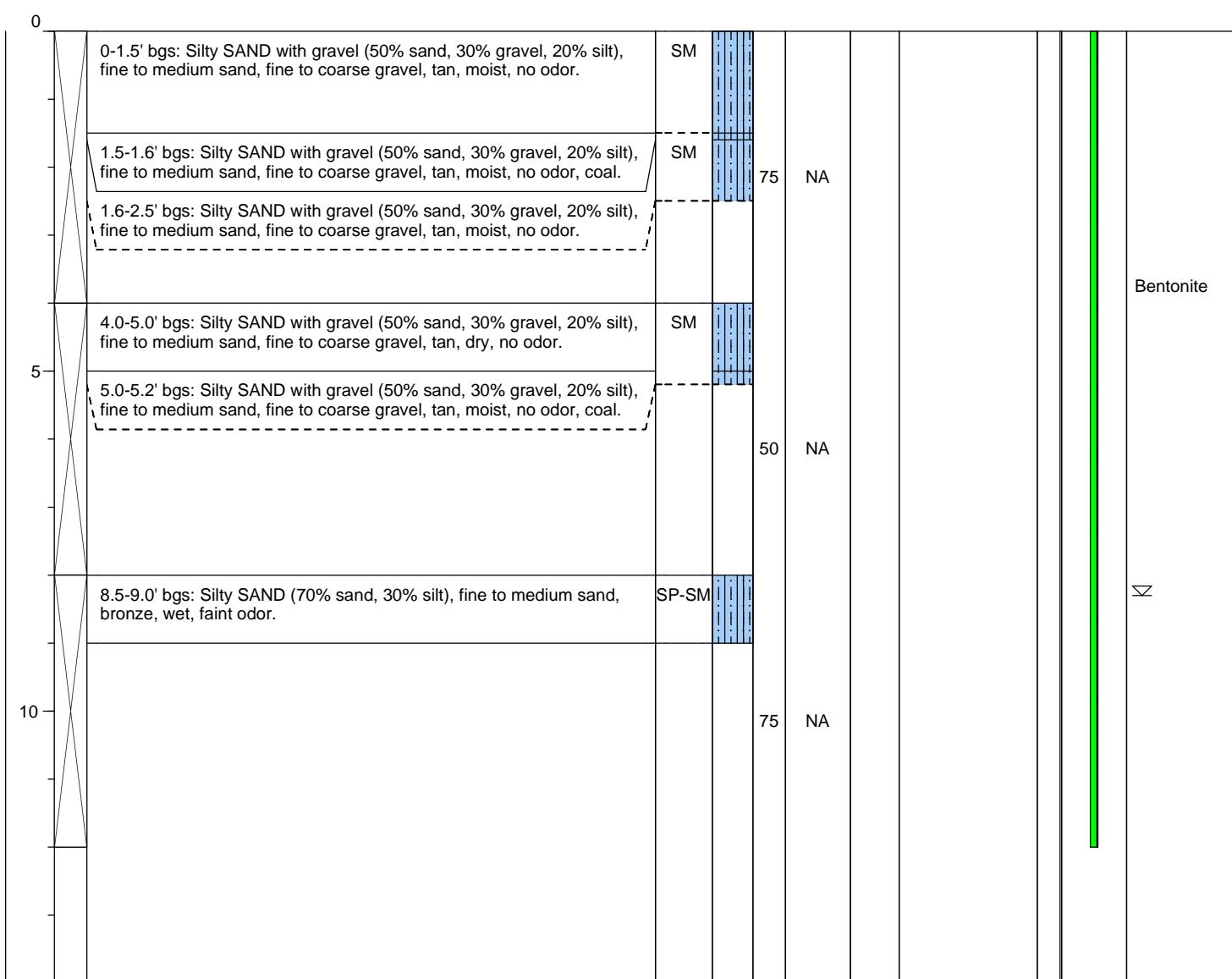
## Log of Boring: FB-2C

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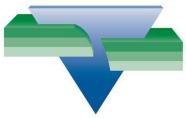
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 10-06-11 1330    **Sampler Type:** 4' Macrocore  
**Date/Time Completed:** 10-06-11 1400    **Drive Hammer (lbs.):** Auto  
**Equipment:** Geoprobe    **Depth of Water ATD (ft bgs):** 8.3  
**Drilling Company:** ESN Drilling    **Total Boring Depth (ft bgs):** 12.0  
**Drilling Foreman:** Martin Haun    **Total Well Depth (ft bgs):** NA  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs.):	NA				



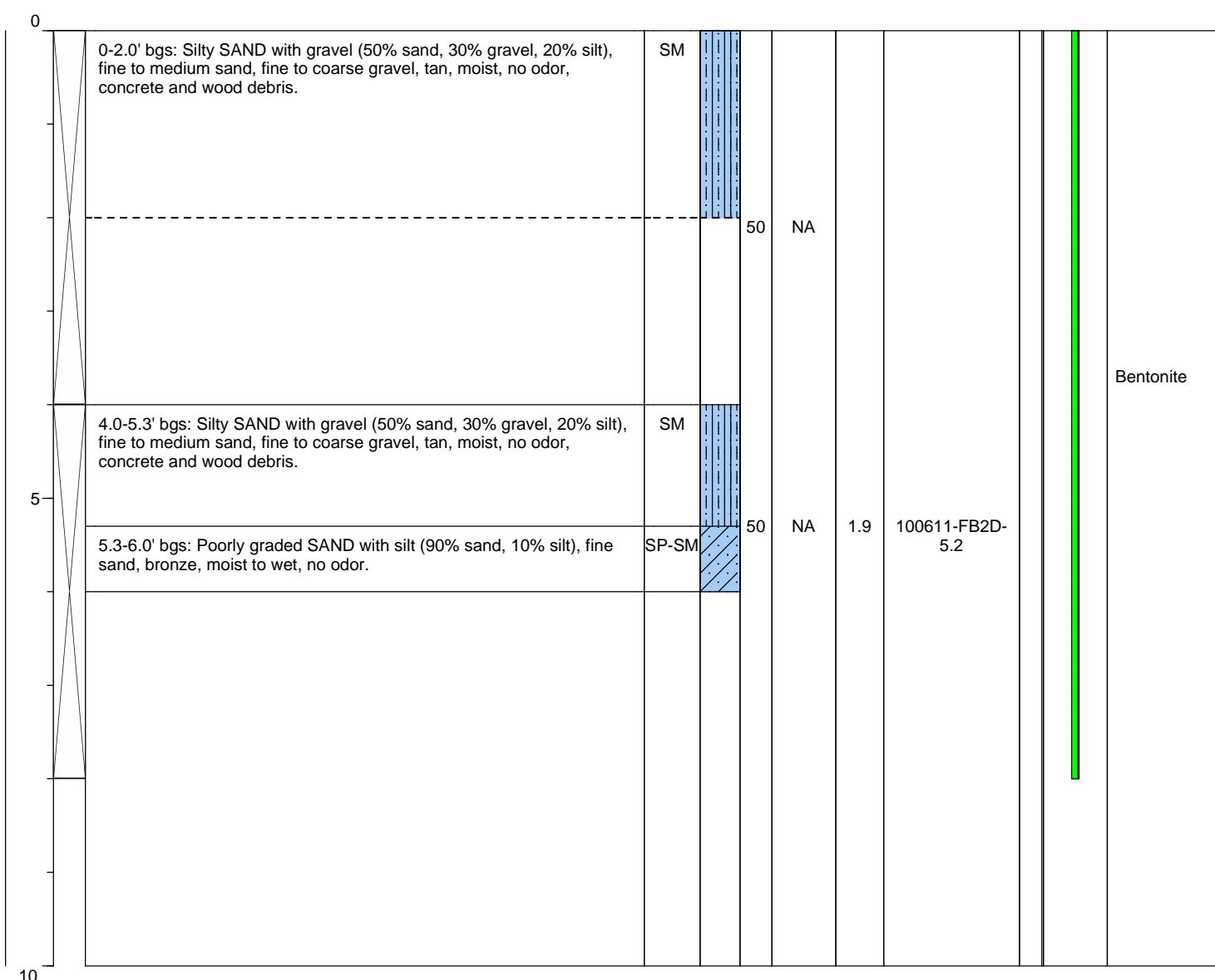
## Log of Boring: FB-2D

Page 1 of 1

**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-06-11 1400 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-06-11 1420 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): NE  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 8.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): NA

Screened Interval (ft bgs.): NA

### Well Construction Information

Filter Pack: NA

Surface Seal: Gravel/Bentonite

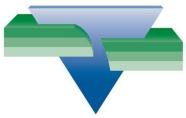
Annular Seal: NA

Ground Surface Elevation (ft): NA

Top of Casing Elevation (ft): NA

Boring Abandonment: Bentonite

Surveyed Location: X: NA Y: NA



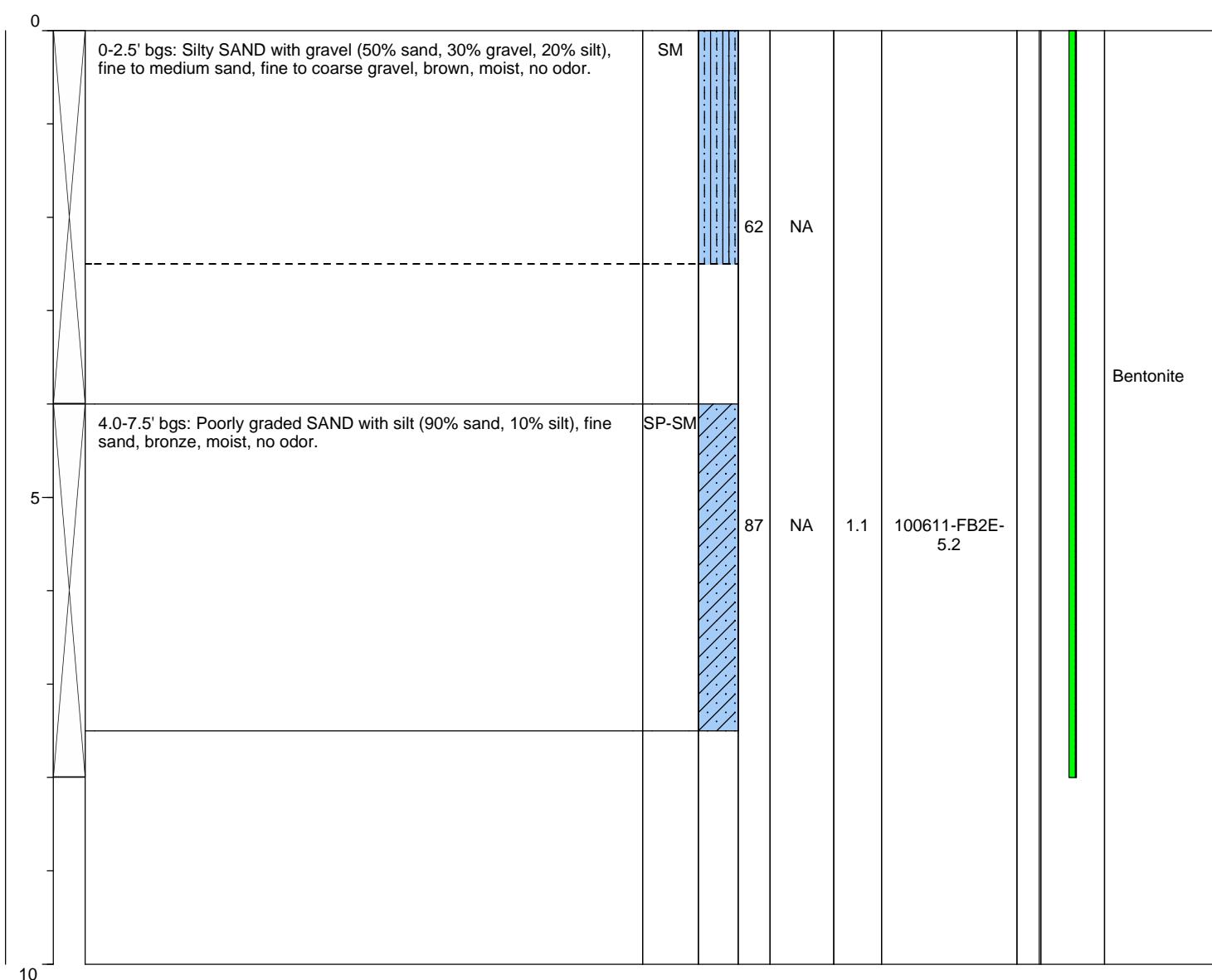
## Log of Boring: FB-2E

Page 1 of 1

**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-06-11 1425 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-06-11 1445 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): NE  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 8.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

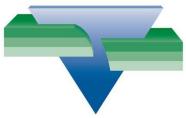
Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Monument Type: NA  
Casing Diameter (inches): NA  
Screen Slot Size (inches): NA  
Screened Interval (ft bgs): NA

**Well Construction Information**  
Filter Pack: NA  
Surface Seal: Gravel/Bentonite  
Annular Seal: NA

Ground Surface Elevation (ft): NA  
Top of Casing Elevation (ft): NA  
Boring Abandonment: Bentonite  
Surveyed Location: X: NA Y: NA



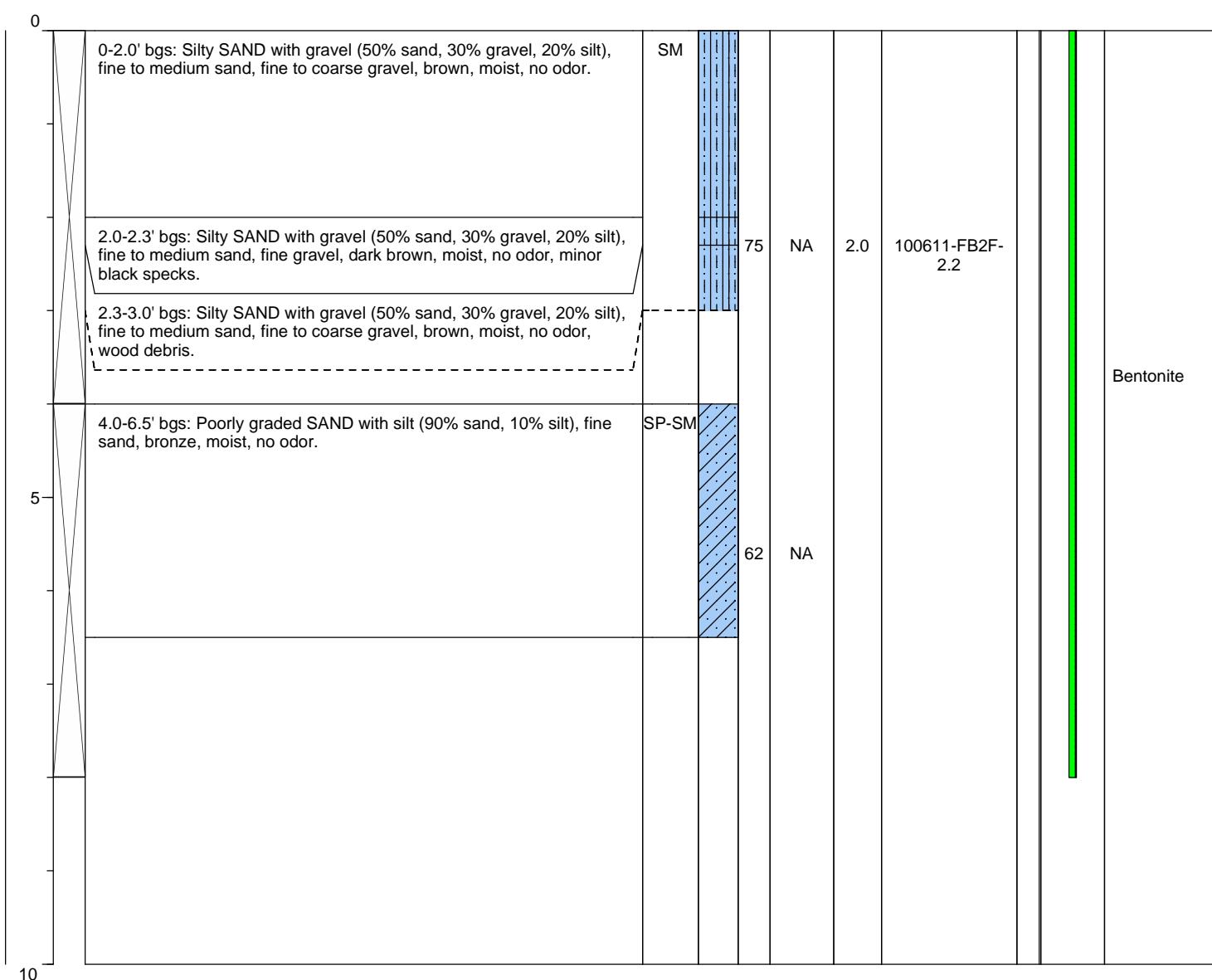
## Log of Boring: FB-2F

Page 1 of 1

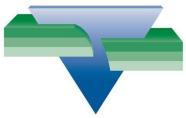
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-06-11 1445 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-06-11 1515 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): NE  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 8.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
-------------------	-----------------	------------------------	------	--------------	------------	-------------------	-----------	-----------	-----------------	----------------------------------



Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



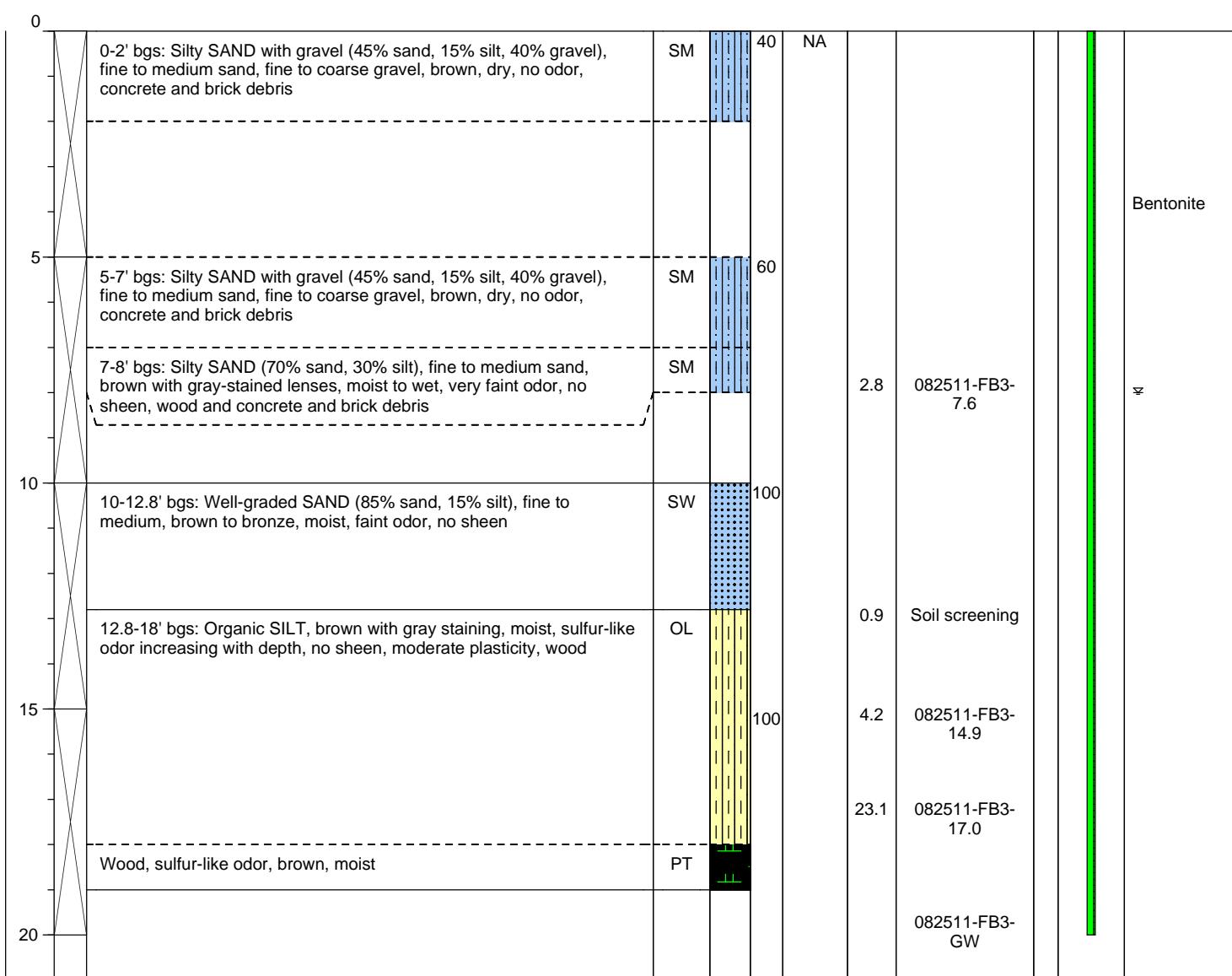
## Log of Boring: FB-3

Page 1 of 1

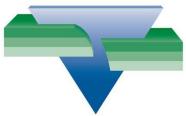
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 08-25-11 1600    **Sampler Type:** 5' Macrocore  
**Date/Time Completed:** 08-25-11 1720    **Drive Hammer (lbs.):** Auto  
**Equipment:** Powerprobe 6600    **Depth of Water ATD (ft bgs):** 8  
**Drilling Company:** Cascade Drilling    **Total Boring Depth (ft bgs):** 20  
**Drilling Foreman:** Lynn Goble    **Total Well Depth (ft bgs):** 20  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



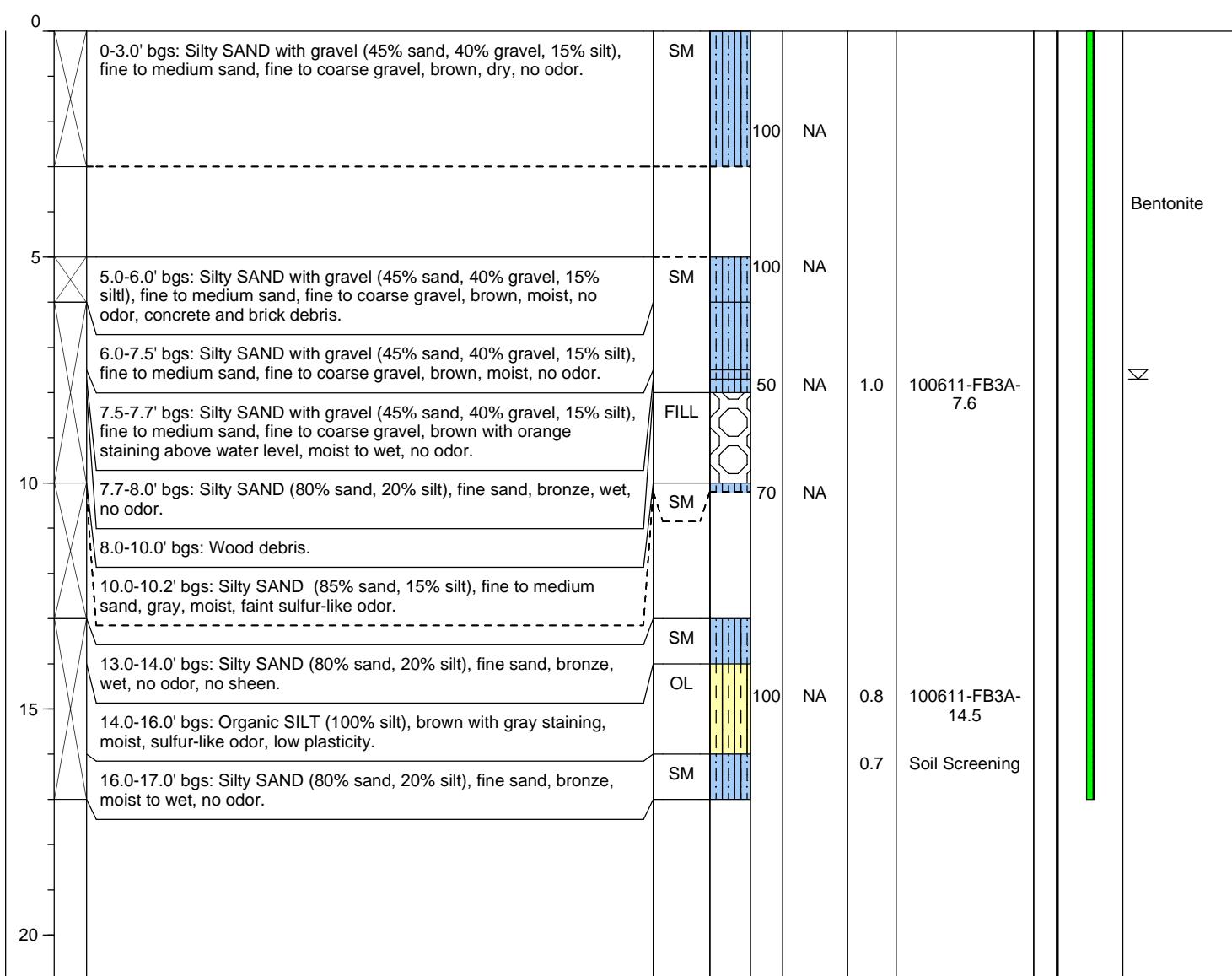
## Log of Boring: FB-3A

Page 1 of 1

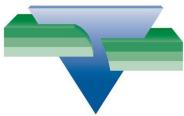
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-06-11 1515 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-06-11 1630 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 7.7  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 17.0  
Drilling Foreman: John Mefford Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



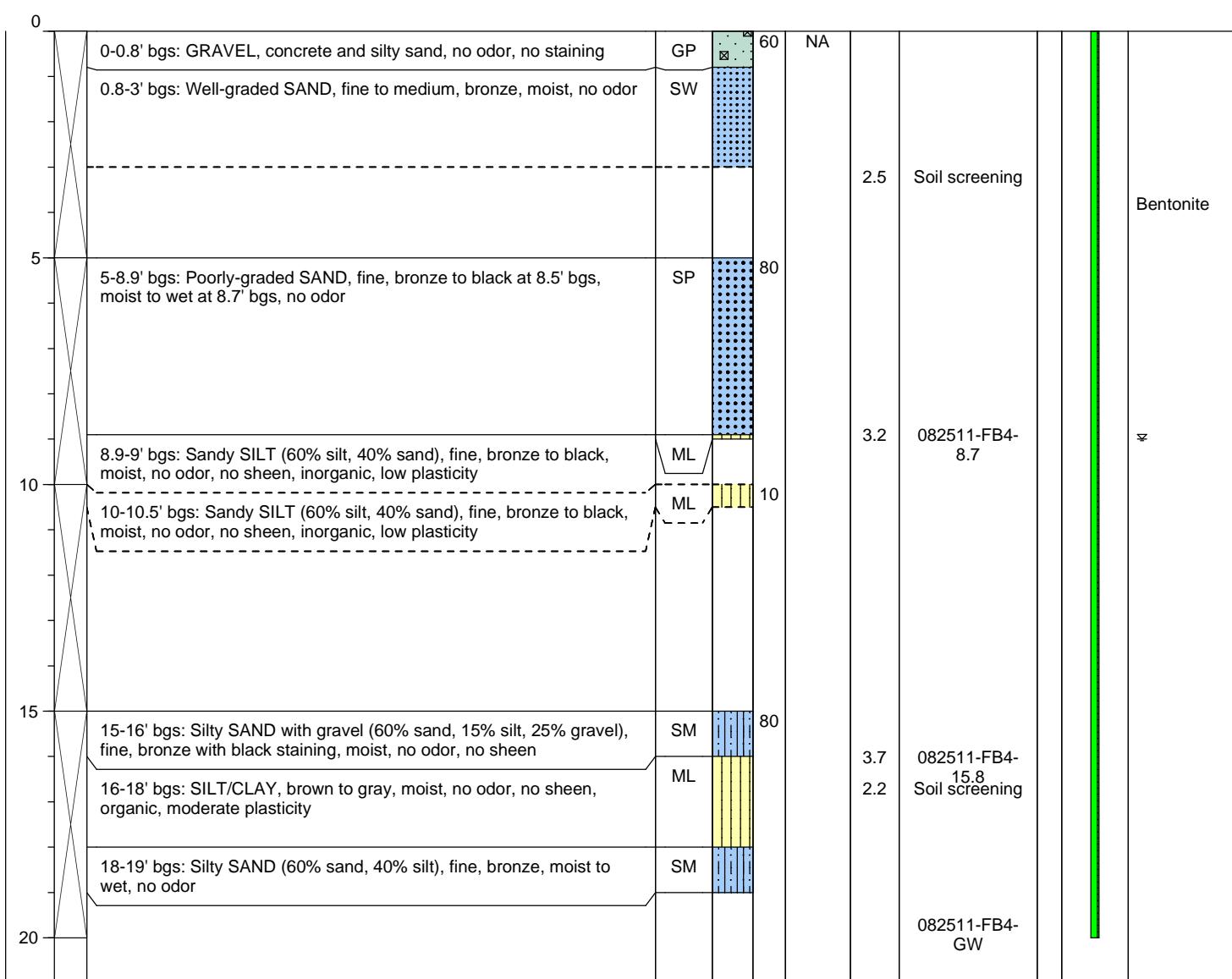
## Log of Boring: FB-4

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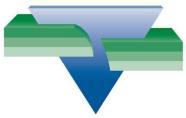
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 08-25-11 1140    **Sampler Type:** 5' Macrocore  
**Date/Time Completed:** 08-25-11 1300    **Drive Hammer (lbs.):** Auto  
**Equipment:** Powerprobe 6600    **Depth of Water ATD (ft bgs.):** 9  
**Drilling Company:** Cascade Drilling    **Total Boring Depth (ft bgs.):** 20  
**Drilling Foreman:** Lynn Goble    **Total Well Depth (ft bgs.):** 20  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



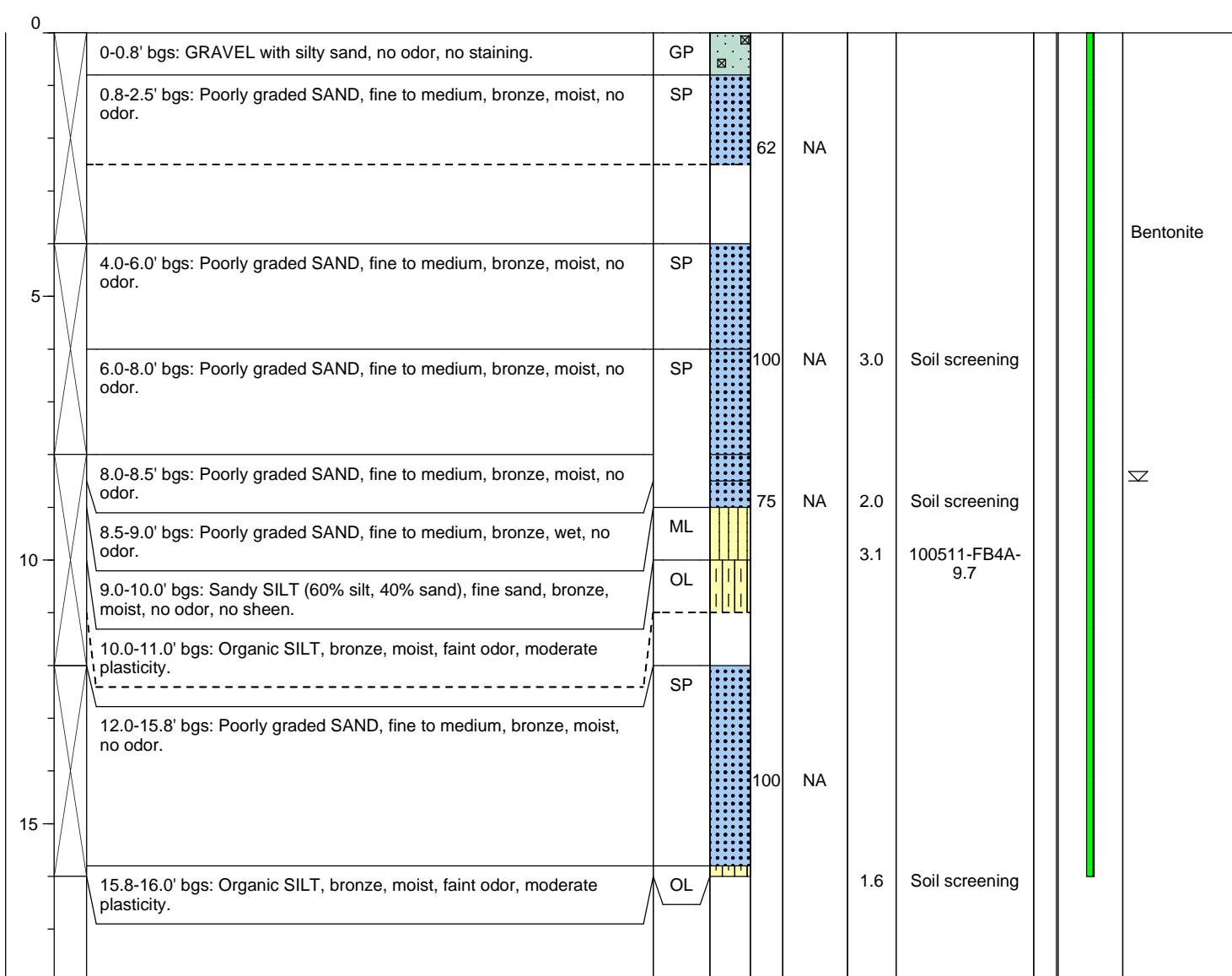
## Log of Boring: FB-4A

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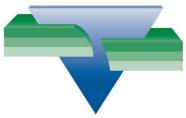
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 1445 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-05-11 1530 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 8.5  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 16.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



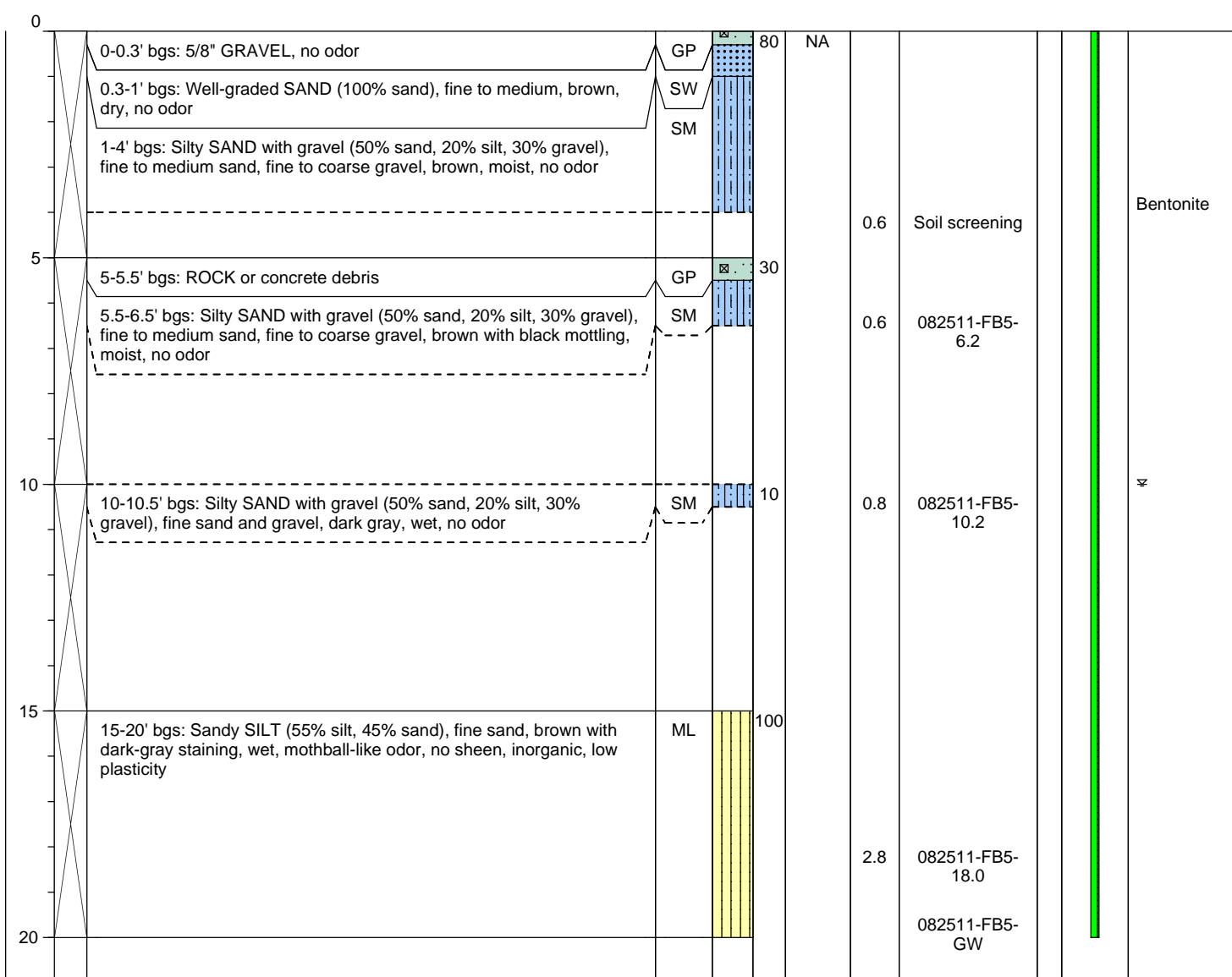
## Log of Boring: FB-5

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**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 08-25-11 1720 Sampler Type: 5' Macrocore  
Date/Time Completed: 08-25-11 1820 Drive Hammer (lbs.): Auto  
Equipment: Powerprobe 6600 Depth of Water ATD (ft bgs): 10  
Drilling Company: Cascade Drilling Total Boring Depth (ft bgs): 20  
Drilling Foreman: Lynn Goble Total Well Depth (ft bgs): 20  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): 0.020

Screened Interval (ft bgs): 15-20

### Well Construction Information

Filter Pack: NA

Surface Seal: Gravel/Bentonite

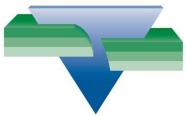
Annular Seal: NA

Ground Surface Elevation (ft): NA

Top of Casing Elevation (ft): NA

Boring Abandonment: Bentonite

Surveyed Location: X: NA Y: NA



## Log of Boring: FB-5A

Page 1 of 1

**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 Sampler Type: 4' Macrocore

Date/Time Completed: 10-05-11 Drive Hammer (lbs.): Auto

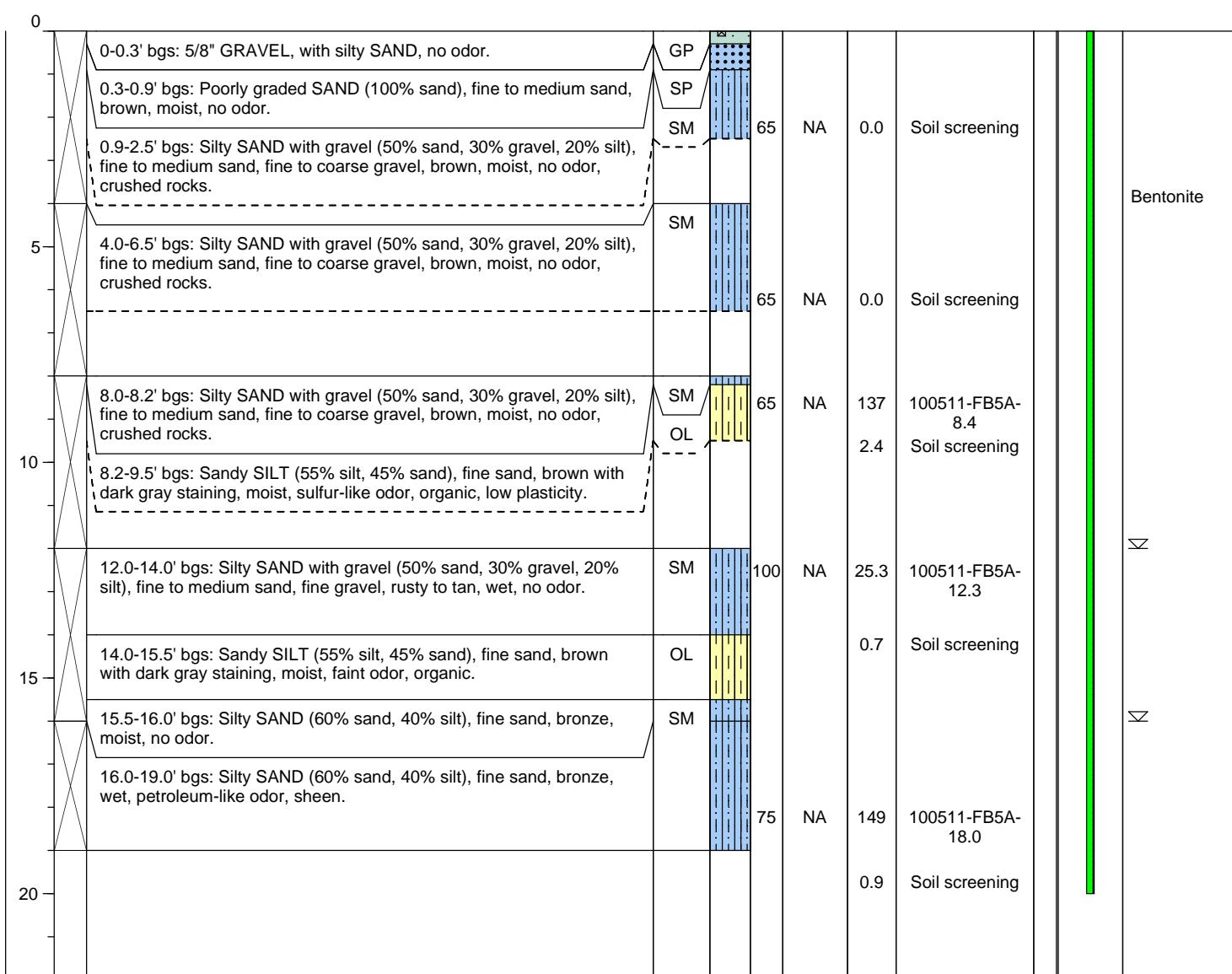
Equipment: Geoprobe Depth of Water ATD (ft bgs): 12.0, 16.0

Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 20.0

Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA

Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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### Well Construction Information

Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): NA

Screened Interval (ft bgs): NA

Filter Pack: NA

Surface Seal: Gravel/Bentonite

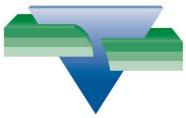
Annular Seal: NA

Ground Surface Elevation (ft): NA

Top of Casing Elevation (ft): NA

Boring Abandonment: Bentonite

Surveyed Location: X: NA Y: NA



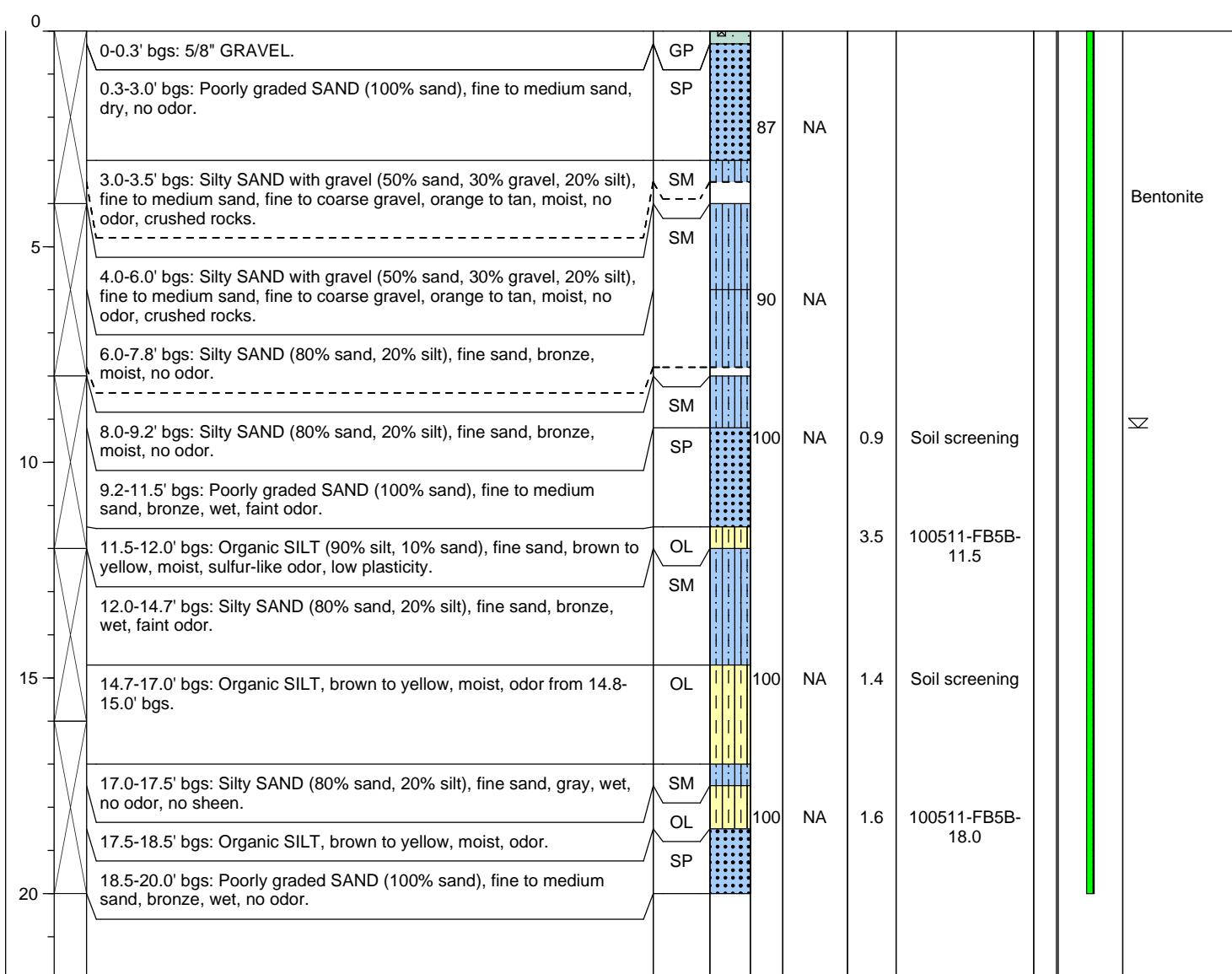
## Log of Boring: FB-5B

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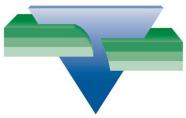
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 10-05-11 0920    **Sampler Type:** 4' Macrocore  
**Date/Time Completed:** 10-05-11    **Drive Hammer (lbs.):** Auto  
**Equipment:** Geoprobe    **Depth of Water ATD (ft bgs):** 9.2  
**Drilling Company:** ESN Drilling    **Total Boring Depth (ft bgs):** 20.0  
**Drilling Foreman:** Martin Haun    **Total Well Depth (ft bgs):** NA  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



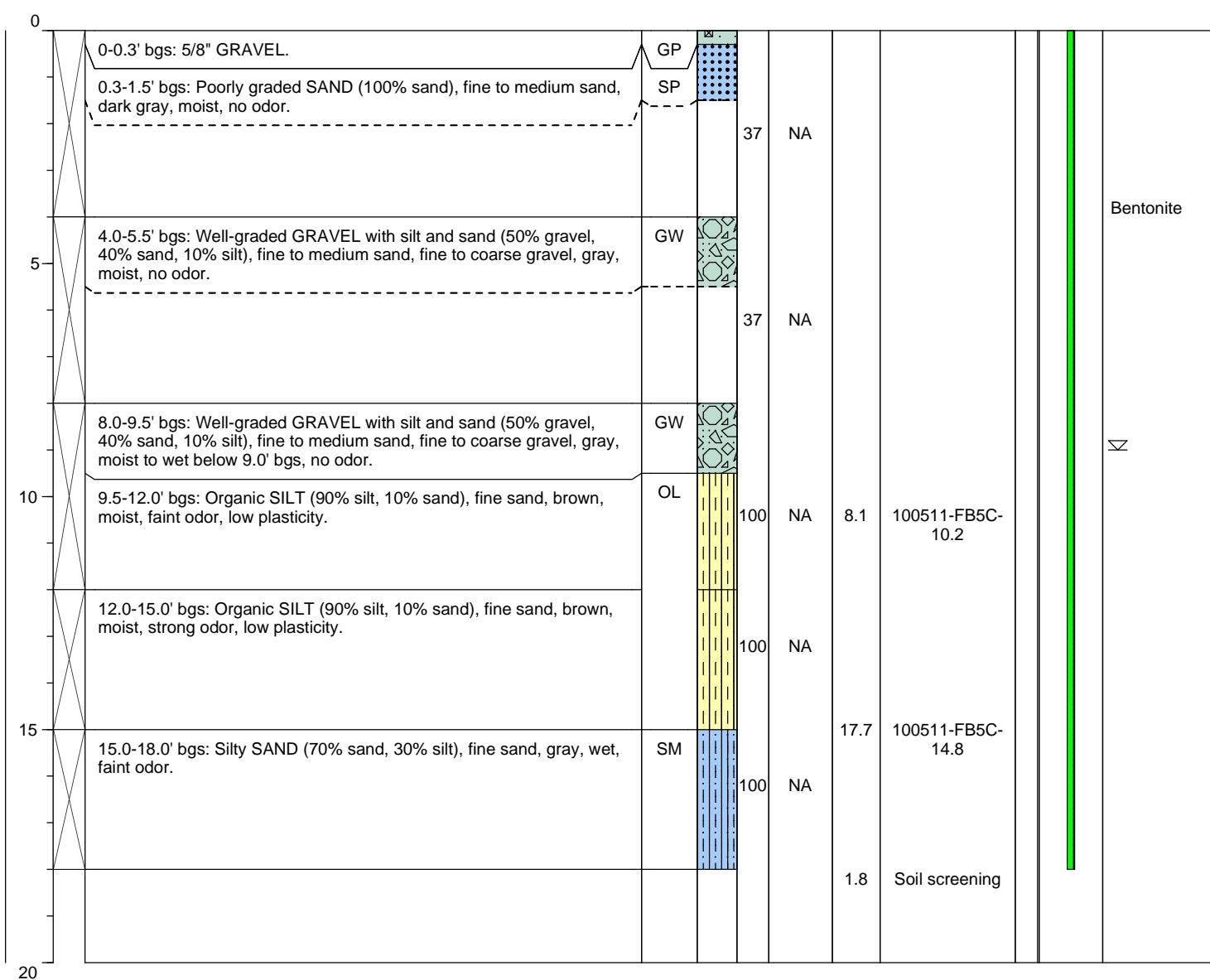
## Log of Boring: FB-5C

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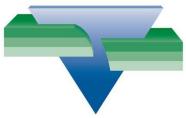
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 1030 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-05-11 1120 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 9.0  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 18.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



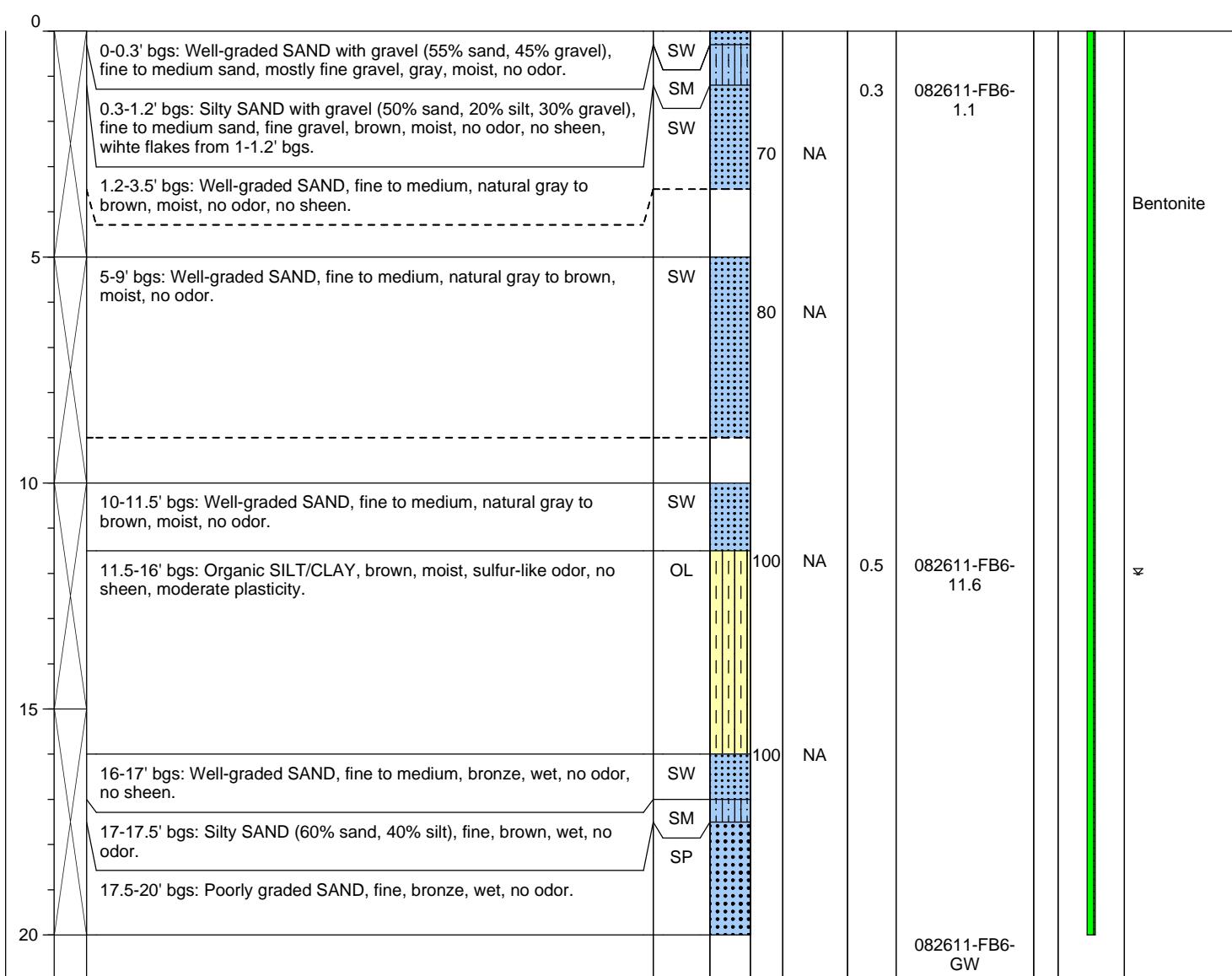
## Log of Boring: FB-6

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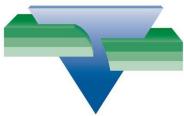
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 8-26-11 0738    **Sampler Type:** 5' Macrocore  
**Date/Time Completed:** 08-26-11 0900    **Drive Hammer (lbs.):** Auto  
**Equipment:** Powerprobe 6600    **Depth of Water ATD (ft bgs):** 12.0  
**Drilling Company:** Cascade Drilling    **Total Boring Depth (ft bgs):** 20.0  
**Drilling Foreman:** Lynn Goble    **Total Well Depth (ft bgs):** 20.0  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



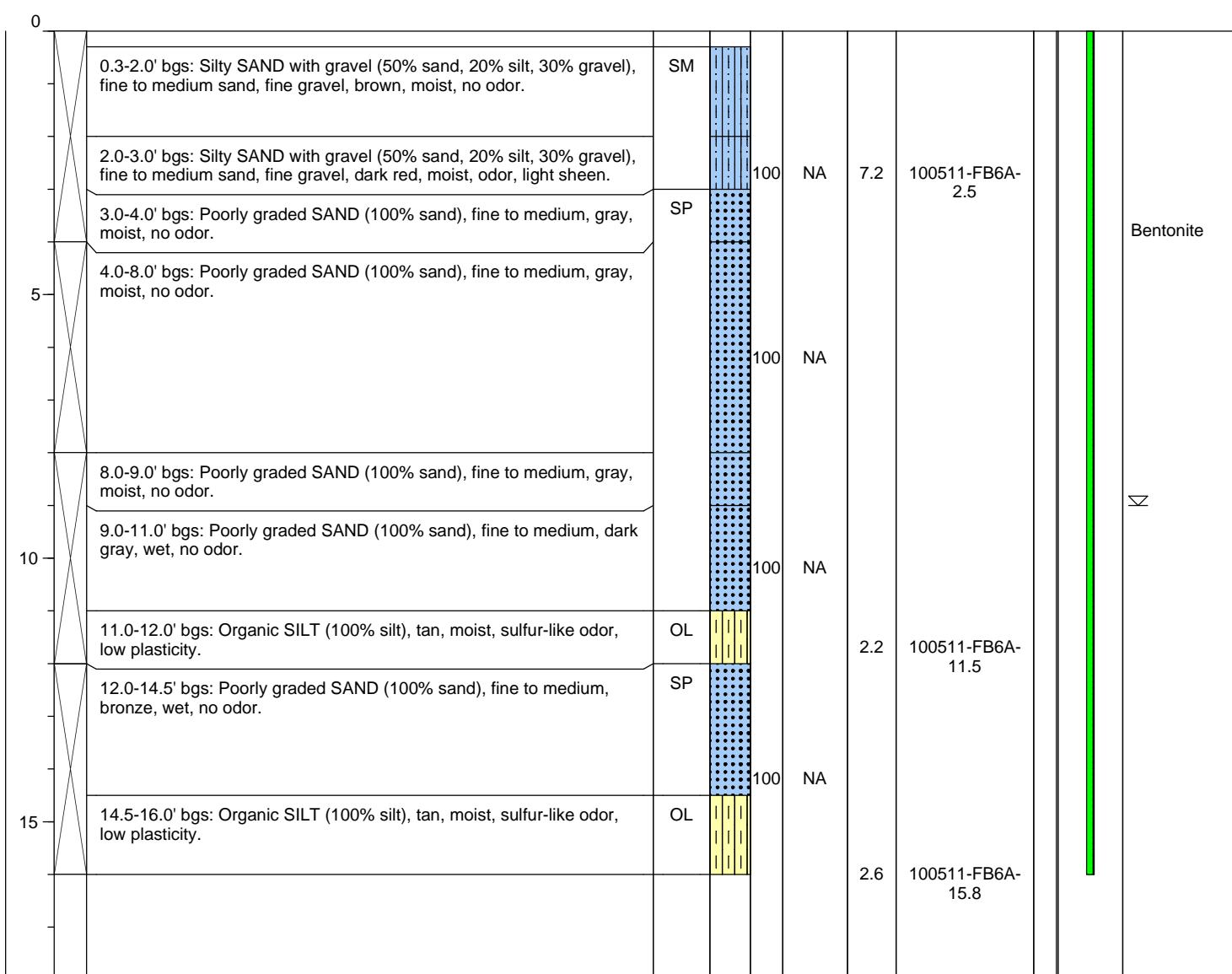
## Log of Boring: FB-6A

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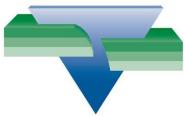
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 1110 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-05-11 1210 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 9.0  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 16.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



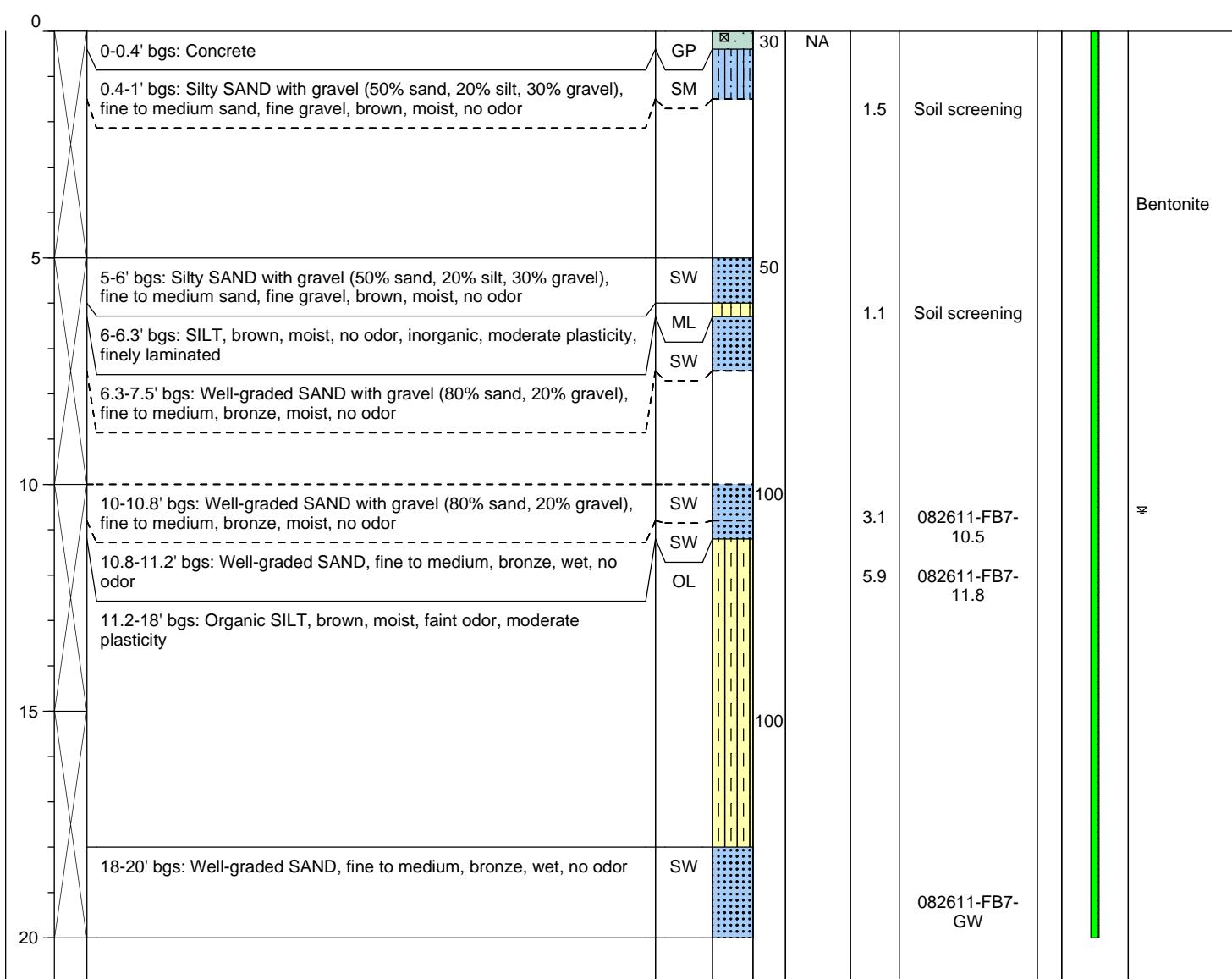
## Log of Boring: FB-7

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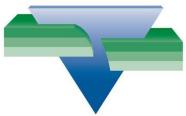
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 08-26-11 1045 Sampler Type: 5' Macrocore  
Date/Time Completed: 08-26-11 1200 Drive Hammer (lbs.): Auto  
Equipment: Powerprobe 6600 Depth of Water ATD (ft bgs): 10.6  
Drilling Company: Cascade Drilling Total Boring Depth (ft bgs): 20  
Drilling Foreman: Lynn Goble Total Well Depth (ft bgs): 20  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



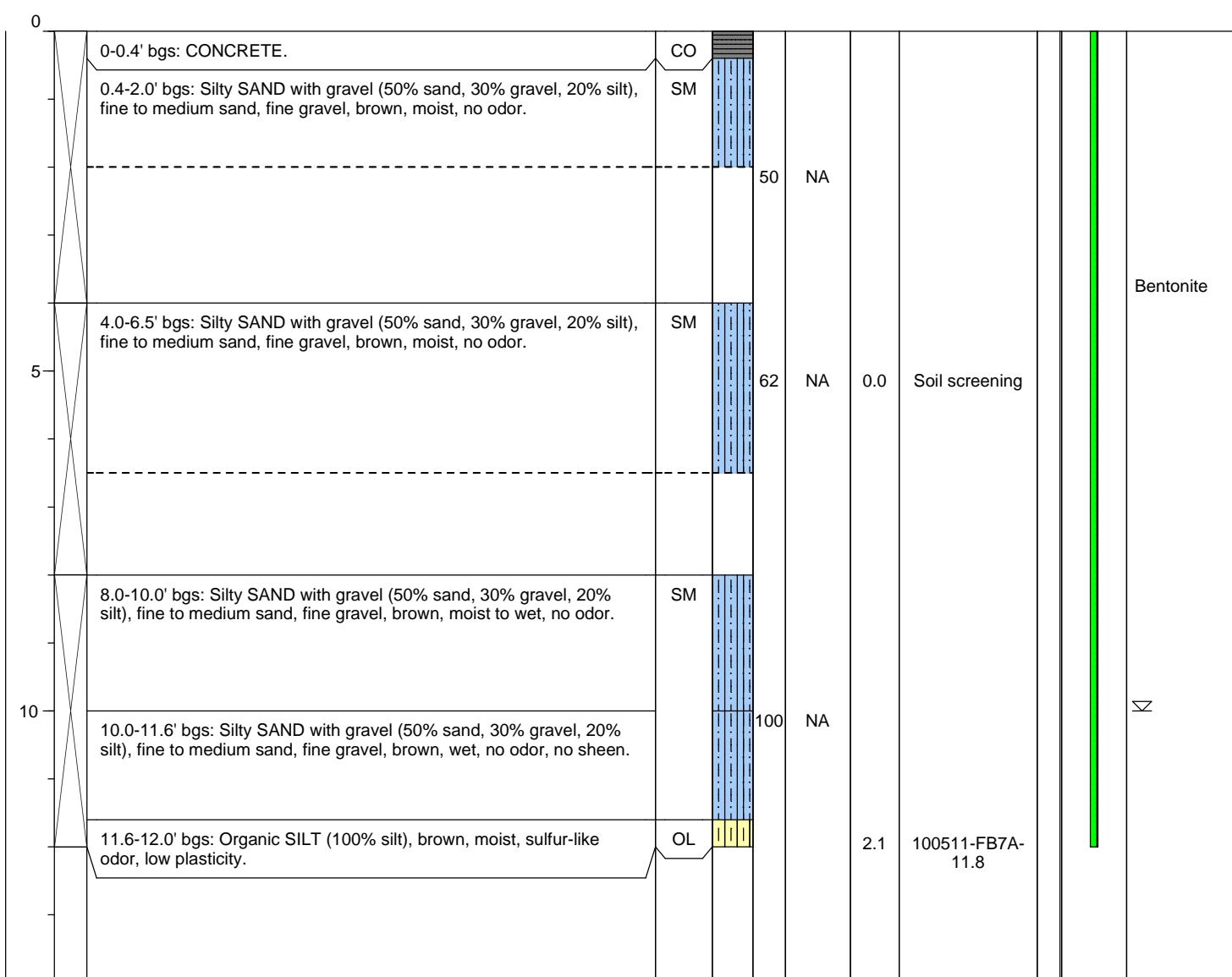
## Log of Boring: FB-7A

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**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 1310 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-05-11 1400 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 10.0  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 12.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): Na  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Monument Type: NA

Casing Diameter (inches): NA

Screen Slot Size (inches): NA

Screened Interval (ft bgs): NA

**Well Construction Information**

Filter Pack: NA

Surface Seal: Gravel/Bentonite

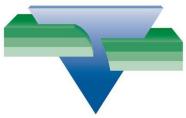
Annular Seal: NA

Ground Surface Elevation (ft): NA

Top of Casing Elevation (ft): NA

Boring Abandonment: Bentonite

Surveyed Location: X: NA Y: NA



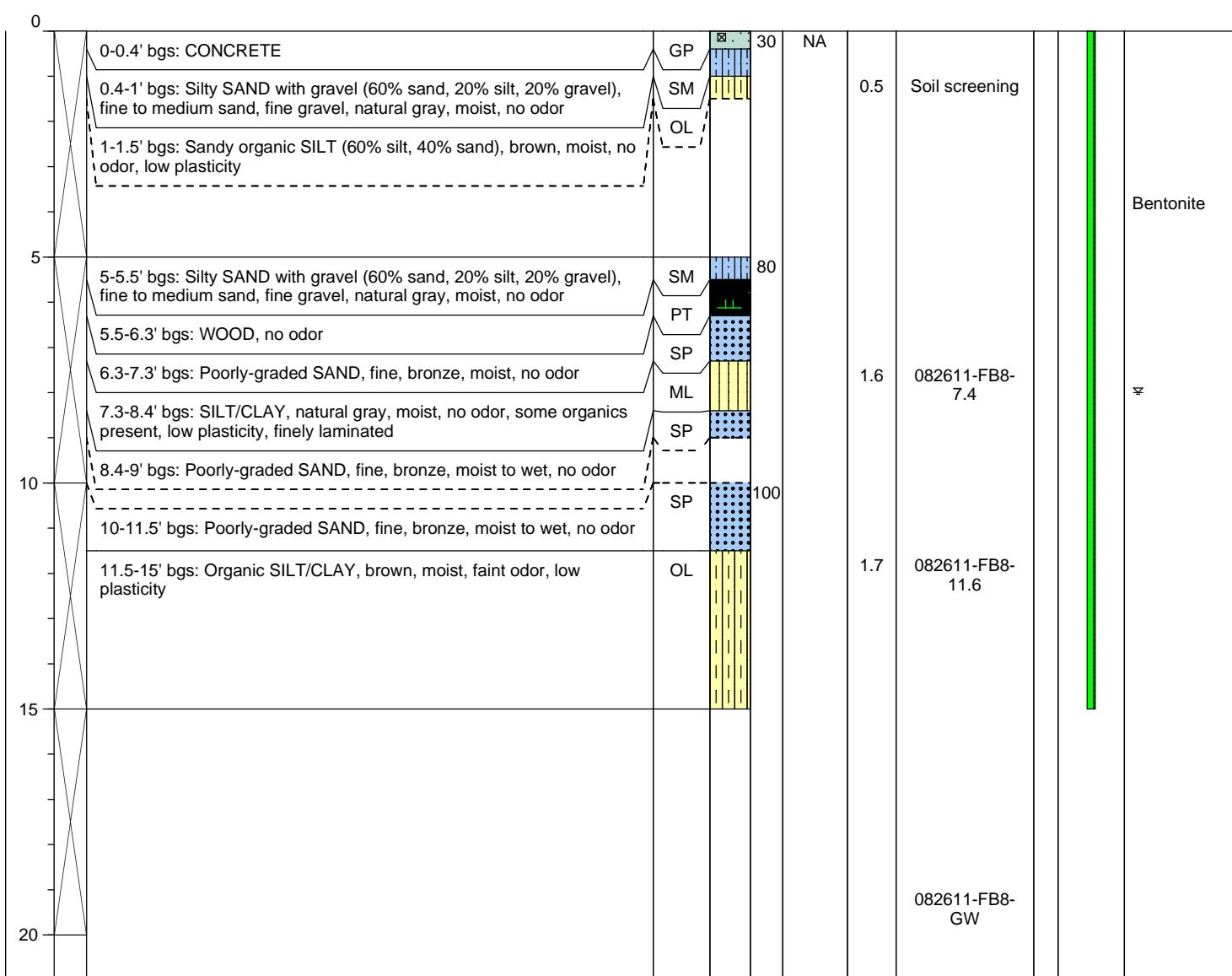
## Log of Boring: FB-8

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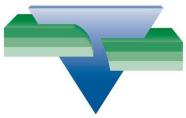
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 08-26-11 0945 Sampler Type: 5' Macrocore  
Date/Time Completed: 08-26-11 1045 Drive Hammer (lbs.): Auto  
Equipment: Powerprobe 6600 Depth of Water ATD (ft bgs): 8  
Drilling Company: Cascade Drilling Total Boring Depth (ft bgs): 15  
Drilling Foreman: Lynn Goble Total Well Depth (ft bgs): 14  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft): NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft): NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment: Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location: X: NA Y: NA
Screened Interval (ft bgs):	9-14			



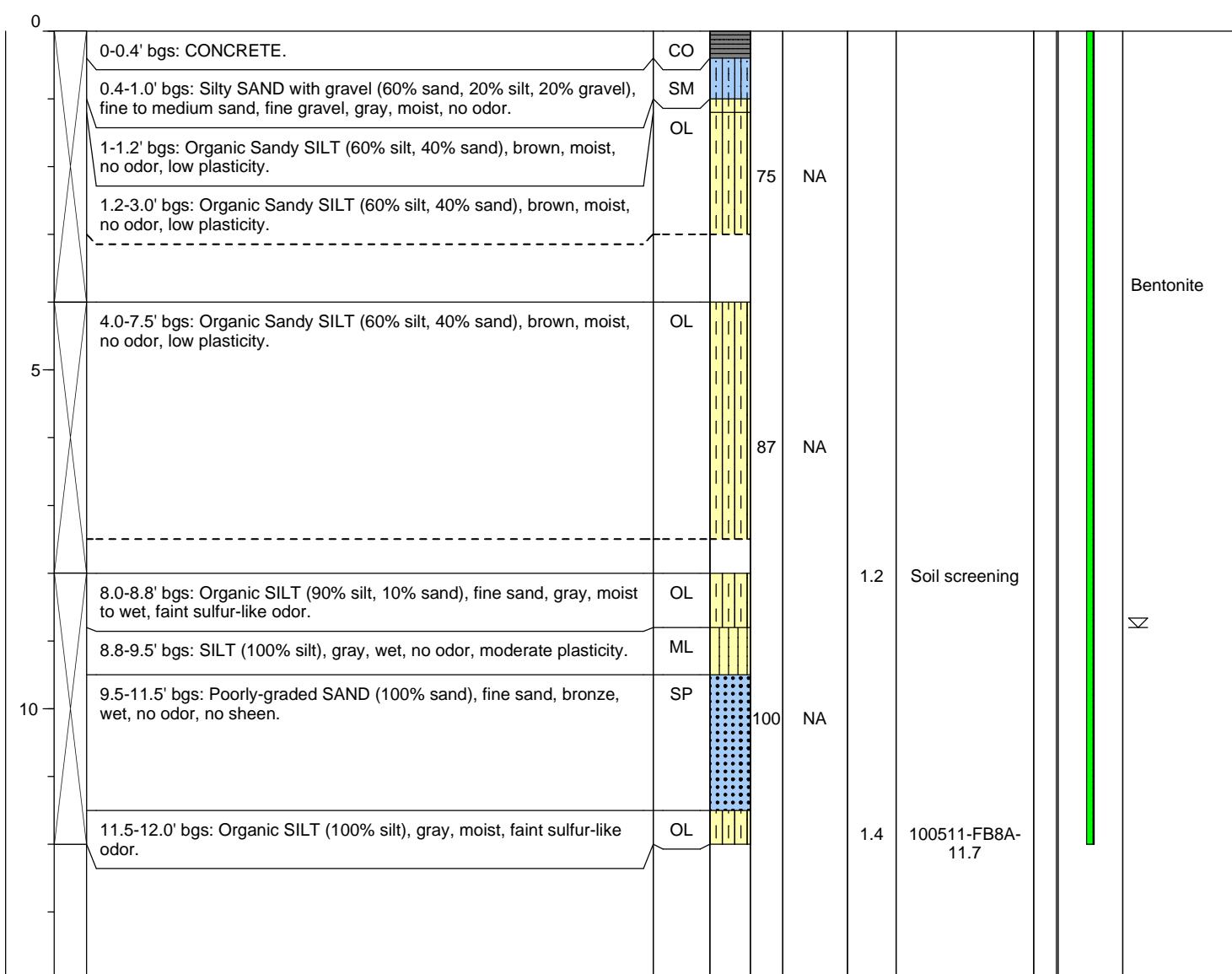
## Log of Boring: FB-8A

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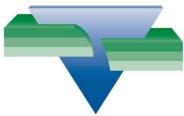
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 10-05-11 1210    **Sampler Type:** 4' Macrocore  
**Date/Time Completed:** 10-05-11 1310    **Drive Hammer (lbs.):** Auto  
**Equipment:** Geoprobe    **Depth of Water ATD (ft bgs):** 8.8  
**Drilling Company:** ESN Drilling    **Total Boring Depth (ft bgs):** 12.0  
**Drilling Foreman:** Martin Haun    **Total Well Depth (ft bgs):** Na  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				



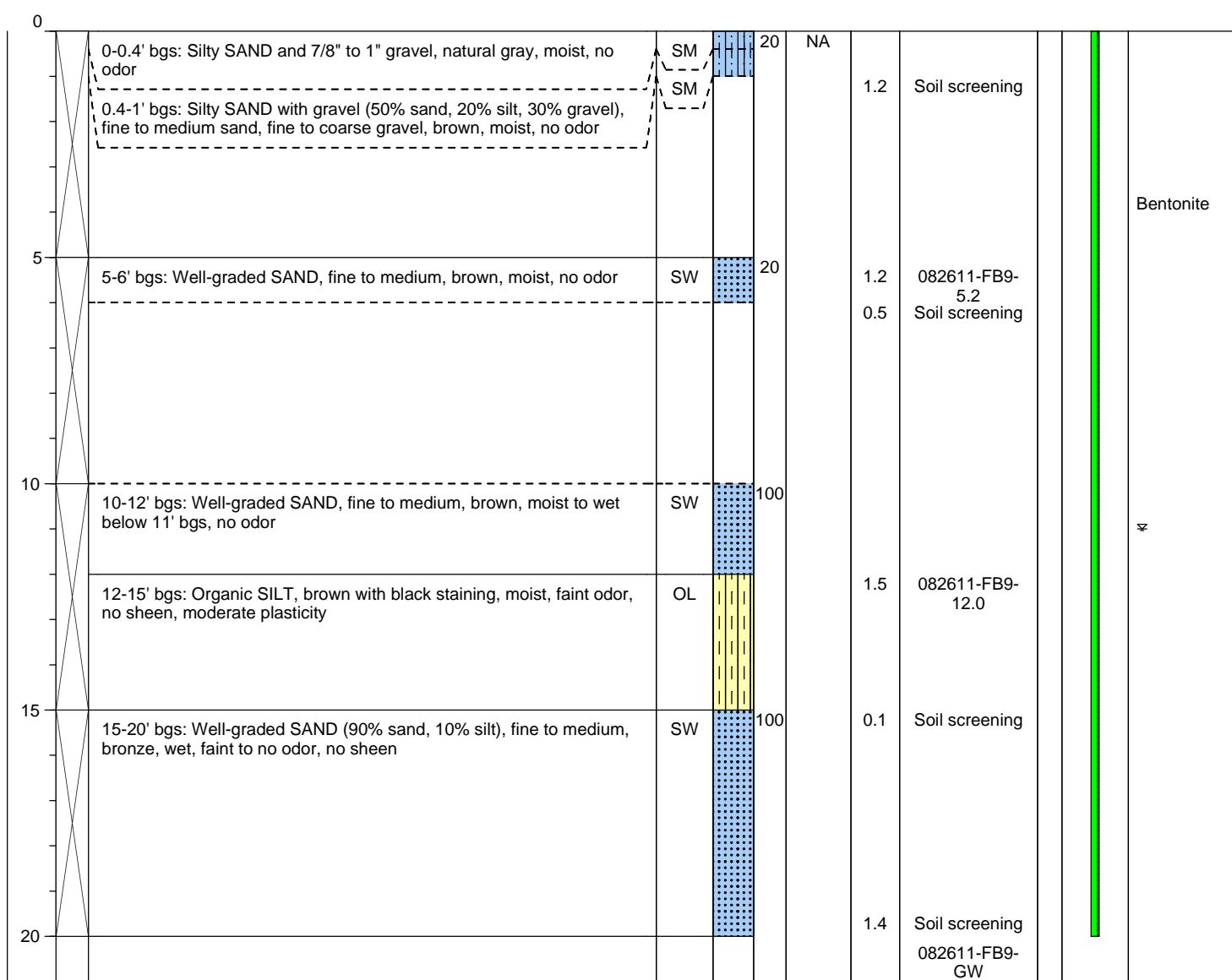
## Log of Boring: FB-9

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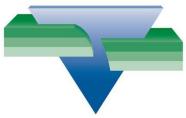
**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

**Date/Time Started:** 08-26-11 1300    **Sampler Type:** 5' Macrocore  
**Date/Time Completed:** 08-26-11 1430    **Drive Hammer (lbs.):** Auto  
**Equipment:** Powerprobe 6600    **Depth of Water ATD (ft bgs):** 11  
**Drilling Company:** Cascade Drilling    **Total Boring Depth (ft bgs):** 20  
**Drilling Foreman:** Lynn Goble    **Total Well Depth (ft bgs):** 20  
**Drilling Method:** Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	0.020	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	15-20				



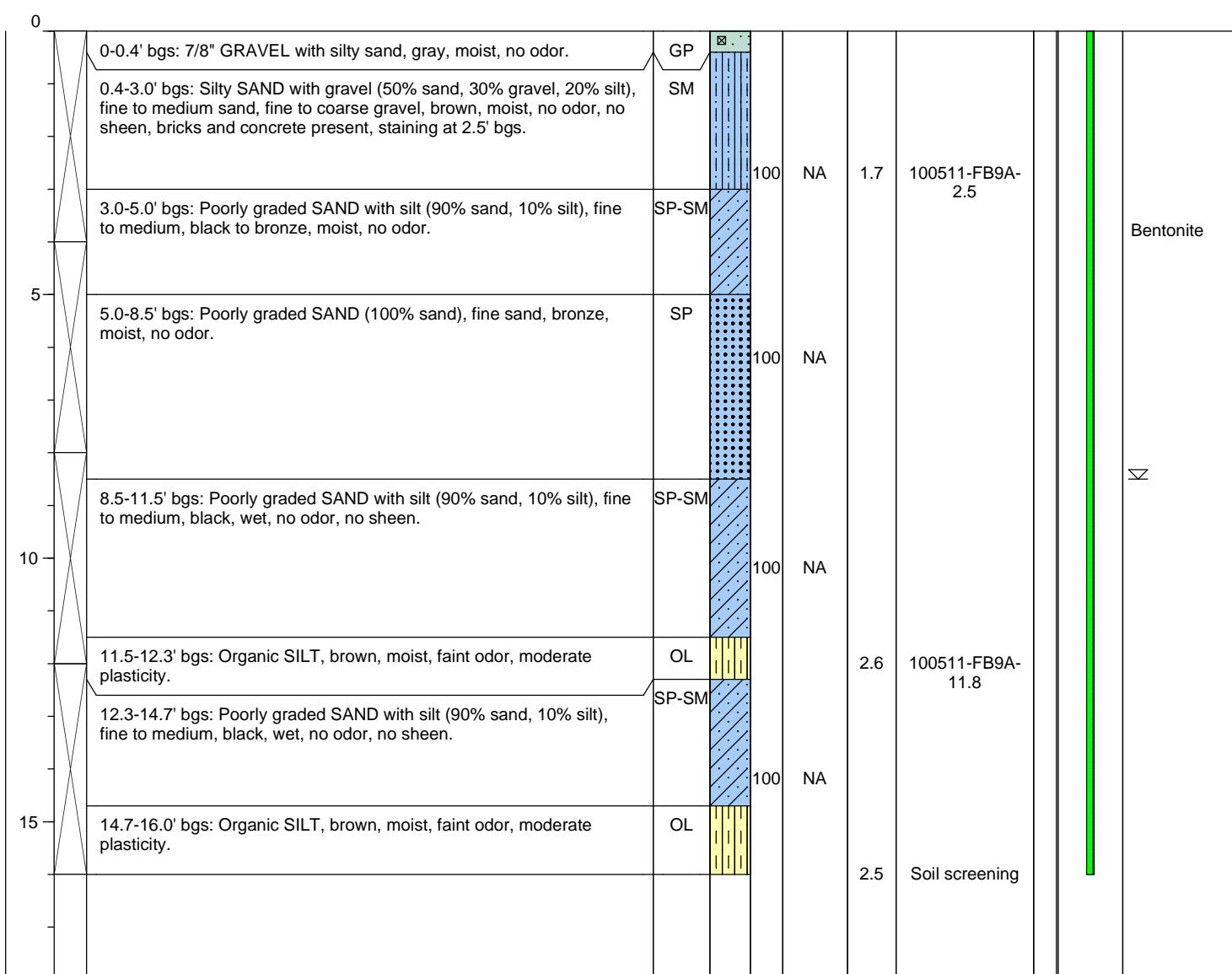
## Log of Boring: FB-9A

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**Client:** Manson Construction Co.  
**Project:** SnoPac Property  
**Location:** Seattle, WA  
**Farallon PN:** 879-009  
**Logged By:** Jon Peterson

Date/Time Started: 10-05-11 1530 Sampler Type: 4' Macrocore  
Date/Time Completed: 10-05-11 1630 Drive Hammer (lbs.): Auto  
Equipment: Geoprobe Depth of Water ATD (ft bgs): 8.5  
Drilling Company: ESN Drilling Total Boring Depth (ft bgs): 16.0  
Drilling Foreman: Martin Haun Total Well Depth (ft bgs): NA  
Drilling Method: Geoprobe

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Well Construction Information				Ground Surface Elevation (ft):	NA
Monument Type:	NA	Filter Pack:	NA	Top of Casing Elevation (ft):	NA
Casing Diameter (inches):	NA	Surface Seal:	Gravel/Bentonite	Boring Abandonment:	Bentonite
Screen Slot Size (inches):	NA	Annular Seal:	NA	Surveyed Location:	X: NA Y: NA
Screened Interval (ft bgs):	NA				

**ATTACHMENT B  
LABORATORY ANALYTICAL REPORTS**

**SUBSURFACE INVESTIGATION RESULTS  
Snopac Property  
5055 East Marginal Way South  
Seattle, Washington**

Farallon PN: 879-009

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-28308-1

Client Project/Site: Sno Pac

For:

Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Donald Lance

Kristine D. Allen

Authorized for release by:  
09/14/2011 06:00:45 PM

Kristine Allen  
Project Manager I  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Case Narrative

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

### Job ID: 580-28308-1

#### Laboratory: TestAmerica Seattle

##### Narrative

##### Receipt

All samples were received in good condition within temperature requirements.

##### GC/MS VOA -Methods 8021B/8260B

Sample 082511-FB1-GW (580-28308-3) was reanalyzed (RA) by method 8260B to confirm a hit of Toluene in method 8021B without hits of any other target analytes.

##### GC/MS VOA - Method NWTPH-Gx

The following samples were reanalyzed due a failing laboratory control sample duplicate (LCSD) in the original analysis:  
082511-FB1-GW (580-2808-3), 082511-FB2-GW (580-28308-10), 082511-FB3-GW (580-28308-14).

No other analytical or quality issues were noted.

##### GC/MS Semi VOA

No analytical or quality issues were noted.

##### GC Semi VOA - Method 8082:

Sample required a sulfuric acid clean-up to reduce matrix interferences (sulfuric acid lot# 709195).

##### GC Semi VOA - Method NWTPH-Dx:

The results in the C10-C24 and motor oil range for samples 082511-FB1-GW (580-28308-3), 082511-FB4-GW (580-28308-6) and 082511-FB2-GW (580-28308-10) and 082511-FB3-GW (580-28308-14) are due to a mineral/transformer oil range product. The affected analyte ranges have been qualified with the "Y" qualifier and reported.

No other analytical or quality issues were noted.

##### Metals

No analytical or quality issues were noted.

##### Organic Prep

No analytical or quality issues were noted.

## Definitions/Glossary

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

### Glossary

#### Abbreviation 1

**These commonly used abbreviations may or may not be present in this report.**

✓	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit (Dioxin)
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or method detection limit if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB1-GW**

**Lab Sample ID: 580-28308-3**

**Matrix: Water**

Date Collected: 08/25/11 12:00  
Date Received: 08/26/11 15:00

## Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.1		1.0		ug/L			09/08/11 20:43	1
<b>Surrogate</b>									
Fluorobenzene (Surr)	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
98			80 - 120					09/08/11 20:43	1
Toluene-d8 (Surr)			85 - 120					09/08/11 20:43	1
Ethylbenzene-d10			80 - 120					09/08/11 20:43	1
Trifluorotoluene (Surr)			80 - 120					09/08/11 20:43	1
4-Bromofluorobenzene (Surr)			75 - 120					09/08/11 20:43	1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.11		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
2-Methylnaphthalene	ND		0.13		ug/L		08/31/11 10:55	09/02/11 19:02	1
1-Methylnaphthalene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Acenaphthylene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Acenaphthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Fluorene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Phenanthrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Pyrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Benzo[a]anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Chrysene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Benzo[b]fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Benzo[k]fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Benzo[a]pyrene	ND		0.20		ug/L		08/31/11 10:55	09/02/11 19:02	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:02	1
<b>Surrogate</b>									
Terphenyl-d14	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	64		20 - 150					08/31/11 10:55	09/02/11 19:02

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			09/07/11 07:35	1
Toluene	0.95		0.50		ug/L			09/07/11 07:35	1
Ethylbenzene	ND		0.50		ug/L			09/07/11 07:35	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/07/11 07:35	1
o-Xylene	ND		1.0		ug/L			09/07/11 07:35	1
Xylenes, Total	ND		1.0		ug/L			09/07/11 07:35	1
<b>Surrogate</b>									
a,a,a-Trifluorotoluene	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	109		50 - 150					09/07/11 07:35	1
4-Bromofluorobenzene (Surr)			80 - 130					09/07/11 07:35	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			09/08/11 20:43	1
<b>Surrogate</b>									
4-Bromofluorobenzene (Surr)	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	91		50 - 150					09/08/11 20:43	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB1-GW**

**Lab Sample ID: 580-28308-3**

Date Collected: 08/25/11 12:00

Matrix: Water

Date Received: 08/26/11 15:00

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA (Continued)

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		50 - 150		09/08/11 20:43	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
PCB-1221	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
PCB-1232	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
PCB-1242	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
PCB-1248	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
PCB-1254	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
PCB-1260	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:13	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		60 - 150				08/30/11 13:09	09/09/11 17:13	1
DCB Decachlorobiphenyl	60		40 - 135				08/30/11 13:09	09/09/11 17:13	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.27	Y	0.12		mg/L		09/06/11 13:43	09/08/11 23:30	1
Motor Oil (>C24-C36)	0.31	Y	0.24		mg/L		09/06/11 13:43	09/08/11 23:30	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	103		50 - 150				09/06/11 13:43	09/08/11 23:30	1

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.060		mg/L		09/07/11 14:03	09/07/11 21:07	1
Cadmium	ND		0.010		mg/L		09/07/11 14:03	09/07/11 21:07	1
Chromium	0.082		0.025		mg/L		09/07/11 14:03	09/07/11 21:07	1
Copper	0.071		0.020		mg/L		09/07/11 14:03	09/07/11 21:07	1
Lead	ND		0.030		mg/L		09/07/11 14:03	09/07/11 21:07	1
Silver	ND		0.020		mg/L		09/07/11 14:03	09/07/11 21:07	1
Zinc	0.27		0.040		mg/L		09/07/11 14:03	09/07/11 21:07	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 13:14	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB4-GW**

**Lab Sample ID: 580-28308-6**

**Matrix: Water**

Date Collected: 08/25/11 12:50  
Date Received: 08/26/11 15:00

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/08/11 17:58	1
Chloromethane	ND		5.0		ug/L			09/08/11 17:58	1
Vinyl chloride	ND		1.0		ug/L			09/08/11 17:58	1
Bromomethane	ND		5.0		ug/L			09/08/11 17:58	1
Chloroethane	ND		5.0		ug/L			09/08/11 17:58	1
Trichlorofluoromethane	ND		1.0		ug/L			09/08/11 17:58	1
1,1-Dichloroethene	ND		1.0		ug/L			09/08/11 17:58	1
Methylene Chloride	ND		3.0		ug/L			09/08/11 17:58	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 17:58	1
1,1-Dichloroethane	ND		1.0		ug/L			09/08/11 17:58	1
2,2-Dichloropropane	ND		1.0		ug/L			09/08/11 17:58	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 17:58	1
Chlorobromomethane	ND		1.0		ug/L			09/08/11 17:58	1
Chloroform	ND		1.0		ug/L			09/08/11 17:58	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/08/11 17:58	1
Carbon tetrachloride	ND		1.0		ug/L			09/08/11 17:58	1
1,1-Dichloropropene	ND		1.0		ug/L			09/08/11 17:58	1
Benzene	ND		1.0		ug/L			09/08/11 17:58	1
1,2-Dichloroethane	ND		1.0		ug/L			09/08/11 17:58	1
Trichloroethene	ND		1.0		ug/L			09/08/11 17:58	1
1,2-Dichloropropane	ND		1.0		ug/L			09/08/11 17:58	1
Dibromomethane	ND		1.0		ug/L			09/08/11 17:58	1
Dichlorobromomethane	ND		1.0		ug/L			09/08/11 17:58	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 17:58	1
Toluene	ND		1.0		ug/L			09/08/11 17:58	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 17:58	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/08/11 17:58	1
Tetrachloroethene	ND		1.0		ug/L			09/08/11 17:58	1
1,3-Dichloropropane	ND		1.0		ug/L			09/08/11 17:58	1
Chlorodibromomethane	ND		1.0		ug/L			09/08/11 17:58	1
Ethylene Dibromide	ND		1.0		ug/L			09/08/11 17:58	1
Chlorobenzene	ND		1.0		ug/L			09/08/11 17:58	1
Ethylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 17:58	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 17:58	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/08/11 17:58	1
o-Xylene	ND		1.0		ug/L			09/08/11 17:58	1
Styrene	ND		1.0		ug/L			09/08/11 17:58	1
Bromoform	ND		1.0		ug/L			09/08/11 17:58	1
Isopropylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
Bromobenzene	ND		1.0		ug/L			09/08/11 17:58	1
N-Propylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/11 17:58	1
2-Chlorotoluene	ND		1.0		ug/L			09/08/11 17:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
4-Chlorotoluene	ND		1.0		ug/L			09/08/11 17:58	1
tert-Butylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
sec-Butylbenzene	ND		1.0		ug/L			09/08/11 17:58	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/08/11 17:58	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB4-GW**

**Lab Sample ID: 580-28308-6**

Date Collected: 08/25/11 12:50

Matrix: Water

Date Received: 08/26/11 15:00

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L		09/08/11 17:58		1
1,4-Dichlorobenzene	ND		1.0		ug/L		09/08/11 17:58		1
n-Butylbenzene	ND		1.0		ug/L		09/08/11 17:58		1
1,2-Dichlorobenzene	ND		1.0		ug/L		09/08/11 17:58		1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L		09/08/11 17:58		1
1,2,4-Trichlorobenzene	ND		1.0		ug/L		09/08/11 17:58		1
1,2,3-Trichlorobenzene	ND		1.0		ug/L		09/08/11 17:58		1
Hexachlorobutadiene	ND		1.0		ug/L		09/08/11 17:58		1
Naphthalene	ND		1.0		ug/L		09/08/11 17:58		1
Methyl tert-butyl ether	ND		1.0		ug/L		09/08/11 17:58		1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	104		80 - 120				09/08/11 17:58		1
Toluene-d8 (Surr)	99		85 - 120				09/08/11 17:58		1
Ethylbenzene-d10	99		80 - 120				09/08/11 17:58		1
4-Bromofluorobenzene (Surr)	99		75 - 120				09/08/11 17:58		1
Trifluorotoluene (Surr)	111		80 - 120				09/08/11 17:58		1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
2-Methylnaphthalene	ND		0.13		ug/L		08/31/11 10:55	09/02/11 19:22	1
1-Methylnaphthalene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Acenaphthylene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Acenaphthene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Fluorene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Phenanthrene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Anthracene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Fluoranthene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Pyrene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Benzo[a]anthracene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Chrysene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Benzo[b]fluoranthene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Benzo[k]fluoranthene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Benzo[a]pyrene	ND		0.19		ug/L		08/31/11 10:55	09/02/11 19:22	1
Indeno[1,2,3-cd]pyrene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Dibenz(a,h)anthracene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
Benzo[g,h,i]perylene	ND		0.096		ug/L		08/31/11 10:55	09/02/11 19:22	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	41		20 - 150				08/31/11 10:55	09/02/11 19:22	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1
PCB-1221	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1
PCB-1232	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1
PCB-1242	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1
PCB-1248	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1
PCB-1254	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1
PCB-1260	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:27	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB4-GW**

**Lab Sample ID: 580-28308-6**

Date Collected: 08/25/11 12:50

Matrix: Water

Date Received: 08/26/11 15:00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		60 - 150	08/30/11 13:09	09/09/11 17:27	1
DCB Decachlorobiphenyl	45		40 - 135	08/30/11 13:09	09/09/11 17:27	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.28	Y	0.12		mg/L		09/06/11 13:43	09/13/11 11:47	1
Motor Oil (>C24-C36)	0.36	Y	0.24		mg/L		09/06/11 13:43	09/13/11 11:47	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150				09/06/11 13:43	09/13/11 11:47	1

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/07/11 14:03	09/07/11 21:20	1
Cadmium	ND		0.010		mg/L		09/07/11 14:03	09/07/11 21:20	1
Chromium	0.045		0.025		mg/L		09/07/11 14:03	09/07/11 21:20	1
Copper	0.056		0.020		mg/L		09/07/11 14:03	09/07/11 21:20	1
Lead	ND		0.030		mg/L		09/07/11 14:03	09/07/11 21:20	1
Silver	ND		0.020		mg/L		09/07/11 14:03	09/07/11 21:20	1
Zinc	0.070		0.040		mg/L		09/07/11 14:03	09/07/11 21:20	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 13:15	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB2-GW**

Date Collected: 08/25/11 15:10

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-10**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/08/11 18:25	1
Chloromethane	ND		5.0		ug/L			09/08/11 18:25	1
Vinyl chloride	ND		1.0		ug/L			09/08/11 18:25	1
Bromomethane	ND		5.0		ug/L			09/08/11 18:25	1
Chloroethane	ND		5.0		ug/L			09/08/11 18:25	1
Trichlorofluoromethane	ND		1.0		ug/L			09/08/11 18:25	1
1,1-Dichloroethene	ND		1.0		ug/L			09/08/11 18:25	1
Methylene Chloride	ND		3.0		ug/L			09/08/11 18:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 18:25	1
1,1-Dichloroethane	ND		1.0		ug/L			09/08/11 18:25	1
2,2-Dichloropropane	ND		1.0		ug/L			09/08/11 18:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 18:25	1
Chlorobromomethane	ND		1.0		ug/L			09/08/11 18:25	1
Chloroform	ND		1.0		ug/L			09/08/11 18:25	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/08/11 18:25	1
Carbon tetrachloride	ND		1.0		ug/L			09/08/11 18:25	1
1,1-Dichloropropene	ND		1.0		ug/L			09/08/11 18:25	1
Benzene	ND		1.0		ug/L			09/08/11 18:25	1
1,2-Dichloroethane	ND		1.0		ug/L			09/08/11 18:25	1
Trichloroethene	ND		1.0		ug/L			09/08/11 18:25	1
1,2-Dichloropropane	ND		1.0		ug/L			09/08/11 18:25	1
Dibromomethane	ND		1.0		ug/L			09/08/11 18:25	1
Dichlorobromomethane	ND		1.0		ug/L			09/08/11 18:25	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 18:25	1
Toluene	ND		1.0		ug/L			09/08/11 18:25	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 18:25	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/08/11 18:25	1
Tetrachloroethene	ND		1.0		ug/L			09/08/11 18:25	1
1,3-Dichloropropane	ND		1.0		ug/L			09/08/11 18:25	1
Chlorodibromomethane	ND		1.0		ug/L			09/08/11 18:25	1
Ethylene Dibromide	ND		1.0		ug/L			09/08/11 18:25	1
Chlorobenzene	ND		1.0		ug/L			09/08/11 18:25	1
Ethylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 18:25	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 18:25	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/08/11 18:25	1
o-Xylene	ND		1.0		ug/L			09/08/11 18:25	1
Styrene	ND		1.0		ug/L			09/08/11 18:25	1
Bromoform	ND		1.0		ug/L			09/08/11 18:25	1
Isopropylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
Bromobenzene	ND		1.0		ug/L			09/08/11 18:25	1
N-Propylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/11 18:25	1
2-Chlorotoluene	ND		1.0		ug/L			09/08/11 18:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
4-Chlorotoluene	ND		1.0		ug/L			09/08/11 18:25	1
tert-Butylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
sec-Butylbenzene	ND		1.0		ug/L			09/08/11 18:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/08/11 18:25	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB2-GW**

**Lab Sample ID: 580-28308-10**

Date Collected: 08/25/11 15:10

Matrix: Water

Date Received: 08/26/11 15:00

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L		09/08/11 18:25		1
1,4-Dichlorobenzene	ND		1.0		ug/L		09/08/11 18:25		1
n-Butylbenzene	ND		1.0		ug/L		09/08/11 18:25		1
1,2-Dichlorobenzene	ND		1.0		ug/L		09/08/11 18:25		1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L		09/08/11 18:25		1
1,2,4-Trichlorobenzene	ND		1.0		ug/L		09/08/11 18:25		1
1,2,3-Trichlorobenzene	ND		1.0		ug/L		09/08/11 18:25		1
Hexachlorobutadiene	ND		1.0		ug/L		09/08/11 18:25		1
Naphthalene	ND		1.0		ug/L		09/08/11 18:25		1
Methyl tert-butyl ether	ND		1.0		ug/L		09/08/11 18:25		1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	104		80 - 120				09/08/11 18:25		1
Toluene-d8 (Surr)	101		85 - 120				09/08/11 18:25		1
Ethylbenzene-d10	103		80 - 120				09/08/11 18:25		1
4-Bromofluorobenzene (Surr)	100		75 - 120				09/08/11 18:25		1
Trifluorotoluene (Surr)	108		80 - 120				09/08/11 18:25		1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
2-Methylnaphthalene	ND		0.13		ug/L		08/31/11 10:55	09/02/11 19:41	1
1-Methylnaphthalene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Acenaphthylene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Acenaphthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Fluorene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Phenanthrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Pyrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Benzo[a]anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Chrysene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Benzo[b]fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Benzo[k]fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Benzo[a]pyrene	ND		0.20		ug/L		08/31/11 10:55	09/02/11 19:41	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 19:41	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	63		20 - 150				08/31/11 10:55	09/02/11 19:41	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L		09/08/11 21:05		1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		50 - 150				09/08/11 21:05		1
Trifluorotoluene (Surr)	107		50 - 150				09/08/11 21:05		1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB2-GW**

**Lab Sample ID: 580-28308-10**

Date Collected: 08/25/11 15:10

Matrix: Water

Date Received: 08/26/11 15:00

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
PCB-1221	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
PCB-1232	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
PCB-1242	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
PCB-1248	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
PCB-1254	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
PCB-1260	ND		0.50		ug/L		08/30/11 13:09	09/09/11 17:42	1
<b>Surrogate</b>		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		107		60 - 150			08/30/11 13:09	09/09/11 17:42	1
DCB Decachlorobiphenyl		60		40 - 135			08/30/11 13:09	09/09/11 17:42	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.27	Y	0.12		mg/L		09/06/11 13:43	09/13/11 12:11	1
Motor Oil (>C24-C36)	0.43	Y	0.24		mg/L		09/06/11 13:43	09/13/11 12:11	1
<b>Surrogate</b>									
o-Terphenyl	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	97		50 - 150				09/06/11 13:43	09/13/11 12:11	1

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/07/11 14:03	09/07/11 21:13	1
Cadmium	ND		0.010		mg/L		09/07/11 14:03	09/07/11 21:13	1
Chromium	0.061		0.025		mg/L		09/07/11 14:03	09/07/11 21:13	1
Copper	0.041		0.020		mg/L		09/07/11 14:03	09/07/11 21:13	1
Lead	ND		0.030		mg/L		09/07/11 14:03	09/07/11 21:13	1
Silver	ND		0.020		mg/L		09/07/11 14:03	09/07/11 21:13	1
Zinc	0.11		0.040		mg/L		09/07/11 14:03	09/07/11 21:13	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 13:17	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB3-GW**

**Lab Sample ID: 580-28308-14**

**Matrix: Water**

Date Collected: 08/25/11 17:15

Date Received: 08/26/11 15:00

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/08/11 18:51	1
Chloromethane	ND		5.0		ug/L			09/08/11 18:51	1
Vinyl chloride	ND		1.0		ug/L			09/08/11 18:51	1
Bromomethane	ND		5.0		ug/L			09/08/11 18:51	1
Chloroethane	ND		5.0		ug/L			09/08/11 18:51	1
Trichlorofluoromethane	ND		1.0		ug/L			09/08/11 18:51	1
1,1-Dichloroethene	ND		1.0		ug/L			09/08/11 18:51	1
Methylene Chloride	ND		3.0		ug/L			09/08/11 18:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 18:51	1
1,1-Dichloroethane	ND		1.0		ug/L			09/08/11 18:51	1
2,2-Dichloropropane	ND		1.0		ug/L			09/08/11 18:51	1
<b>cis-1,2-Dichloroethene</b>	<b>2.0</b>		1.0		ug/L			09/08/11 18:51	1
Chlorobromomethane	ND		1.0		ug/L			09/08/11 18:51	1
Chloroform	ND		1.0		ug/L			09/08/11 18:51	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/08/11 18:51	1
Carbon tetrachloride	ND		1.0		ug/L			09/08/11 18:51	1
1,1-Dichloropropene	ND		1.0		ug/L			09/08/11 18:51	1
Benzene	ND		1.0		ug/L			09/08/11 18:51	1
1,2-Dichloroethane	ND		1.0		ug/L			09/08/11 18:51	1
Trichloroethene	ND		1.0		ug/L			09/08/11 18:51	1
1,2-Dichloropropane	ND		1.0		ug/L			09/08/11 18:51	1
Dibromomethane	ND		1.0		ug/L			09/08/11 18:51	1
Dichlorobromomethane	ND		1.0		ug/L			09/08/11 18:51	1
<b>cis-1,3-Dichloropropene</b>	<b>ND</b>		1.0		ug/L			09/08/11 18:51	1
Toluene	ND		1.0		ug/L			09/08/11 18:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 18:51	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/08/11 18:51	1
Tetrachloroethene	ND		1.0		ug/L			09/08/11 18:51	1
1,3-Dichloropropane	ND		1.0		ug/L			09/08/11 18:51	1
Chlorodibromomethane	ND		1.0		ug/L			09/08/11 18:51	1
Ethylene Dibromide	ND		1.0		ug/L			09/08/11 18:51	1
Chlorobenzene	ND		1.0		ug/L			09/08/11 18:51	1
Ethylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 18:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 18:51	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/08/11 18:51	1
o-Xylene	ND		1.0		ug/L			09/08/11 18:51	1
Styrene	ND		1.0		ug/L			09/08/11 18:51	1
Bromoform	ND		1.0		ug/L			09/08/11 18:51	1
Isopropylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
Bromobenzene	ND		1.0		ug/L			09/08/11 18:51	1
N-Propylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/11 18:51	1
2-Chlorotoluene	ND		1.0		ug/L			09/08/11 18:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
4-Chlorotoluene	ND		1.0		ug/L			09/08/11 18:51	1
tert-Butylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
sec-Butylbenzene	ND		1.0		ug/L			09/08/11 18:51	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/08/11 18:51	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB3-GW**

**Lab Sample ID: 580-28308-14**

**Matrix: Water**

Date Collected: 08/25/11 17:15  
Date Received: 08/26/11 15:00

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L		09/08/11 18:51		1
1,4-Dichlorobenzene	ND		1.0		ug/L		09/08/11 18:51		1
n-Butylbenzene	ND		1.0		ug/L		09/08/11 18:51		1
1,2-Dichlorobenzene	ND		1.0		ug/L		09/08/11 18:51		1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L		09/08/11 18:51		1
1,2,4-Trichlorobenzene	ND		1.0		ug/L		09/08/11 18:51		1
1,2,3-Trichlorobenzene	ND		1.0		ug/L		09/08/11 18:51		1
Hexachlorobutadiene	ND		1.0		ug/L		09/08/11 18:51		1
Naphthalene	ND		1.0		ug/L		09/08/11 18:51		1
Methyl tert-butyl ether	ND		1.0		ug/L		09/08/11 18:51		1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	106		80 - 120				09/08/11 18:51		1
Toluene-d8 (Surr)	95		85 - 120				09/08/11 18:51		1
Ethylbenzene-d10	98		80 - 120				09/08/11 18:51		1
4-Bromofluorobenzene (Surr)	99		75 - 120				09/08/11 18:51		1
Trifluorotoluene (Surr)	109		80 - 120				09/08/11 18:51		1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
2-Methylnaphthalene	ND		0.13		ug/L		08/31/11 10:55	09/02/11 20:01	1
1-Methylnaphthalene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Acenaphthylene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Acenaphthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Fluorene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Phenanthrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Pyrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Benzo[a]anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Chrysene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Benzo[b]fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Benzo[k]fluoranthene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Benzo[a]pyrene	ND		0.20		ug/L		08/31/11 10:55	09/02/11 20:01	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		08/31/11 10:55	09/02/11 20:01	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	77		20 - 150				08/31/11 10:55	09/02/11 20:01	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L		09/08/11 22:12		1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		50 - 150				09/08/11 22:12		1
Trifluorotoluene (Surr)	105		50 - 150				09/08/11 22:12		1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB3-GW**

**Lab Sample ID: 580-28308-14**

Date Collected: 08/25/11 17:15

Matrix: Water

Date Received: 08/26/11 15:00

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
PCB-1221	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
PCB-1232	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
PCB-1242	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
PCB-1248	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
PCB-1254	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
PCB-1260	ND		0.48		ug/L		08/30/11 13:09	09/09/11 17:56	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		60 - 150				08/30/11 13:09	09/09/11 17:56	1
DCB Decachlorobiphenyl	59		40 - 135				08/30/11 13:09	09/09/11 17:56	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.56	Y	0.12		mg/L		09/06/11 13:43	09/13/11 12:35	1
Motor Oil (>C24-C36)	0.52	Y	0.24		mg/L		09/06/11 13:43	09/13/11 12:35	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	101		50 - 150				09/06/11 13:43	09/13/11 12:35	1

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/07/11 13:59	09/07/11 20:16	1
Cadmium	ND		0.010		mg/L		09/07/11 13:59	09/07/11 20:16	1
Chromium	ND		0.025		mg/L		09/07/11 13:59	09/07/11 20:16	1
Copper	ND		0.020		mg/L		09/07/11 13:59	09/07/11 20:16	1
Lead	ND		0.030		mg/L		09/07/11 13:59	09/07/11 20:16	1
Silver	ND		0.020		mg/L		09/07/11 13:59	09/07/11 20:16	1
Zinc	ND		0.040		mg/L		09/07/11 13:59	09/07/11 20:16	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 13:19	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB5-GW**

**Lab Sample ID: 580-28308-18**

Date Collected: 08/25/11 19:00

Matrix: Water

Date Received: 08/26/11 15:00

**Method: 6010B - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/07/11 14:03	09/07/11 21:27	1
Cadmium	ND		0.010		mg/L		09/07/11 14:03	09/07/11 21:27	1
Chromium	ND		0.025		mg/L		09/07/11 14:03	09/07/11 21:27	1
<b>Copper</b>	<b>0.021</b>		0.020		mg/L		09/07/11 14:03	09/07/11 21:27	1
Lead	ND		0.030		mg/L		09/07/11 14:03	09/07/11 21:27	1
Silver	ND		0.020		mg/L		09/07/11 14:03	09/07/11 21:27	1
Zinc	ND		0.040		mg/L		09/07/11 14:03	09/07/11 21:27	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 13:20	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: TB-3**

Date Collected: 08/25/11 11:39  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-20**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/08/11 14:52	1
Chloromethane	ND		5.0		ug/L			09/08/11 14:52	1
Vinyl chloride	ND		1.0		ug/L			09/08/11 14:52	1
Bromomethane	ND		5.0		ug/L			09/08/11 14:52	1
Chloroethane	ND		5.0		ug/L			09/08/11 14:52	1
Trichlorofluoromethane	ND		1.0		ug/L			09/08/11 14:52	1
1,1-Dichloroethene	ND		1.0		ug/L			09/08/11 14:52	1
Methylene Chloride	ND		3.0		ug/L			09/08/11 14:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 14:52	1
1,1-Dichloroethane	ND		1.0		ug/L			09/08/11 14:52	1
2,2-Dichloropropane	ND		1.0		ug/L			09/08/11 14:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 14:52	1
Chlorobromomethane	ND		1.0		ug/L			09/08/11 14:52	1
Chloroform	ND		1.0		ug/L			09/08/11 14:52	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/08/11 14:52	1
Carbon tetrachloride	ND		1.0		ug/L			09/08/11 14:52	1
1,1-Dichloropropene	ND		1.0		ug/L			09/08/11 14:52	1
Benzene	ND		1.0		ug/L			09/08/11 14:52	1
1,2-Dichloroethane	ND		1.0		ug/L			09/08/11 14:52	1
Trichloroethene	ND		1.0		ug/L			09/08/11 14:52	1
1,2-Dichloropropane	ND		1.0		ug/L			09/08/11 14:52	1
Dibromomethane	ND		1.0		ug/L			09/08/11 14:52	1
Dichlorobromomethane	ND		1.0		ug/L			09/08/11 14:52	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 14:52	1
Toluene	ND		1.0		ug/L			09/08/11 14:52	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 14:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/08/11 14:52	1
Tetrachloroethene	ND		1.0		ug/L			09/08/11 14:52	1
1,3-Dichloropropane	ND		1.0		ug/L			09/08/11 14:52	1
Chlorodibromomethane	ND		1.0		ug/L			09/08/11 14:52	1
Ethylene Dibromide	ND		1.0		ug/L			09/08/11 14:52	1
Chlorobenzene	ND		1.0		ug/L			09/08/11 14:52	1
Ethylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 14:52	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 14:52	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/08/11 14:52	1
o-Xylene	ND		1.0		ug/L			09/08/11 14:52	1
Styrene	ND		1.0		ug/L			09/08/11 14:52	1
Bromoform	ND		1.0		ug/L			09/08/11 14:52	1
Isopropylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
Bromobenzene	ND		1.0		ug/L			09/08/11 14:52	1
N-Propylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/11 14:52	1
2-Chlorotoluene	ND		1.0		ug/L			09/08/11 14:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
4-Chlorotoluene	ND		1.0		ug/L			09/08/11 14:52	1
tert-Butylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
sec-Butylbenzene	ND		1.0		ug/L			09/08/11 14:52	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/08/11 14:52	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: TB-3**  
**Date Collected: 08/25/11 11:39**  
**Date Received: 08/26/11 15:00**

**Lab Sample ID: 580-28308-20**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L		09/08/11 14:52		1
1,4-Dichlorobenzene	ND		1.0		ug/L		09/08/11 14:52		1
n-Butylbenzene	ND		1.0		ug/L		09/08/11 14:52		1
1,2-Dichlorobenzene	ND		1.0		ug/L		09/08/11 14:52		1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L		09/08/11 14:52		1
1,2,4-Trichlorobenzene	ND		1.0		ug/L		09/08/11 14:52		1
1,2,3-Trichlorobenzene	ND		1.0		ug/L		09/08/11 14:52		1
Hexachlorobutadiene	ND		1.0		ug/L		09/08/11 14:52		1
Naphthalene	ND		1.0		ug/L		09/08/11 14:52		1
Methyl tert-butyl ether	ND		1.0		ug/L		09/08/11 14:52		1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	104		80 - 120		09/08/11 14:52	1
Toluene-d8 (Surr)	100		85 - 120		09/08/11 14:52	1
Ethylbenzene-d10	103		80 - 120		09/08/11 14:52	1
4-Bromofluorobenzene (Surr)	100		75 - 120		09/08/11 14:52	1
Trifluorotoluene (Surr)	109		80 - 120		09/08/11 14:52	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID:** MB 580-94922/4

**Matrix:** Water

**Analysis Batch:** 94922

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Toluene	ND		1.0		ug/L			09/08/11 18:05	1
<b>Surrogate</b>									
Fluorobenzene (Surr)	98		80 - 120				Prepared	09/08/11 18:05	1
Toluene-d8 (Surr)	101		85 - 120					09/08/11 18:05	1
Ethylbenzene-d10	102		80 - 120					09/08/11 18:05	1
4-Bromofluorobenzene (Surr)	103		75 - 120					09/08/11 18:05	1
Trifluorotoluene (Surr)	106		80 - 120					09/08/11 18:05	1

**Lab Sample ID:** LCS 580-94922/5

**Matrix:** Water

**Analysis Batch:** 94922

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike		Result	Qualifier	Unit	D	% Rec	Limits	% Rec.
	Added								
Toluene	25.0		24.3		ug/L		97	75 - 120	
<b>Surrogate</b>									
Fluorobenzene (Surr)	98		80 - 120						
Toluene-d8 (Surr)	100		85 - 120						
Ethylbenzene-d10	102		80 - 120						
4-Bromofluorobenzene (Surr)	103		75 - 120						
Trifluorotoluene (Surr)	94		80 - 120						

**Lab Sample ID:** LCSD 580-94922/6

**Matrix:** Water

**Analysis Batch:** 94922

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike		Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
	Added									
Toluene	25.0		24.4		ug/L		98	75 - 120	0	30
<b>Surrogate</b>										
Fluorobenzene (Surr)	98		80 - 120							
Toluene-d8 (Surr)	101		85 - 120							
Ethylbenzene-d10	103		80 - 120							
4-Bromofluorobenzene (Surr)	103		75 - 120							
Trifluorotoluene (Surr)	95		80 - 120							

**Lab Sample ID:** MB 580-95197/6

**Matrix:** Water

**Analysis Batch:** 95197

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		1.0		ug/L			09/08/11 13:05	1
Chloromethane	ND		5.0		ug/L			09/08/11 13:05	1
Vinyl chloride	ND		1.0		ug/L			09/08/11 13:05	1
Bromomethane	ND		5.0		ug/L			09/08/11 13:05	1
Chloroethane	ND		5.0		ug/L			09/08/11 13:05	1
Trichlorofluoromethane	ND		1.0		ug/L			09/08/11 13:05	1
1,1-Dichloroethene	ND		1.0		ug/L			09/08/11 13:05	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 580-95197/6**

**Matrix: Water**

**Analysis Batch: 95197**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		3.0		ug/L			09/08/11 13:05	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 13:05	1
1,1-Dichloroethane	ND		1.0		ug/L			09/08/11 13:05	1
2,2-Dichloropropane	ND		1.0		ug/L			09/08/11 13:05	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 13:05	1
Chlorobromomethane	ND		1.0		ug/L			09/08/11 13:05	1
Chloroform	ND		1.0		ug/L			09/08/11 13:05	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/08/11 13:05	1
Carbon tetrachloride	ND		1.0		ug/L			09/08/11 13:05	1
1,1-Dichloropropene	ND		1.0		ug/L			09/08/11 13:05	1
Benzene	ND		1.0		ug/L			09/08/11 13:05	1
1,2-Dichloroethane	ND		1.0		ug/L			09/08/11 13:05	1
Trichloroethene	ND		1.0		ug/L			09/08/11 13:05	1
1,2-Dichloropropane	ND		1.0		ug/L			09/08/11 13:05	1
Dibromomethane	ND		1.0		ug/L			09/08/11 13:05	1
Dichlorobromomethane	ND		1.0		ug/L			09/08/11 13:05	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 13:05	1
Toluene	ND		1.0		ug/L			09/08/11 13:05	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 13:05	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/08/11 13:05	1
Tetrachloroethene	ND		1.0		ug/L			09/08/11 13:05	1
1,3-Dichloropropane	ND		1.0		ug/L			09/08/11 13:05	1
Chlorodibromomethane	ND		1.0		ug/L			09/08/11 13:05	1
Ethylene Dibromide	ND		1.0		ug/L			09/08/11 13:05	1
Chlorobenzene	ND		1.0		ug/L			09/08/11 13:05	1
Ethylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 13:05	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 13:05	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/08/11 13:05	1
o-Xylene	ND		1.0		ug/L			09/08/11 13:05	1
Styrene	ND		1.0		ug/L			09/08/11 13:05	1
Bromoform	ND		1.0		ug/L			09/08/11 13:05	1
Isopropylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
Bromobenzene	ND		1.0		ug/L			09/08/11 13:05	1
N-Propylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/11 13:05	1
2-Chlorotoluene	ND		1.0		ug/L			09/08/11 13:05	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
4-Chlorotoluene	ND		1.0		ug/L			09/08/11 13:05	1
tert-Butylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
sec-Butylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/08/11 13:05	1
4-Isopropyltoluene	ND		1.0		ug/L			09/08/11 13:05	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/08/11 13:05	1
n-Butylbenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/08/11 13:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/08/11 13:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/08/11 13:05	1

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 580-95197/6**

**Matrix: Water**

**Analysis Batch: 95197**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	ND									
Hexachlorobutadiene	ND	ND			1.0		ug/L			09/08/11 13:05	1
Naphthalene	ND	ND			1.0		ug/L			09/08/11 13:05	1
Methyl tert-butyl ether	ND	ND			1.0		ug/L			09/08/11 13:05	1

Surrogate	MB	MB	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	105	80 - 120						
Fluorobenzene (Surr)	101	85 - 120					09/08/11 13:05	1
Toluene-d8 (Surr)	103	80 - 120					09/08/11 13:05	1
4-Bromofluorobenzene (Surr)	98	75 - 120					09/08/11 13:05	1
Trifluorotoluene (Surr)	110	80 - 120					09/08/11 13:05	1

**Lab Sample ID: LCS 580-95197/8**

**Matrix: Water**

**Analysis Batch: 95197**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	Limits	% Rec.
	Added	Result	Qualifier							
1,1-Dichloroethene	20.0	20.4		20.4		ug/L		102	70 - 130	
Benzene	20.0	20.3		20.3		ug/L		102	80 - 120	
Trichloroethene	20.0	20.1		20.1		ug/L		101	70 - 125	
Toluene	20.0	19.7		19.7		ug/L		99	75 - 120	
Chlorobenzene	20.0	20.8		20.8		ug/L		104	80 - 120	

Surrogate	LCSD	LCSD	% Recovery	Qualifier	Limits
	Added	Result			
Fluorobenzene (Surr)	101	80 - 120			
Toluene-d8 (Surr)	99	85 - 120			
Ethylbenzene-d10	106	80 - 120			
4-Bromofluorobenzene (Surr)	100	75 - 120			
Trifluorotoluene (Surr)	109	80 - 120			

**Lab Sample ID: LCSD 580-95197/9**

**Matrix: Water**

**Analysis Batch: 95197**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
1,1-Dichloroethene	20.0	21.7		21.7		ug/L		109	70 - 130	6	30
Benzene	20.0	20.8		20.8		ug/L		104	80 - 120	2	30
Trichloroethene	20.0	20.5		20.5		ug/L		103	70 - 125	2	30
Toluene	20.0	20.2		20.2		ug/L		101	75 - 120	3	30
Chlorobenzene	20.0	20.6		20.6		ug/L		103	80 - 120	1	30

Surrogate	LCSD	LCSD	% Recovery	Qualifier	Limits
	Added	Result			
Fluorobenzene (Surr)	103	80 - 120			
Toluene-d8 (Surr)	99	85 - 120			
Ethylbenzene-d10	104	80 - 120			
4-Bromofluorobenzene (Surr)	98	75 - 120			
Trifluorotoluene (Surr)	113	80 - 120			

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Lab Sample ID:** MB 580-94181/1-A

**Matrix:** Water

**Analysis Batch:** 94460

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 94181

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
2-Methylnaphthalene	ND				0.13		ug/L		08/31/11 10:55	09/02/11 17:25	1
1-Methylnaphthalene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Acenaphthylene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Acenaphthene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Fluorene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Phenanthrene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Anthracene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Fluoranthene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Pyrene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Benzo[a]anthracene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Chrysene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Benzo[b]fluoranthene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Benzo[k]fluoranthene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Benzo[a]pyrene	ND				0.20		ug/L		08/31/11 10:55	09/02/11 17:25	1
Indeno[1,2,3-cd]pyrene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Dibenz(a,h)anthracene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Benzo[g,h,i]perylene	ND				0.10		ug/L		08/31/11 10:55	09/02/11 17:25	1
Surrogate	MB	MB	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	Prepared	Analyzed	Dil Fac
Terphenyl-d14			90		20 - 150				08/31/11 10:55	09/02/11 17:25	1

**Lab Sample ID:** LCS 580-94181/2-A

**Matrix:** Water

**Analysis Batch:** 94460

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 94181

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	% Rec.	Limits	
	Added										
Naphthalene	10.0			10.3		ug/L		103	50 - 125		
2-Methylnaphthalene	10.0			9.92		ug/L		99	60 - 130		
1-Methylnaphthalene	10.0			10.6		ug/L		106	50 - 125		
Acenaphthylene	9.99			10.1		ug/L		102	60 - 140		
Acenaphthene	10.0			9.91		ug/L		99	60 - 125		
Fluorene	10.0			9.52		ug/L		95	65 - 125		
Phenanthrene	10.0			10.5		ug/L		105	60 - 125		
Anthracene	10.0			9.43		ug/L		94	60 - 130		
Fluoranthene	10.0			10.9		ug/L		109	70 - 140		
Pyrene	10.0			10.9		ug/L		109	65 - 130		
Benzo[a]anthracene	10.0			9.98		ug/L		100	65 - 125		
Chrysene	10.0			9.52		ug/L		95	65 - 125		
Benzo[b]fluoranthene	10.0			9.78		ug/L		98	65 - 130		
Benzo[k]fluoranthene	10.0			9.01		ug/L		90	65 - 130		
Benzo[a]pyrene	10.0			8.69		ug/L		87	65 - 130		
Indeno[1,2,3-cd]pyrene	10.0			12.0		ug/L		120	55 - 140		
Dibenz(a,h)anthracene	9.99			12.4		ug/L		125	55 - 135		
Benzo[g,h,i]perylene	10.0			11.6		ug/L		116	55 - 130		
Surrogate	LCS	LCS	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	Prepared	Analyzed	Dil Fac
Terphenyl-d14			89		20 - 150				08/31/11 10:55	09/02/11 17:25	1

# QC Sample Results

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-28308-1

Project/Site: Sno Pac

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCSD 580-94181/21-A**

**Matrix: Water**

**Analysis Batch: 94460**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 94181**

Analyte	Spike	LCSD	LCSD	Unit	D	% Rec	% Rec.	RPD	RPD	Limit
	Added	Result	Qualifier				Limits	2	20	
Naphthalene	10.0	10.1		ug/L	101	50 - 125				
2-Methylnaphthalene	10.0	9.86		ug/L	98	60 - 130	1	20		
1-Methylnaphthalene	10.0	10.4		ug/L	104	50 - 125	2	20		
Acenaphthylene	9.99	10.7		ug/L	107	60 - 140	5	20		
Acenaphthene	10.0	10.4		ug/L	103	60 - 125	4	20		
Fluorene	10.0	10.1		ug/L	101	65 - 125	6	20		
Phenanthrene	10.0	10.9		ug/L	109	60 - 125	4	20		
Anthracene	10.0	10.6		ug/L	106	60 - 130	12	20		
Fluoranthene	10.0	11.2		ug/L	111	70 - 140	3	20		
Pyrene	10.0	11.2		ug/L	112	65 - 130	3	20		
Benzo[a]anthracene	10.0	10.6		ug/L	106	65 - 125	6	20		
Chrysene	10.0	9.82		ug/L	98	65 - 125	3	20		
Benzo[b]fluoranthene	10.0	10.5		ug/L	105	65 - 130	7	20		
Benzo[k]fluoranthene	10.0	9.52		ug/L	95	65 - 130	5	20		
Benzo[a]pyrene	10.0	9.89		ug/L	99	65 - 130	13	20		
Indeno[1,2,3-cd]pyrene	10.0	11.7		ug/L	117	55 - 140	3	20		
Dibenz(a,h)anthracene	9.99	11.9		ug/L	119	55 - 135	5	20		
Benzo[g,h,i]perylene	10.0	11.2		ug/L	112	55 - 130	4	20		

Surrogate	LCSD	LCSD	Limits
	% Recovery	Qualifier	
Terphenyl-d14	89		20 - 150

## Method: 8021B - Volatile Organic Compounds (GC)

**Lab Sample ID: MB 580-94689/4**

**Matrix: Water**

**Analysis Batch: 94689**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			09/06/11 23:16	1
Toluene	ND		0.50		ug/L			09/06/11 23:16	1
Ethylbenzene	ND		0.50		ug/L			09/06/11 23:16	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/06/11 23:16	1
o-Xylene	ND		1.0		ug/L			09/06/11 23:16	1
Xylenes, Total	ND		1.0		ug/L			09/06/11 23:16	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
a,a,a-Trifluorotoluene	109		50 - 150		09/06/11 23:16	1
4-Bromofluorobenzene (Surr)	102		80 - 130		09/06/11 23:16	1

**Lab Sample ID: LCS 580-94689/5**

**Matrix: Water**

**Analysis Batch: 94689**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike	LCs	LCs	Unit	D	% Rec	Limits
	Added	Result	Qualifier				
Benzene	25.0	24.0		ug/L	96	80 - 125	
Toluene	25.0	24.1		ug/L	96	80 - 120	
Ethylbenzene	25.0	23.6		ug/L	94	80 - 125	
m-Xylene & p-Xylene	50.0	48.6		ug/L	97	75 - 120	

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Lab Sample ID: LCS 580-94689/5**

**Matrix: Water**

**Analysis Batch: 94689**

Analyte		Spike	LCS	LCS	Unit	D	% Rec.	Limits
		Added	Result	Qualifier				
o-Xylene		25.0	24.0		ug/L		96	75 - 120
<b>Surrogate</b>								
Surrogate		LCS	LCS	Limits	Unit	D	% Rec.	RPD
		% Recovery	Qualifier					
a,a,a-Trifluorotoluene		102		50 - 150				
4-Bromofluorobenzene (Surr)		100		80 - 130				

**Lab Sample ID: LCSD 580-94689/6**

**Matrix: Water**

**Analysis Batch: 94689**

Analyte		Spike	LCSD	LCSD	Unit	D	% Rec.	Limits	RPD	Limit
		Added	Result	Qualifier						
Benzene		25.0	23.3		ug/L		93	80 - 125	3	20
Toluene		25.0	23.2		ug/L		93	80 - 120	4	20
Ethylbenzene		25.0	22.8		ug/L		91	80 - 125	3	20
m-Xylene & p-Xylene		50.0	46.8		ug/L		94	75 - 120	4	20
o-Xylene		25.0	23.2		ug/L		93	75 - 120	3	20
<b>Surrogate</b>										
Surrogate		LCS	LCS	Limits	Unit	D	% Rec.	Limits	RPD	Limit
		% Recovery	Qualifier							
a,a,a-Trifluorotoluene		96		50 - 150						
4-Bromofluorobenzene (Surr)		100		80 - 130						

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-94921/5**

**Matrix: Water**

**Analysis Batch: 94921**

Analyte		MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Result	Qualifier							
Gasoline		ND		0.050		mg/L			09/08/11 18:05	1
<b>Surrogate</b>										
Surrogate		MB	MB	Limits	Unit	D	Prepared	Analyzed	Dil Fac	
		% Recovery	Qualifier							
4-Bromofluorobenzene (Surr)		90		50 - 150					09/08/11 18:05	1
Trifluorotoluene (Surr)		110		50 - 150					09/08/11 18:05	1

**Lab Sample ID: LCS 580-94921/6**

**Matrix: Water**

**Analysis Batch: 94921**

Analyte		Spike	LCS	LCS	Unit	D	% Rec.	Limits
		Added	Result	Qualifier				
Gasoline		1.00	0.849		ug/L		85	79 - 110
<b>Surrogate</b>								
Surrogate		LCS	LCS	Limits	Unit	D	% Rec.	RPD
		% Recovery	Qualifier					
4-Bromofluorobenzene (Surr)		92		50 - 150				
Trifluorotoluene (Surr)		96		50 - 150				

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCSD 580-94921/7**

**Matrix: Water**

**Analysis Batch: 94921**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike		LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit
	Added	1.00								
Gasoline			0.877		mg/L		88	79 - 110	3	20
<b>Surrogate</b>	<b>LCSD</b>	<b>LCSD</b>								
	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>						
4-Bromofluorobenzene (Surrogate)	92			50 - 150						
Trifluorotoluene (Surrogate)	100			50 - 150						

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 580-94103/1-A**

**Matrix: Water**

**Analysis Batch: 94959**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94103**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
PCB-1221	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
PCB-1232	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
PCB-1242	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
PCB-1248	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
PCB-1254	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
PCB-1260	ND		0.50	ug/L		08/30/11 13:09	09/09/11 16:31		1
<b>Surrogate</b>	<b>MB</b>	<b>MB</b>							
	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>					
Tetrachloro-m-xylene	97			60 - 150					
DCB Decachlorobiphenyl	60			40 - 135					
						<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
						08/30/11 13:09	09/09/11 16:31		1
						08/30/11 13:09	09/09/11 16:31		1

**Lab Sample ID: LCS 580-94103/2-A**

**Matrix: Water**

**Analysis Batch: 94959**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94103**

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	% Rec.	Limits	RPD
	Added	1.00							
PCB-1016			0.908		ug/L		91	25 - 145	
PCB-1260			0.876		ug/L		88	30 - 145	
<b>Surrogate</b>	<b>LCS</b>	<b>LCS</b>							
	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>					
Tetrachloro-m-xylene	92			60 - 150					
DCB Decachlorobiphenyl	77			40 - 135					

**Lab Sample ID: LCSD 580-94103/3-A**

**Matrix: Water**

**Analysis Batch: 94959**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 94103**

Analyte	Spike		LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD
	Added	1.00							
PCB-1016			0.818		ug/L		82	25 - 145	10
PCB-1260			0.825		ug/L		83	30 - 145	6
<b>Surrogate</b>	<b>LCSD</b>	<b>LCSD</b>							
	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>					
Tetrachloro-m-xylene	82			60 - 150					
DCB Decachlorobiphenyl	67			40 - 135					

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID:** MB 580-94654/1-A

**Matrix:** Water

**Analysis Batch:** 94839

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 94654

Analyte	MB		RL	MDL	Unit	D	Prepared		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
#2 Diesel (C10-C24)	ND		0.13		mg/L	09/06/11 13:42	09/08/11 21:53	1	
Motor Oil (>C24-C36)	ND		0.25		mg/L	09/06/11 13:42	09/08/11 21:53	1	
<b>Surrogate</b>									
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
	100		50 - 150			09/06/11 13:42	09/08/11 21:53	1	

**Lab Sample ID:** MB 580-94654/1-A

**Matrix:** Water

**Analysis Batch:** 95214

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 94654

Analyte	MB		RL	MDL	Unit	D	Prepared		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
#2 Diesel (C10-C24)	ND		0.13		mg/L	09/06/11 13:42	09/13/11 10:34	1	
Motor Oil (>C24-C36)	ND		0.25		mg/L	09/06/11 13:42	09/13/11 10:34	1	
<b>Surrogate</b>									
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
	97		50 - 150			09/06/11 13:42	09/13/11 10:34	1	

**Lab Sample ID:** LCS 580-94654/2-A

**Matrix:** Water

**Analysis Batch:** 94839

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 94654

Analyte	Spike		Result	LCS	LCS	Unit	D	% Rec.	
	Added	Result	Qualifer	Unit	D	% Rec	Limits		
#2 Diesel (C10-C24)	5.00	4.99		mg/L	100	70 - 140			
Motor Oil (>C24-C36)	5.00	5.00		mg/L	100	66 - 125			
<b>Surrogate</b>									
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits						
	90		50 - 150						

**Lab Sample ID:** LCS 580-94654/2-A

**Matrix:** Water

**Analysis Batch:** 95214

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 94654

Analyte	Spike		Result	LCS	LCS	Unit	D	% Rec.	
	Added	Result	Qualifer	Unit	D	% Rec	Limits		
#2 Diesel (C10-C24)	5.00	4.89		mg/L	98	70 - 140			
Motor Oil (>C24-C36)	5.00	5.17		mg/L	103	66 - 125			
<b>Surrogate</b>									
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits						
	84		50 - 150						

**Lab Sample ID:** LCSD 580-94654/3-A

**Matrix:** Water

**Analysis Batch:** 94839

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 94654

Analyte	Spike		Result	LCSD	LCSD	Unit	D	% Rec.	
	Added	Result	Qualifer	Unit	D	% Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	5.00	5.22		mg/L	104	70 - 140	4	27	
Motor Oil (>C24-C36)	5.00	5.23		mg/L	105	66 - 125	4	27	

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID:** LCSD 580-94654/3-A

**Matrix:** Water

**Analysis Batch:** 94839

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 94654

Surrogate	LCSD	LCSD	
	% Recovery	Qualifier	Limits
<i>o-Terphenyl</i>	94		50 - 150

**Lab Sample ID:** LCSD 580-94654/3-A

**Matrix:** Water

**Analysis Batch:** 95214

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 94654

Analyte	Spike	LCSD	LCSD		% Rec.	RPD
	Added	Result	Qualifier	Unit	D	Limit
#2 Diesel (C10-C24)	5.00	5.16		mg/L	103	70 - 140
Motor Oil (>C24-C36)	5.00	5.45		mg/L	109	66 - 125

Surrogate	LCSD	LCSD		
	% Recovery	Qualifier	Limits	
<i>o-Terphenyl</i>	90		50 - 150	

## Method: 6010B - Metals (ICP)

**Lab Sample ID:** MB 580-94762/21-A

**Matrix:** Water

**Analysis Batch:** 94885

**Client Sample ID:** Method Blank

**Prep Type:** Total Recoverable

**Prep Batch:** 94762

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic			ND		0.060		mg/L		09/07/11 14:03	09/07/11 19:49	1
Cadmium			ND		0.010		mg/L		09/07/11 14:03	09/07/11 19:49	1
Chromium			ND		0.025		mg/L		09/07/11 14:03	09/07/11 19:49	1
Copper			ND		0.020		mg/L		09/07/11 14:03	09/07/11 19:49	1
Lead			ND		0.030		mg/L		09/07/11 14:03	09/07/11 19:49	1
Silver			ND		0.020		mg/L		09/07/11 14:03	09/07/11 19:49	1
Zinc			ND		0.040		mg/L		09/07/11 14:03	09/07/11 19:49	1

**Lab Sample ID:** LCS 580-94762/22-A

**Matrix:** Water

**Analysis Batch:** 94885

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total Recoverable

**Prep Batch:** 94762

Analyte	Spike	LCS	LCS		% Rec.	
	Added	Result	Qualifier	Unit	D	Limits
Arsenic	4.00	4.03		mg/L	101	80 - 120
Cadmium	0.100	0.110		mg/L	110	80 - 120
Chromium	0.400	0.400		mg/L	100	80 - 120
Copper	0.500	0.494		mg/L	99	80 - 120
Lead	1.00	0.992		mg/L	99	80 - 120
Silver	0.600	0.618		mg/L	103	80 - 120
Zinc	1.00	0.996		mg/L	100	80 - 120

**Lab Sample ID:** LCSD 580-94762/23-A

**Matrix:** Water

**Analysis Batch:** 94885

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total Recoverable

**Prep Batch:** 94762

Analyte	Spike	LCSD	LCSD		% Rec.	RPD
	Added	Result	Qualifier	Unit	D	Limit
Arsenic	4.00	3.97		mg/L	99	80 - 120
Cadmium	0.100	0.108		mg/L	108	80 - 120
Chromium	0.400	0.387		mg/L	97	80 - 120

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 580-94762/23-A**

**Matrix: Water**

**Analysis Batch: 94885**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total Recoverable**

**Prep Batch: 94762**

Analyte		Spike	LCSD	LCSD	% Rec.			RPD	Limit	
		Added	Result	Qualifier	Unit	D	% Rec	RPD	Limit	
Copper		0.500	0.484		mg/L		97	80 - 120	2	20
Lead		1.00	0.984		mg/L		98	80 - 120	1	20
Silver		0.600	0.621		mg/L		103	80 - 120	1	20
Zinc		1.00	0.978		mg/L		98	80 - 120	2	20

**Lab Sample ID: 580-28308-14 MS**

**Matrix: Water**

**Analysis Batch: 94885**

**Client Sample ID: 082511-FB3-GW**

**Prep Type: Total Recoverable**

**Prep Batch: 94762**

Analyte	Sample	Sample	Spike	MS	MS	% Rec.			RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Arsenic	ND		4.00	4.07		mg/L		102	80 - 120
Cadmium	ND		0.100	0.110		mg/L		110	80 - 120
Chromium	ND		0.400	0.403		mg/L		98	80 - 120
Copper	ND		0.500	0.503		mg/L		99	80 - 120
Lead	ND		1.00	1.01		mg/L		101	80 - 120
Silver	ND		0.600	0.599		mg/L		100	80 - 120
Zinc	ND		1.00	1.02		mg/L		100	80 - 120

**Lab Sample ID: 580-28308-14 MSD**

**Matrix: Water**

**Analysis Batch: 94885**

**Client Sample ID: 082511-FB3-GW**

**Prep Type: Total Recoverable**

**Prep Batch: 94762**

Analyte	Sample	Sample	Spike	MSD	MSD	% Rec.			RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Arsenic	ND		4.00	3.90		mg/L		98	80 - 120
Cadmium	ND		0.100	0.105		mg/L		105	80 - 120
Chromium	ND		0.400	0.388		mg/L		94	80 - 120
Copper	ND		0.500	0.482		mg/L		94	80 - 120
Lead	ND		1.00	0.973		mg/L		97	80 - 120
Silver	ND		0.600	0.567		mg/L		95	80 - 120
Zinc	ND		1.00	0.977		mg/L		96	80 - 120

**Lab Sample ID: 580-28308-14 DU**

**Matrix: Water**

**Analysis Batch: 94885**

**Client Sample ID: 082511-FB3-GW**

**Prep Type: Total Recoverable**

**Prep Batch: 94762**

Analyte	Sample	Sample	DU	DU	% Rec.			RPD
	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Arsenic	ND		ND		mg/L		NC	20
Cadmium	ND		ND		mg/L		NC	20
Chromium	ND		ND		mg/L		NC	20
Copper	ND		ND		mg/L		NC	20
Lead	ND		ND		mg/L		NC	20
Silver	ND		ND		mg/L		NC	20
Zinc	ND		ND		mg/L		NC	20

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID:** MB 580-94751/16-B

**Matrix:** Water

**Analysis Batch:** 95038

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 94983

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	ND									

**Lab Sample ID:** LCS 580-94983/24-A

**Matrix:** Water

**Analysis Batch:** 95038

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 94983

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	Limits	% Rec.	RPD
	Mercury	Added	0.00200	0.00217	mg/L	109	80 - 120	109	80 - 120	109	80 - 120

**Lab Sample ID:** LCSD 580-94983/25-A

**Matrix:** Water

**Analysis Batch:** 95038

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 94983

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	% Rec	Limits	% Rec.	RPD
	Mercury	Added	0.00200	0.00209	mg/L	104	80 - 120	104	80 - 120	104	80 - 120

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB1-GW**

**Lab Sample ID: 580-28308-3**

Date Collected: 08/25/11 12:00

Matrix: Water

Date Received: 08/26/11 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	94922	09/08/11 20:43	JMB	TAL SEA
Total/NA	Prep	3520C			94181	08/31/11 10:55	MT	TAL SEA
Total/NA	Analysis	8270C SIM		1	94460	09/02/11 19:02	AP	TAL SEA
Total/NA	Analysis	8021B		1	94689	09/07/11 07:35	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx	RA	1	94921	09/08/11 20:43	JMB	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	94839	09/08/11 23:30	ES	TAL SEA
Total/NA	Prep	3510C			94103	08/30/11 13:09	RS	TAL SEA
Total/NA	Analysis	8082		1	94959	09/09/11 17:13	BT	TAL SEA
Total Recoverable	Prep	3005A			94762	09/07/11 14:03	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	94885	09/07/11 21:07	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:14	FCW	TAL SEA

**Client Sample ID: 082511-FB4-GW**

**Lab Sample ID: 580-28308-6**

Date Collected: 08/25/11 12:50

Matrix: Water

Date Received: 08/26/11 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	95197	09/08/11 17:58	MAT	TAL SEA
Total/NA	Prep	3520C			94181	08/31/11 10:55	MT	TAL SEA
Total/NA	Analysis	8270C SIM		1	94460	09/02/11 19:22	AP	TAL SEA
Total/NA	Prep	3510C			94103	08/30/11 13:09	RS	TAL SEA
Total/NA	Analysis	8082		1	94959	09/09/11 17:27	BT	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 11:47	ES	TAL SEA
Total Recoverable	Prep	3005A			94762	09/07/11 14:03	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	94885	09/07/11 21:20	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:15	FCW	TAL SEA

**Client Sample ID: 082511-FB2-GW**

**Lab Sample ID: 580-28308-10**

Date Collected: 08/25/11 15:10

Matrix: Water

Date Received: 08/26/11 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	95197	09/08/11 18:25	MAT	TAL SEA
Total/NA	Prep	3520C			94181	08/31/11 10:55	MT	TAL SEA
Total/NA	Analysis	8270C SIM		1	94460	09/02/11 19:41	AP	TAL SEA
Total/NA	Analysis	NWTPH-Gx	RA	1	94921	09/08/11 21:05	JMB	TAL SEA
Total/NA	Prep	3510C			94103	08/30/11 13:09	RS	TAL SEA
Total/NA	Analysis	8082		1	94959	09/09/11 17:42	BT	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 12:11	ES	TAL SEA

## Lab Chronicle

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

**Client Sample ID: 082511-FB2-GW**

Date Collected: 08/25/11 15:10

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-10**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			94762	09/07/11 14:03	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	94885	09/07/11 21:13	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:17	FCW	TAL SEA

**Client Sample ID: 082511-FB3-GW**

Date Collected: 08/25/11 17:15

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-14**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	95197	09/08/11 18:51	MAT	TAL SEA
Total/NA	Prep	3520C			94181	08/31/11 10:55	MT	TAL SEA
Total/NA	Analysis	8270C SIM		1	94460	09/02/11 20:01	AP	TAL SEA
Total/NA	Analysis	NWTPH-Gx	RA	1	94921	09/08/11 22:12	JMB	TAL SEA
Total/NA	Prep	3510C			94103	08/30/11 13:09	RS	TAL SEA
Total/NA	Analysis	8082		1	94959	09/09/11 17:56	BT	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 12:35	ES	TAL SEA
Total Recoverable	Prep	3005A			94762	09/07/11 13:59	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	94885	09/07/11 20:16	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:19	FCW	TAL SEA

**Client Sample ID: 082511-FB5-GW**

Date Collected: 08/25/11 19:00

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-18**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			94762	09/07/11 14:03	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	94885	09/07/11 21:27	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:20	FCW	TAL SEA

**Client Sample ID: TB-3**

Date Collected: 08/25/11 11:39

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-20**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	95197	09/08/11 14:52	MAT	TAL SEA

**Laboratory References:**

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

## Certification Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Sample Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-28308-3	082511-FB1-GW	Water	08/25/11 12:00	08/26/11 15:00
580-28308-6	082511-FB4-GW	Water	08/25/11 12:50	08/26/11 15:00
580-28308-10	082511-FB2-GW	Water	08/25/11 15:10	08/26/11 15:00
580-28308-14	082511-FB3-GW	Water	08/25/11 17:15	08/26/11 15:00
580-28308-18	082511-FB5-GW	Water	08/25/11 19:00	08/26/11 15:00
580-28308-20	TB-3	Water	08/25/11 11:39	08/26/11 15:00

## **CHAIN OF CUSTODY REPORT**

**Work Order #:** 28508

CLIENT: farallon Consulting LLC				INVOICE TO:		TURNAROUND REQUEST									
REPORT TO: Don Lance / farallon						in Business Days *									
ADDRESS: 475 5 <sup>th</sup> NW Suite 100						Organic & Inorganic Analyses									
PHONE: 425 295-0800 FAX: 425 0850						<input checked="" type="checkbox"/> 7	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<1			
PROJECT NAME: Sno Pac				P.O. NUMBER:		STD.				Petroleum Hydrocarbon Analyses					
PROJECT NUMBER: 879-000						<input checked="" type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<1					
SAMPLED BY: Jon, Anna						STD.				OTHER Specify:					
										* Turnaround Requests less than standard may incur Rush Charges.					
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE										MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
		(Cx/BTEX)	D <sub>X</sub>	D <sub>AFT</sub>	As,Cd,Cu, Hg,Pb,Zn	VOCs	PCBs								
082511-FB1-9.5 1	8/25/11 1035											S	3		-1
082511-FB1-10.8 2			1040									S	3		-2
082511-FB1-GW 3			1200	X	X	X	X					W	11		-3
082511-FB4-8.7 4			1155									S	3		-4
082511-FB4-15.8 5			1220									S	3		-5
082511-FB4-GW 6			1250	X	X	X	X	X				W	13		-6
082511-FB2-5.2 7			1355									S	3		-7
082511-FB2-12.5 8			1405									S	3		-8
082511-FB2-16.0 9			1420									S	4		-9
082511-FB2-GW 10			1510	X	X	X	X	X	X			W	18		-10
RELEASED BY: PRINT NAME: Jon Peterson	FIRM: farallon	DATE: 08/26/11	RECEIVED BY: PRINT NAME: Francisco Lina, Jr	FIRM: TA-SEA	DATE: 8/26/11										
RELEASED BY: PRINT NAME:	FIRM:	TIME: 1000	RECEIVED BY: PRINT NAME:	FIRM:	TIME: 1100										
ADDITIONAL REMARKS: Hold soils for Don						TEMP:	PAGE 1 OF 2								

## CHAIN OF CUSTODY REPORT

Work Order #: 28308

CLIENT: <i>Farallon Consulting LLC</i>		INVOICE TO:		TURNAROUND REQUEST																				
REPORT TO: <i>Don Lance</i>				in Business Days *																				
ADDRESS: <i>175 5th NW Sasquah WA 98027</i>				Organic & Inorganic Analyses																				
PHONE: <i>425 295 0800</i>		FAX: <i>0850</i>		<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1																				
PROJECT NAME: <i>Sno Pac</i>		P.O. NUMBER:		Petroleum Hydrocarbon Analyses																				
PROJECT NUMBER: <i>879 001</i>				<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1																				
SAMPLED BY: <i>Don P Anna S.</i>				STD.																				
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		PRESERVATIVE										OTHER										
<i>082511-FB3-7-6</i> <i>082511-FB3-14-9</i> <i>082511-FB3-17-0</i> <i>082511-FB3-GW</i> <i>082511-FB5-6-2</i> <i>082511-FB5-10-2</i> <i>082511-FB5-18-0</i> <i>082511-FB5-GW</i> <i>TB-2</i> <i>TB-3</i>	<i>8/25/11</i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i>	<i>1615</i> <i>1620</i> <i>1630</i> <i>1715</i> <i>1820</i> <i>1830</i> <i>1840</i> <i>1900</i> <i>1138</i> <i>1139</i>	<i>Gx/137Ex</i> <i></i> <i></i> <i></i> <i>X</i> <i></i> <i></i> <i></i> <i></i> <i></i>	<i>DX</i> <i></i> <i></i> <i></i> <i>X</i> <i></i> <i></i> <i></i> <i></i> <i></i>	<i>PAH</i> <i></i> <i></i> <i></i> <i>X</i> <i></i> <i></i> <i></i> <i></i> <i></i>	<i>45, Cad, Cr, Hg, Cu, Hg, Pb, Zn</i> <i></i> <i></i> <i></i> <i>X</i> <i></i> <i></i> <i></i> <i></i> <i></i>	REQUESTED ANALYSES										Specify:							
							<i>VOC</i>										<i>PCB</i>							
																					* Turnaround Requests less than standard may incur Rush Charges.			
							MATRIX (W, S, O)		# OF CONT.		LOCATION/ COMMENTS		TA WO ID											
							<i>S</i>		<i>3</i>				<i>-11</i>											
							<i>S</i>		<i>4</i>				<i>-12</i>											
							<i>S</i>		<i>4</i>				<i>-13</i>											
							<i>W</i>		<i>18</i>				<i>-14</i>											
							<i>S</i>		<i>2</i>				<i>-15</i>											
							<i>S</i>		<i>1(1)</i>				<i>-16</i>											
<i>S</i>		<i>4</i>				<i>-17</i>																		
<i>W</i>		<i>10</i>				<i>-18</i>																		
<i>S</i>		<i>1</i>				<i>-19</i>																		
<i>W</i>		<i>1</i>				<i>-20</i>																		
RELEASED BY: <i>Don Peterson</i>		FIRM: <i>farallon</i>		DATE: <i>8-26-11</i>		RECEIVED BY: <i>Francisco Lunes, Jr</i>		FIRM: <i>TA-SEA</i>		DATE: <i>8/26/11</i>														
PRINT NAME: <i>Don Peterson</i>				TIME: <i>1100</i>						TIME: <i>1100</i>														
RELEASED BY: <i></i>		FIRM: <i></i>		DATE: <i></i>		RECEIVED BY: <i></i>		FIRM: <i></i>		DATE: <i></i>														
PRINT NAME: <i></i>				TIME: <i></i>																				
ADDITIONAL REMARKS: <i>Hold soils for Don</i>												TEMP: <i></i>	PAGE <i>2</i> OF <i>2</i>											

TAL-1000(0108)

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-28308-1

**Login Number: 28308**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Luna, Francisco**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-28309-1

Client Project/Site: Sno Pac

For:

Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Donald Lance

Kristine D. Allen

Authorized for release by:  
09/27/2011 10:46:56 AM

Kristine Allen  
Project Manager I  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Case Narrative

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

### Job ID: 580-28309-1

#### Laboratory: TestAmerica Seattle

##### Narrative

##### Receipt

All samples were received in good condition within temperature requirements.

Samples were logged in following the Chain of Custody (COC) submitted with the samples. Client emailed revised COCs to project manager later that day. The project manager did not realize that the emailed COCs were different from the COCs that accompanied the samples. The error was not discovered until the samples had expired. The samples were then logged in following the revised COCs and tested out of hold.

##### GC/MS VOA - Method NWTPH-Gx

The following samples were reanalyzed (RA) due to a failing LCSD in the original analysis: 082611-FB8-GW (580-28309-8), 082611-FB7-GW (580-28309-11) and 082611-FB9-GW (580-28309-14)

No other analytical or quality issues were noted.

##### GC/MS Semi VOA

No analytical or quality issues were noted.

##### GC Semi VOA - Method 8082

The relative percent difference (RPD) for PCB-1260 between the laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) associated with batch 94959 exceeded the QC acceptance limits. The recovery of this compound in both the LCS and LCSD was within quality control limits. No further action was taken on this outlier.

Recovery of the surrogate DCB Decachlorobiphenyl in sample 082611-FB6-GW (580-28309-5) exceeded quality control limits due to matrix interference. The anomaly was flagged "X."

The following samples required a sulfuric acid clean-up to reduce matrix interferences (Sulfuric acid lots 709195 and K03051): 082611-FB6-GW (580-28309-5) and 082611-Wipe (580-28309-15).

##### GC Semi VOA - Method NWTPH-Dx

For samples 082611-FB6-GW (580-28309-5), 082611-FB8-GW (580-28309-8), 082611-FB7-GW (580-28309-11), 082611-FB9-GW (580-28309-14) the results in the C10-C24 range are due to a mineral/transformer oil range product. The affected analyte ranges have been qualified with the "Y" qualifier and reported.

No other analytical or quality issues were noted.

##### Metals

No analytical or quality issues were noted.

##### Organic Prep

No analytical or quality issues were noted.

## Definitions/Glossary

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.
*	RPD of the LCS and LCSD exceeds the control limits
X	Surrogate is outside control limits
H	Sample was prepped or analyzed beyond the specified holding time

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: TB-4-082611**

Date Collected: 08/26/11 10:48

Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-1**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/09/11 01:02	1
Chloromethane	ND		5.0		ug/L			09/09/11 01:02	1
Vinyl chloride	ND		1.0		ug/L			09/09/11 01:02	1
Bromomethane	ND		5.0		ug/L			09/09/11 01:02	1
Chloroethane	ND		5.0		ug/L			09/09/11 01:02	1
Trichlorofluoromethane	ND		1.0		ug/L			09/09/11 01:02	1
1,1-Dichloroethene	ND		1.0		ug/L			09/09/11 01:02	1
Methylene Chloride	ND		3.0		ug/L			09/09/11 01:02	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/09/11 01:02	1
1,1-Dichloroethane	ND		1.0		ug/L			09/09/11 01:02	1
2,2-Dichloropropane	ND		1.0		ug/L			09/09/11 01:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/09/11 01:02	1
Chlorobromomethane	ND		1.0		ug/L			09/09/11 01:02	1
Chloroform	ND		1.0		ug/L			09/09/11 01:02	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/09/11 01:02	1
Carbon tetrachloride	ND		1.0		ug/L			09/09/11 01:02	1
1,1-Dichloropropene	ND		1.0		ug/L			09/09/11 01:02	1
Benzene	ND		1.0		ug/L			09/09/11 01:02	1
1,2-Dichloroethane	ND		1.0		ug/L			09/09/11 01:02	1
Trichloroethene	ND		1.0		ug/L			09/09/11 01:02	1
1,2-Dichloropropane	ND		1.0		ug/L			09/09/11 01:02	1
Dibromomethane	ND		1.0		ug/L			09/09/11 01:02	1
Dichlorobromomethane	ND		1.0		ug/L			09/09/11 01:02	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/09/11 01:02	1
Toluene	ND		1.0		ug/L			09/09/11 01:02	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/09/11 01:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/09/11 01:02	1
Tetrachloroethene	ND		1.0		ug/L			09/09/11 01:02	1
1,3-Dichloropropane	ND		1.0		ug/L			09/09/11 01:02	1
Chlorodibromomethane	ND		1.0		ug/L			09/09/11 01:02	1
Ethylene Dibromide	ND		1.0		ug/L			09/09/11 01:02	1
Chlorobenzene	ND		1.0		ug/L			09/09/11 01:02	1
Ethylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/09/11 01:02	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/09/11 01:02	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/09/11 01:02	1
o-Xylene	ND		1.0		ug/L			09/09/11 01:02	1
Styrene	ND		1.0		ug/L			09/09/11 01:02	1
Bromoform	ND		1.0		ug/L			09/09/11 01:02	1
Isopropylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
Bromobenzene	ND		1.0		ug/L			09/09/11 01:02	1
N-Propylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/09/11 01:02	1
2-Chlorotoluene	ND		1.0		ug/L			09/09/11 01:02	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
4-Chlorotoluene	ND		1.0		ug/L			09/09/11 01:02	1
tert-Butylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
sec-Butylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/09/11 01:02	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: TB-4-082611**

**Lab Sample ID: 580-28309-1**

Date Collected: 08/26/11 10:48

Matrix: Water

Date Received: 08/26/11 16:20

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			09/09/11 01:02	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/09/11 01:02	1
n-Butylbenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/09/11 01:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/09/11 01:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/09/11 01:02	1
Hexachlorobutadiene	ND		1.0		ug/L			09/09/11 01:02	1
Naphthalene	ND		1.0		ug/L			09/09/11 01:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/09/11 01:02	1
<hr/>									
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	105		80 - 120					09/09/11 01:02	1
Toluene-d8 (Surr)	98		85 - 120					09/09/11 01:02	1
Ethylbenzene-d10	100		80 - 120					09/09/11 01:02	1
4-Bromofluorobenzene (Surr)	99		75 - 120					09/09/11 01:02	1
Trifluorotoluene (Surr)	112		80 - 120					09/09/11 01:02	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB6-1.1**

Date Collected: 08/26/11 08:00  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-3**

Matrix: Solid  
Percent Solids: 72.3

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.022		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:01	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB6-GW**

**Lab Sample ID: 580-28309-5**

**Matrix: Water**

Date Collected: 08/26/11 09:00  
Date Received: 08/26/11 16:20

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
2-Methylnaphthalene	ND		0.13		ug/L		09/01/11 10:36	09/09/11 19:43	1
1-Methylnaphthalene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Acenaphthylene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Acenaphthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Fluorene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Phenanthrene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Anthracene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Fluoranthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Pyrene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Benzo[a]anthracene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Chrysene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Benzo[b]fluoranthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Benzo[k]fluoranthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Benzo[a]pyrene	ND		0.20		ug/L		09/01/11 10:36	09/09/11 19:43	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 19:43	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	44		20 - 150				09/01/11 10:36	09/09/11 19:43	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
PCB-1221	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
PCB-1232	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
PCB-1242	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
PCB-1248	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
PCB-1254	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
PCB-1260	ND	H	0.50		ug/L		09/21/11 15:02	09/22/11 12:14	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	60		60 - 150				09/21/11 15:02	09/22/11 12:14	1
DCB Decachlorobiphenyl	33	X	40 - 135				09/21/11 15:02	09/22/11 12:14	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.18	Y	0.13		mg/L		09/06/11 13:43	09/13/11 12:59	1
Motor Oil (>C24-C36)	0.28	Y	0.25		mg/L		09/06/11 13:43	09/13/11 12:59	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	103		50 - 150				09/06/11 13:43	09/13/11 12:59	1

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/08/11 09:52	09/08/11 21:54	1
Cadmium	ND		0.010		mg/L		09/08/11 09:52	09/08/11 21:54	1
Chromium	0.033		0.025		mg/L		09/08/11 09:52	09/08/11 21:54	1
Copper	0.035		0.020		mg/L		09/08/11 09:52	09/08/11 21:54	1
Lead	ND		0.030		mg/L		09/08/11 09:52	09/08/11 21:54	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB6-GW**

**Lab Sample ID: 580-28309-5**

Date Collected: 08/26/11 09:00

Matrix: Water

Date Received: 08/26/11 16:20

## Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.020		mg/L		09/08/11 09:52	09/08/11 21:54	1
Zinc	ND		0.040		mg/L		09/08/11 09:52	09/08/11 21:54	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 12:59	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB8-GW**

**Lab Sample ID: 580-28309-8**

**Matrix: Water**

Date Collected: 08/26/11 10:30  
Date Received: 08/26/11 16:20

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
2-Methylnaphthalene	ND		0.13		ug/L		09/01/11 10:36	09/09/11 20:03	1
1-Methylnaphthalene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Acenaphthylene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Acenaphthene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Fluorene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Phenanthrene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Anthracene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Fluoranthene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Pyrene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Benzo[a]anthracene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Chrysene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Benzo[b]fluoranthene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Benzo[k]fluoranthene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Benzo[a]pyrene	ND		0.20		ug/L		09/01/11 10:36	09/09/11 20:03	1
Indeno[1,2,3-cd]pyrene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Dibenz(a,h)anthracene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
Benzo[g,h,i]perylene	ND		0.098		ug/L		09/01/11 10:36	09/09/11 20:03	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	77		20 - 150				09/01/11 10:36	09/09/11 20:03	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L		09/07/11 10:13		1
Toluene	ND		0.50		ug/L		09/07/11 10:13		1
Ethylbenzene	ND		0.50		ug/L		09/07/11 10:13		1
m-Xylene & p-Xylene	ND		1.0		ug/L		09/07/11 10:13		1
o-Xylene	ND		1.0		ug/L		09/07/11 10:13		1
Xylenes, Total	ND		1.0		ug/L		09/07/11 10:13		1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	110		50 - 150				09/07/11 10:13		1
4-Bromofluorobenzene (Surr)	102		80 - 130				09/07/11 10:13		1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L		09/08/11 22:58		1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	90		50 - 150				09/08/11 22:58		1
Trifluorotoluene (Surr)	105		50 - 150				09/08/11 22:58		1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.60	Y	0.13		mg/L		09/06/11 13:43	09/13/11 13:24	1
Motor Oil (>C24-C36)	0.91	Y	0.25		mg/L		09/06/11 13:43	09/13/11 13:24	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	99		50 - 150				09/06/11 13:43	09/13/11 13:24	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB8-GW**

**Lab Sample ID: 580-28309-8**

Date Collected: 08/26/11 10:30

Matrix: Water

Date Received: 08/26/11 16:20

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/08/11 09:52	09/08/11 22:01	1
Cadmium	ND		0.010		mg/L		09/08/11 09:52	09/08/11 22:01	1
Chromium	ND		0.025		mg/L		09/08/11 09:52	09/08/11 22:01	1
Copper	ND		0.020		mg/L		09/08/11 09:52	09/08/11 22:01	1
Lead	ND		0.030		mg/L		09/08/11 09:52	09/08/11 22:01	1
Silver	ND		0.020		mg/L		09/08/11 09:52	09/08/11 22:01	1
Zinc	ND		0.040		mg/L		09/08/11 09:52	09/08/11 22:01	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000020		mg/L		09/09/11 09:44	09/09/11 13:05	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB7-GW**

**Lab Sample ID: 580-28309-11**

Matrix: Water

Date Collected: 08/26/11 12:00  
Date Received: 08/26/11 16:20

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
2-Methylnaphthalene	ND		0.13		ug/L		09/01/11 10:36	09/09/11 20:23	1
1-Methylnaphthalene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Acenaphthylene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Acenaphthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Fluorene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Phenanthrene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Anthracene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Fluoranthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Pyrene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Benzo[a]anthracene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Chrysene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Benzo[b]fluoranthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Benzo[k]fluoranthene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Benzo[a]pyrene	ND		0.20		ug/L		09/01/11 10:36	09/09/11 20:23	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		09/01/11 10:36	09/09/11 20:23	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	58		20 - 150				09/01/11 10:36	09/09/11 20:23	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L		09/07/11 10:39		1
Toluene	ND		0.50		ug/L		09/07/11 10:39		1
Ethylbenzene	ND		0.50		ug/L		09/07/11 10:39		1
m-Xylene & p-Xylene	ND		1.0		ug/L		09/07/11 10:39		1
o-Xylene	ND		1.0		ug/L		09/07/11 10:39		1
Xylenes, Total	ND		1.0		ug/L		09/07/11 10:39		1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	111		50 - 150				09/07/11 10:39		1
4-Bromofluorobenzene (Surr)	103		80 - 130				09/07/11 10:39		1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L		09/08/11 23:20		1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	90		50 - 150				09/08/11 23:20		1
Trifluorotoluene (Surr)	106		50 - 150				09/08/11 23:20		1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.19	Y	0.13		mg/L		09/06/11 13:43	09/13/11 13:48	1
Motor Oil (>C24-C36)	0.36	Y	0.25		mg/L		09/06/11 13:43	09/13/11 13:48	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	101		50 - 150				09/06/11 13:43	09/13/11 13:48	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB7-GW**

Date Collected: 08/26/11 12:00

Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-11**

Matrix: Water

**Method: 6010B - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/08/11 09:52	09/08/11 22:08	1
Cadmium	ND		0.010		mg/L		09/08/11 09:52	09/08/11 22:08	1
Chromium	ND		0.025		mg/L		09/08/11 09:52	09/08/11 22:08	1
Copper	ND		0.020		mg/L		09/08/11 09:52	09/08/11 22:08	1
Lead	ND		0.030		mg/L		09/08/11 09:52	09/08/11 22:08	1
Silver	ND		0.020		mg/L		09/08/11 09:52	09/08/11 22:08	1
Zinc	ND		0.040		mg/L		09/08/11 09:52	09/08/11 22:08	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000020		mg/L		09/09/11 09:44	09/09/11 13:07	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB9-GW**

**Lab Sample ID: 580-28309-14**

**Matrix: Water**

Date Collected: 08/26/11 14:00  
Date Received: 08/26/11 16:20

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/09/11 01:28	1
Chloromethane	ND		5.0		ug/L			09/09/11 01:28	1
Vinyl chloride	ND		1.0		ug/L			09/09/11 01:28	1
Bromomethane	ND		5.0		ug/L			09/09/11 01:28	1
Chloroethane	ND		5.0		ug/L			09/09/11 01:28	1
Trichlorodifluoromethane	ND		1.0		ug/L			09/09/11 01:28	1
1,1-Dichloroethene	ND		1.0		ug/L			09/09/11 01:28	1
Methylene Chloride	ND		3.0		ug/L			09/09/11 01:28	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/09/11 01:28	1
1,1-Dichloroethane	ND		1.0		ug/L			09/09/11 01:28	1
2,2-Dichloropropane	ND		1.0		ug/L			09/09/11 01:28	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/09/11 01:28	1
Chlorobromomethane	ND		1.0		ug/L			09/09/11 01:28	1
Chloroform	ND		1.0		ug/L			09/09/11 01:28	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/09/11 01:28	1
Carbon tetrachloride	ND		1.0		ug/L			09/09/11 01:28	1
1,1-Dichloropropene	ND		1.0		ug/L			09/09/11 01:28	1
Benzene	ND		1.0		ug/L			09/09/11 01:28	1
1,2-Dichloroethane	ND		1.0		ug/L			09/09/11 01:28	1
Trichloroethene	ND		1.0		ug/L			09/09/11 01:28	1
1,2-Dichloropropane	ND		1.0		ug/L			09/09/11 01:28	1
Dibromomethane	ND		1.0		ug/L			09/09/11 01:28	1
Dichlorobromomethane	ND		1.0		ug/L			09/09/11 01:28	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/09/11 01:28	1
Toluene	ND		1.0		ug/L			09/09/11 01:28	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/09/11 01:28	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/09/11 01:28	1
Tetrachloroethene	ND		1.0		ug/L			09/09/11 01:28	1
1,3-Dichloropropane	ND		1.0		ug/L			09/09/11 01:28	1
Chlorodibromomethane	ND		1.0		ug/L			09/09/11 01:28	1
Ethylene Dibromide	ND		1.0		ug/L			09/09/11 01:28	1
Chlorobenzene	ND		1.0		ug/L			09/09/11 01:28	1
Ethylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/09/11 01:28	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/09/11 01:28	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/09/11 01:28	1
o-Xylene	ND		1.0		ug/L			09/09/11 01:28	1
Styrene	ND		1.0		ug/L			09/09/11 01:28	1
Bromoform	ND		1.0		ug/L			09/09/11 01:28	1
Isopropylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
Bromobenzene	ND		1.0		ug/L			09/09/11 01:28	1
N-Propylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/09/11 01:28	1
2-Chlorotoluene	ND		1.0		ug/L			09/09/11 01:28	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
4-Chlorotoluene	ND		1.0		ug/L			09/09/11 01:28	1
tert-Butylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
sec-Butylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/09/11 01:28	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB9-GW**

**Lab Sample ID: 580-28309-14**

Date Collected: 08/26/11 14:00

Matrix: Water

Date Received: 08/26/11 16:20

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			09/09/11 01:28	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/09/11 01:28	1
n-Butylbenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/09/11 01:28	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/09/11 01:28	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/09/11 01:28	1
Hexachlorobutadiene	ND		1.0		ug/L			09/09/11 01:28	1
Naphthalene	ND		1.0		ug/L			09/09/11 01:28	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/09/11 01:28	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	105		80 - 120					09/09/11 01:28	1
Toluene-d8 (Surr)	100		85 - 120					09/09/11 01:28	1
Ethylbenzene-d10	101		80 - 120					09/09/11 01:28	1
4-Bromofluorobenzene (Surr)	101		75 - 120					09/09/11 01:28	1
Trifluorotoluene (Surr)	109		80 - 120					09/09/11 01:28	1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
2-Methylnaphthalene	ND		0.13		ug/L			09/01/11 10:36	09/09/11 20:43
1-Methylnaphthalene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Acenaphthylene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Acenaphthene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Fluorene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Phenanthrene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Anthracene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Fluoranthene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Pyrene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Benzo[a]anthracene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Chrysene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Benzo[b]fluoranthene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Benzo[k]fluoranthene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Benzo[a]pyrene	ND		0.20		ug/L			09/01/11 10:36	09/09/11 20:43
Indeno[1,2,3-cd]pyrene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Dibenz(a,h)anthracene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
Benzo[g,h,i]perylene	ND		0.098		ug/L			09/01/11 10:36	09/09/11 20:43
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	65		20 - 150					09/01/11 10:36	09/09/11 20:43

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			09/08/11 23:43	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		50 - 150					09/08/11 23:43	1
Trifluorotoluene (Surr)	104		50 - 150					09/08/11 23:43	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB9-GW**

**Lab Sample ID: 580-28309-14**

Date Collected: 08/26/11 14:00

Matrix: Water

Date Received: 08/26/11 16:20

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
PCB-1221	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
PCB-1232	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
PCB-1242	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
PCB-1248	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
PCB-1254	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
PCB-1260	ND		0.48		ug/L		08/31/11 13:19	09/01/11 15:12	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		60 - 150				08/31/11 13:19	09/01/11 15:12	1
DCB Decachlorobiphenyl	47		40 - 135				08/31/11 13:19	09/01/11 15:12	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.21	Y	0.12		mg/L		09/06/11 13:43	09/13/11 14:12	1
Motor Oil (>C24-C36)	0.37	Y	0.24		mg/L		09/06/11 13:43	09/13/11 14:12	1
<b>Surrogate</b>									
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	102		50 - 150				09/06/11 13:43	09/13/11 14:12	1

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.060		mg/L		09/08/11 09:52	09/08/11 22:15	1
Cadmium	ND		0.010		mg/L		09/08/11 09:52	09/08/11 22:15	1
Chromium	ND		0.025		mg/L		09/08/11 09:52	09/08/11 22:15	1
Copper	ND		0.020		mg/L		09/08/11 09:52	09/08/11 22:15	1
Lead	ND		0.030		mg/L		09/08/11 09:52	09/08/11 22:15	1
Silver	ND		0.020		mg/L		09/08/11 09:52	09/08/11 22:15	1
Zinc	ND		0.040		mg/L		09/08/11 09:52	09/08/11 22:15	1

## Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/09/11 09:44	09/09/11 13:09	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-Wipe**

Date Collected: 08/26/11 14:30

Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-15**

Matrix: Wipe

**Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
PCB-1221	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
PCB-1232	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
PCB-1242	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
PCB-1248	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
<b>PCB-1254</b>	<b>3.8</b>		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
<b>PCB-1260</b>	<b>3.2 *</b>		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:55	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	79			60 - 120			09/08/11 14:05	09/09/11 22:55	1
DCB Decachlorobiphenyl	80			60 - 120			09/08/11 14:05	09/09/11 22:55	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 580-95194/6**

**Matrix: Water**

**Analysis Batch: 95194**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/08/11 22:49	1
Chloromethane	ND		5.0		ug/L			09/08/11 22:49	1
Vinyl chloride	ND		1.0		ug/L			09/08/11 22:49	1
Bromomethane	ND		5.0		ug/L			09/08/11 22:49	1
Chloroethane	ND		5.0		ug/L			09/08/11 22:49	1
Trichlorofluoromethane	ND		1.0		ug/L			09/08/11 22:49	1
1,1-Dichloroethene	ND		1.0		ug/L			09/08/11 22:49	1
Methylene Chloride	ND		3.0		ug/L			09/08/11 22:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 22:49	1
1,1-Dichloroethane	ND		1.0		ug/L			09/08/11 22:49	1
2,2-Dichloropropane	ND		1.0		ug/L			09/08/11 22:49	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/08/11 22:49	1
Chlorobromomethane	ND		1.0		ug/L			09/08/11 22:49	1
Chloroform	ND		1.0		ug/L			09/08/11 22:49	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/08/11 22:49	1
Carbon tetrachloride	ND		1.0		ug/L			09/08/11 22:49	1
1,1-Dichloropropene	ND		1.0		ug/L			09/08/11 22:49	1
Benzene	ND		1.0		ug/L			09/08/11 22:49	1
1,2-Dichloroethane	ND		1.0		ug/L			09/08/11 22:49	1
Trichloroethene	ND		1.0		ug/L			09/08/11 22:49	1
1,2-Dichloropropane	ND		1.0		ug/L			09/08/11 22:49	1
Dibromomethane	ND		1.0		ug/L			09/08/11 22:49	1
Dichlorobromomethane	ND		1.0		ug/L			09/08/11 22:49	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 22:49	1
Toluene	ND		1.0		ug/L			09/08/11 22:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/08/11 22:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/08/11 22:49	1
Tetrachloroethene	ND		1.0		ug/L			09/08/11 22:49	1
1,3-Dichloropropane	ND		1.0		ug/L			09/08/11 22:49	1
Chlorodibromomethane	ND		1.0		ug/L			09/08/11 22:49	1
Ethylene Dibromide	ND		1.0		ug/L			09/08/11 22:49	1
Chlorobenzene	ND		1.0		ug/L			09/08/11 22:49	1
Ethylbenzene	ND		1.0		ug/L			09/08/11 22:49	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 22:49	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/08/11 22:49	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/08/11 22:49	1
o-Xylene	ND		1.0		ug/L			09/08/11 22:49	1
Styrene	ND		1.0		ug/L			09/08/11 22:49	1
Bromoform	ND		1.0		ug/L			09/08/11 22:49	1
Isopropylbenzene	ND		1.0		ug/L			09/08/11 22:49	1
Bromobenzene	ND		1.0		ug/L			09/08/11 22:49	1
N-Propylbenzene	ND		1.0		ug/L			09/08/11 22:49	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/08/11 22:49	1
2-Chlorotoluene	ND		1.0		ug/L			09/08/11 22:49	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/08/11 22:49	1
4-Chlorotoluene	ND		1.0		ug/L			09/08/11 22:49	1
tert-Butylbenzene	ND		1.0		ug/L			09/08/11 22:49	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/08/11 22:49	1
sec-Butylbenzene	ND		1.0		ug/L			09/08/11 22:49	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 580-95194/6**

**Matrix: Water**

**Analysis Batch: 95194**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	MB	MB									
1,3-Dichlorobenzene	ND	ND			1.0		ug/L			09/08/11 22:49	1
4-Isopropyltoluene	ND	ND			1.0		ug/L			09/08/11 22:49	1
1,4-Dichlorobenzene	ND	ND			1.0		ug/L			09/08/11 22:49	1
n-Butylbenzene	ND	ND			1.0		ug/L			09/08/11 22:49	1
1,2-Dichlorobenzene	ND	ND			1.0		ug/L			09/08/11 22:49	1
1,2-Dibromo-3-Chloropropane	ND	ND			2.0		ug/L			09/08/11 22:49	1
1,2,4-Trichlorobenzene	ND	ND			1.0		ug/L			09/08/11 22:49	1
1,2,3-Trichlorobenzene	ND	ND			1.0		ug/L			09/08/11 22:49	1
Hexachlorobutadiene	ND	ND			1.0		ug/L			09/08/11 22:49	1
Naphthalene	ND	ND			1.0		ug/L			09/08/11 22:49	1
Methyl tert-butyl ether	ND	ND			1.0		ug/L			09/08/11 22:49	1
<hr/>											
Surrogate	MB	MB	% Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
	MB	MB									
Fluorobenzene (Surr)	104	104			80 - 120					09/08/11 22:49	1
Toluene-d8 (Surr)	96	96			85 - 120					09/08/11 22:49	1
Ethylbenzene-d10	103	103			80 - 120					09/08/11 22:49	1
4-Bromofluorobenzene (Surr)	100	100			75 - 120					09/08/11 22:49	1
Trifluorotoluene (Surr)	110	110			80 - 120					09/08/11 22:49	1

**Lab Sample ID: LCS 580-95194/9**

**Matrix: Water**

**Analysis Batch: 95194**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike			LCS			% Rec.		
	Added	Result	Qualifier	Unit	D	% Rec	Limits		
1,1-Dichloroethene	20.0	21.6		ug/L		108	70 - 130		
Benzene	20.0	20.5		ug/L		103	80 - 120		
Trichloroethene	20.0	19.4		ug/L		97	70 - 125		
Toluene	20.0	20.0		ug/L		100	75 - 120		
Chlorobenzene	20.0	20.6		ug/L		103	80 - 120		
<hr/>									
Surrogate	LCS			LCS					
	% Recovery	Qualifier	Limits						
Fluorobenzene (Surr)	104		80 - 120						
Toluene-d8 (Surr)	100		85 - 120						
Ethylbenzene-d10	104		80 - 120						
4-Bromofluorobenzene (Surr)	102		75 - 120						
Trifluorotoluene (Surr)	108		80 - 120						

**Lab Sample ID: LCSD 580-95194/10**

**Matrix: Water**

**Analysis Batch: 95194**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike			LCSD			% Rec.			RPD	
	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit		
1,1-Dichloroethene	20.0	22.0		ug/L		110	70 - 130	2	30		
Benzene	20.0	20.7		ug/L		104	80 - 120	1	30		
Trichloroethene	20.0	20.1		ug/L		101	70 - 125	4	30		
Toluene	20.0	20.5		ug/L		103	75 - 120	2	30		
Chlorobenzene	20.0	20.5		ug/L		103	80 - 120	0	30		

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 580-95194/10**

**Matrix: Water**

**Analysis Batch: 95194**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Surrogate	LCSD	LCSD	
	% Recovery	Qualifier	Limits
Fluorobenzene (Surr)	103		80 - 120
Toluene-d8 (Surr)	101		85 - 120
Ethylbenzene-d10	105		80 - 120
4-Bromofluorobenzene (Surr)	101		75 - 120
Trifluorotoluene (Surr)	113		80 - 120

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Lab Sample ID: MB 580-94291/1-A**

**Matrix: Water**

**Analysis Batch: 95043**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94291**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
2-Methylnaphthalene			ND		0.13		ug/L		09/01/11 10:36	09/09/11 18:42	1
1-Methylnaphthalene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Acenaphthylene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Acenaphthene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Fluorene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Phenanthrene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Anthracene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Fluoranthene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Pyrene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Benzo[a]anthracene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Chrysene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Benzo[b]fluoranthene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Benzo[k]fluoranthene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Benzo[a]pyrene			ND		0.20		ug/L		09/01/11 10:36	09/09/11 18:42	1
Indeno[1,2,3-cd]pyrene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Dibenz(a,h)anthracene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Benzo[g,h,i]perylene			ND		0.10		ug/L		09/01/11 10:36	09/09/11 18:42	1
Surrogate	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terphenyl-d14			85						09/01/11 10:36	09/09/11 18:42	1
Surrogate	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terphenyl-d14			85						09/01/11 10:36	09/09/11 18:42	1

**Lab Sample ID: LCS 580-94291/2-A**

**Matrix: Water**

**Analysis Batch: 95043**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94291**

Analyte	Spike	LCS	LCS	% Rec.		
	Added	Result	Qualifier	Unit	D	% Rec
Naphthalene	10.0	9.90		ug/L	99	50 - 125
2-Methylnaphthalene	10.0	10.3		ug/L	102	60 - 130
1-Methylnaphthalene	10.0	10.3		ug/L	103	50 - 125
Acenaphthylene	9.99	10.6		ug/L	106	60 - 140
Acenaphthene	10.0	10.4		ug/L	104	60 - 125
Fluorene	10.0	10.8		ug/L	107	65 - 125
Phenanthrene	10.0	11.1		ug/L	111	60 - 125
Anthracene	10.0	10.4		ug/L	104	60 - 130
Fluoranthene	10.0	11.0		ug/L	110	70 - 140

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCS 580-94291/2-A**

**Matrix: Water**

**Analysis Batch: 95043**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94291**

Analyte	Spike Added	LCS			Unit	D	% Rec	% Rec.	
		Result	Qualifier	Limits				Limits	RPD
Pyrene	10.0	10.9		ug/L		109	65 - 130		
Benzo[a]anthracene	10.0	10.2		ug/L		102	65 - 125		
Chrysene	10.0	10.2		ug/L		102	65 - 125		
Benzo[b]fluoranthene	10.0	10.7		ug/L		107	65 - 130		
Benzo[k]fluoranthene	10.0	11.0		ug/L		110	65 - 130		
Benzo[a]pyrene	10.0	9.78		ug/L		98	65 - 130		
Indeno[1,2,3-cd]pyrene	10.0	10.7		ug/L		107	55 - 140		
Dibenz(a,h)anthracene	9.99	11.3		ug/L		113	55 - 135		
Benzo[g,h,i]perylene	10.0	10.2		ug/L		102	55 - 130		
<hr/>									
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>						
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
Terphenyl-d14		89		20 - 150					

**Lab Sample ID: LCSD 580-94291/3-A**

**Matrix: Water**

**Analysis Batch: 95043**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 94291**

Analyte	Spike Added	LCSD			Unit	D	% Rec	% Rec.	
		Result	Qualifier	Limits				RPD	Limit
Naphthalene	10.0	10.3		ug/L		103	50 - 125	4	20
2-Methylnaphthalene	10.0	10.5		ug/L		105	60 - 130	2	20
1-Methylnaphthalene	10.0	10.5		ug/L		104	50 - 125	2	20
Acenaphthylene	9.99	10.4		ug/L		104	60 - 140	2	20
Acenaphthene	10.0	10.3		ug/L		103	60 - 125	1	20
Fluorene	10.0	10.5		ug/L		104	65 - 125	3	20
Phenanthrene	10.0	10.7		ug/L		107	60 - 125	4	20
Anthracene	10.0	10.0		ug/L		100	60 - 130	4	20
Fluoranthene	10.0	10.5		ug/L		105	70 - 140	4	20
Pyrene	10.0	10.4		ug/L		103	65 - 130	5	20
Benzo[a]anthracene	10.0	9.78		ug/L		98	65 - 125	4	20
Chrysene	10.0	9.94		ug/L		99	65 - 125	3	20
Benzo[b]fluoranthene	10.0	10.7		ug/L		107	65 - 130	0	20
Benzo[k]fluoranthene	10.0	10.8		ug/L		108	65 - 130	2	20
Benzo[a]pyrene	10.0	9.39		ug/L		94	65 - 130	4	20
Indeno[1,2,3-cd]pyrene	10.0	9.92		ug/L		99	55 - 140	8	20
Dibenz(a,h)anthracene	9.99	10.5		ug/L		105	55 - 135	8	20
Benzo[g,h,i]perylene	10.0	9.27		ug/L		93	55 - 130	9	20
<hr/>									
<b>Surrogate</b>		<b>LCSD</b>	<b>LCSD</b>						
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
Terphenyl-d14		83		20 - 150					

## Method: 8021B - Volatile Organic Compounds (GC)

**Lab Sample ID: MB 580-94689/4**

**Matrix: Water**

**Analysis Batch: 94689**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			09/06/11 23:16	1
Toluene	ND		0.50		ug/L			09/06/11 23:16	1

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Lab Sample ID:** MB 580-94689/4

**Matrix:** Water

**Analysis Batch:** 94689

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethylbenzene	ND		0.50		ug/L			09/06/11 23:16	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/06/11 23:16	1
o-Xylene	ND		1.0		ug/L			09/06/11 23:16	1
Xylenes, Total	ND		1.0		ug/L			09/06/11 23:16	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
a,a,a-Trifluorotoluene	109		50 - 150		09/06/11 23:16	1
4-Bromofluorobenzene (Surr)	102		80 - 130		09/06/11 23:16	1

**Lab Sample ID:** LCS 580-94689/5

**Matrix:** Water

**Analysis Batch:** 94689

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	Spike		Result	LCS Qualifier	Unit	D	% Rec	Limits	% Rec.
	Added								
Benzene	25.0		24.0		ug/L		96	80 - 125	
Toluene	25.0		24.1		ug/L		96	80 - 120	
Ethylbenzene	25.0		23.6		ug/L		94	80 - 125	
m-Xylene & p-Xylene	50.0		48.6		ug/L		97	75 - 120	
o-Xylene	25.0		24.0		ug/L		96	75 - 120	

Surrogate	LCS		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
a,a,a-Trifluorotoluene	102		50 - 150			
4-Bromofluorobenzene (Surr)	100		80 - 130			

**Lab Sample ID:** LCSD 580-94689/6

**Matrix:** Water

**Analysis Batch:** 94689

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

Analyte	Spike		Result	LCSD Qualifier	Unit	D	% Rec	Limits	RPD	Limit
	Added									
Benzene	25.0		23.3		ug/L		93	80 - 125	3	20
Toluene	25.0		23.2		ug/L		93	80 - 120	4	20
Ethylbenzene	25.0		22.8		ug/L		91	80 - 125	3	20
m-Xylene & p-Xylene	50.0		46.8		ug/L		94	75 - 120	4	20
o-Xylene	25.0		23.2		ug/L		93	75 - 120	3	20

Surrogate	LCSD		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
a,a,a-Trifluorotoluene	96		50 - 150			
4-Bromofluorobenzene (Surr)	100		80 - 130			

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

**Lab Sample ID:** MB 580-94921/5

**Matrix:** Water

**Analysis Batch:** 94921

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		0.050		mg/L			09/08/11 18:05	1

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID:** MB 580-94921/5

**Matrix:** Water

**Analysis Batch:** 94921

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Surrogate	MB	MB	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		90			50 - 150		09/08/11 18:05	1
Trifluorotoluene (Surr)		110			50 - 150		09/08/11 18:05	1

**Lab Sample ID:** LCS 580-94921/6

**Matrix:** Water

**Analysis Batch:** 94921

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	MB	MB	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	Limits
			Added								
Gasoline			1.00		0.849	mg/L			85	79 - 110	

Surrogate	LCs	LCs	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		92			50 - 150			
Trifluorotoluene (Surr)		96			50 - 150			

**Lab Sample ID:** LCSD 580-94921/7

**Matrix:** Water

**Analysis Batch:** 94921

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

Analyte	LCSD	LCSD	Spike	Added	Result	LCSD	Qualifier	Unit	D	% Rec	Limits	RPD
Gasoline			1.00		0.877	mg/L			88	79 - 110	3	20

Surrogate	LCSD	LCSD	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		92			50 - 150			
Trifluorotoluene (Surr)		100			50 - 150			

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID:** MB 580-94196/1-A

**Matrix:** Water

**Analysis Batch:** 94196

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 94196

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1
PCB-1221		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1
PCB-1232		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1
PCB-1242		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1
PCB-1248		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1
PCB-1254		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1
PCB-1260		ND			0.50	ug/L		08/31/11 11:23	09/01/11 14:16		1

Surrogate	MB	MB	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
Tetrachloro-m-xylene		79			60 - 150		08/31/11 11:23	09/01/11 14:16	
DCB Decachlorobiphenyl		84			40 - 135		08/31/11 11:23	09/01/11 14:16	

# QC Sample Results

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-28309-1

Project/Site: Sno Pac

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCS 580-94196/2-A**

**Matrix: Water**

**Analysis Batch: 94277**

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec.	
		Result	Qualifier			% Rec	Limits
PCB-1016	1.00	0.770		ug/L	77	25 - 145	
PCB-1260	1.00	0.771		ug/L	77	30 - 145	
<b>Surrogate</b>							
		LCS	LCS				
		% Recovery	Qualifier	Limits			
Tetrachloro-m-xylene	78			60 - 150			
DCB Decachlorobiphenyl	57			40 - 135			

**Lab Sample ID: LCSD 580-94196/3-A**

**Matrix: Water**

**Analysis Batch: 94277**

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec.		RPD
		Result	Qualifier			% Rec	Limits	RPD
PCB-1016	1.00	0.810		ug/L	81	25 - 145		5
PCB-1260	1.00	0.845		ug/L	85	30 - 145		9
<b>Surrogate</b>								
		LCSD	LCSD					
		% Recovery	Qualifier	Limits				
Tetrachloro-m-xylene	80			60 - 150				
DCB Decachlorobiphenyl	54			40 - 135				

**Lab Sample ID: MB 580-94910/1-A**

**Matrix: Wipe**

**Analysis Batch: 94959**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
PCB-1221	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
PCB-1232	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
PCB-1242	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
PCB-1248	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
PCB-1254	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
PCB-1260	ND		0.10		ug/Wipe		09/08/11 14:05	09/09/11 22:13	1
<b>Surrogate</b>									
	MB	MB					Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	116		60 - 120				09/08/11 14:05	09/09/11 22:13	1
DCB Decachlorobiphenyl	109		60 - 120				09/08/11 14:05	09/09/11 22:13	1

**Lab Sample ID: LCS 580-94910/2-A**

**Matrix: Wipe**

**Analysis Batch: 94959**

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec.	
		Result	Qualifier			% Rec	Limits
PCB-1016	1.00	1.04		ug/Wipe	104	60 - 120	
PCB-1260	1.00	1.02		ug/Wipe	102	60 - 120	
<b>Surrogate</b>							
		LCS	LCS				
		% Recovery	Qualifier	Limits			
Tetrachloro-m-xylene	119			60 - 120			
DCB Decachlorobiphenyl	112			60 - 120			

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCSD 580-94910/3-A**

**Matrix: Wipe**

**Analysis Batch: 94959**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 94910**

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec	% Rec.	RPD	RPD Limit
		Result	Qualifier				ug/Wipe		
PCB-1016	1.00	1.08				108	60 - 120	4	10
PCB-1260	1.00	1.14	*	ug/Wipe		114	60 - 120	11	10
<b>Surrogate</b>									
Tetrachloro-m-xylene	119			60 - 120					
DCB Decachlorobiphenyl	107			60 - 120					

**Lab Sample ID: MB 580-95845/1-A**

**Matrix: Water**

**Analysis Batch: 95866**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95845**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier				ug/L	ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1016	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1221	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1232	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1242	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1248	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1254	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
PCB-1260	ND		ND		0.50		ug/L		09/21/11 15:02	09/22/11 11:39	1
<b>Surrogate</b>											
Tetrachloro-m-xylene	73				60 - 150				09/21/11 15:02	09/22/11 11:39	1
DCB Decachlorobiphenyl	67				40 - 135				09/21/11 15:02	09/22/11 11:39	1

**Lab Sample ID: LCS 580-95845/2-A**

**Matrix: Water**

**Analysis Batch: 95866**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95845**

Analyte	MB	MB	Spike Added	LCS	LCS	Unit	D	% Rec	% Rec.	
	Result	Qualifier		Result	Qualifier				ug/L	ug/L
PCB-1016	ND		1.00	0.728		ug/L		73	25 - 145	
PCB-1260	ND		1.00	0.814		ug/L		81	30 - 145	
<b>Surrogate</b>										
Tetrachloro-m-xylene	68			60 - 150						
DCB Decachlorobiphenyl	63			40 - 135						

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-94654/1-A**

**Matrix: Water**

**Analysis Batch: 95214**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94654**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier				ug/L	ug/L		09/06/11 13:42	09/13/11 10:34	1
#2 Diesel (C10-C24)	ND		ND		0.13		mg/L		09/06/11 13:42	09/13/11 10:34	1
Motor Oil (>C24-C36)	ND		ND		0.25		mg/L		09/06/11 13:42	09/13/11 10:34	1
<b>Surrogate</b>											
o-Terphenyl	97				50 - 150				09/06/11 13:42	09/13/11 10:34	1

# QC Sample Results

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-28309-1

Project/Site: Sno Pac

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCS 580-94654/2-A**

**Matrix: Water**

**Analysis Batch: 95214**

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec	% Rec.
		Result	Qualifier				Limits
#2 Diesel (C10-C24)	5.00	4.89		mg/L	98	98	70 - 140
Motor Oil (>C24-C36)	5.00	5.17		mg/L	103	103	66 - 125
<i>Surrogate</i>							
<i>o-Terphenyl</i>	84			50 - 150			

**Lab Sample ID: LCSD 580-94654/3-A**

**Matrix: Water**

**Analysis Batch: 95214**

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec	% Rec.	RPD
		Result	Qualifier				RPD	Limit
#2 Diesel (C10-C24)	5.00	5.16		mg/L	103	103	70 - 140	5
Motor Oil (>C24-C36)	5.00	5.45		mg/L	109	109	66 - 125	5
<i>Surrogate</i>				50 - 150				
<i>o-Terphenyl</i>	90							

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 580-94861/20-A**

**Matrix: Water**

**Analysis Batch: 95010**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.060		mg/L		09/08/11 09:52	09/08/11 19:35	1
Cadmium	ND		0.010		mg/L		09/08/11 09:52	09/08/11 19:35	1
Chromium	ND		0.025		mg/L		09/08/11 09:52	09/08/11 19:35	1
Copper	ND		0.020		mg/L		09/08/11 09:52	09/08/11 19:35	1
Lead	ND		0.030		mg/L		09/08/11 09:52	09/08/11 19:35	1
Silver	ND		0.020		mg/L		09/08/11 09:52	09/08/11 19:35	1
Zinc	ND		0.040		mg/L		09/08/11 09:52	09/08/11 19:35	1

**Lab Sample ID: LCS 580-94861/21-A**

**Matrix: Water**

**Analysis Batch: 95010**

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec	% Rec.
		Result	Qualifier				Limits
Arsenic	4.00	3.91		mg/L	98	98	80 - 120
Cadmium	0.100	0.0954		mg/L	95	95	80 - 120
Chromium	0.400	0.390		mg/L	97	97	80 - 120
Copper	0.500	0.482		mg/L	96	96	80 - 120
Lead	1.00	0.956		mg/L	96	96	80 - 120
Silver	0.600	0.575		mg/L	96	96	80 - 120
Zinc	1.00	0.960		mg/L	96	96	80 - 120

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 580-94861/22-A**

**Matrix: Water**

**Analysis Batch: 95010**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total Recoverable**

**Prep Batch: 94861**

Analyte	Spike Added	LCSD		Unit	D	% Rec	Limits	RPD	RPD Limit
		Result	Qualifier						
Arsenic	4.00	3.91		mg/L	98	80 - 120	0	20	
Cadmium	0.100	0.0988		mg/L	99	80 - 120	4	20	
Chromium	0.400	0.387		mg/L	97	80 - 120	1	20	
Copper	0.500	0.483		mg/L	97	80 - 120	0	20	
Lead	1.00	0.954		mg/L	95	80 - 120	0	20	
Silver	0.600	0.586		mg/L	98	80 - 120	2	20	
Zinc	1.00	0.965		mg/L	97	80 - 120	1	20	

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 580-94751/16-B**

**Matrix: Water**

**Analysis Batch: 95038**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94983**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.000020		mg/L		09/09/11 09:44	09/09/11 12:54	1

**Lab Sample ID: LCS 580-94983/24-A**

**Matrix: Water**

**Analysis Batch: 95038**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94983**

Analyte	Spike		Result	LCS	LCS Qualifier	Unit	D	% Rec	Limits
	Added	Result							
Mercury	0.00200	0.00217		mg/L		109	80 - 120		

**Lab Sample ID: LCSD 580-94983/25-A**

**Matrix: Water**

**Analysis Batch: 95038**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 94983**

Analyte	Spike		Result	LCSD	LCSD Qualifier	Unit	D	% Rec	Limits
	Added	Result							
Mercury	0.00200	0.00209		mg/L	104	80 - 120	4	20	

**Lab Sample ID: 580-28309-5 MS**

**Matrix: Water**

**Analysis Batch: 95038**

**Client Sample ID: 082611-FB6-GW**

**Prep Type: Total/NA**

**Prep Batch: 94983**

Analyte	Sample		Spike	MS		Unit	D	% Rec	Limits
	Result	Qualifier		Added	Result				
Mercury	ND		0.00200	0.00218		mg/L	109	80 - 120	

**Lab Sample ID: 580-28309-5 MSD**

**Matrix: Water**

**Analysis Batch: 95038**

**Client Sample ID: 082611-FB6-GW**

**Prep Type: Total/NA**

**Prep Batch: 94983**

Analyte	Sample		Spike	MSD		Unit	D	% Rec	Limits	
	Result	Qualifier		Added	Result					
Mercury	ND		0.00200	0.00208		mg/L	104	80 - 120	5	20

**Lab Sample ID: 580-28309-5 DU**

**Matrix: Water**

**Analysis Batch: 95038**

**Client Sample ID: 082611-FB6-GW**

**Prep Type: Total/NA**

**Prep Batch: 94983**

Analyte	Sample		Spike	DU		Unit	D	RPD	RPD Limit
	Result	Qualifier		Added	Result				
Mercury	ND		0.00200	ND		mg/L		NC	20

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID:** MB 580-95767/18-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury			ND		0.017		mg/Kg		09/21/11 07:45	09/21/11 10:47	1

**Lab Sample ID:** LCS 580-95767/19-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec.	Limits	RPD
	Added									
Mercury				0.167		0.154	mg/Kg	93	80 - 120	

**Lab Sample ID:** LCSD 580-95767/20-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	% Rec.	Limits	RPD
	Added									
Mercury				0.167		0.155	mg/Kg	93	80 - 120	1

**Lab Sample ID:** LCSSRM 580-95767/21-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	Spike	LCSSRM	LCSSRM	Result	Qualifier	Unit	D	% Rec.	Limits	RPD
	Added									
Mercury				16.3		17.1	mg/Kg	105	51.1 - 148.	9

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: TB-4-082611**

**Lab Sample ID: 580-28309-1**

Matrix: Water

Date Collected: 08/26/11 10:48

Date Received: 08/26/11 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	95194	09/09/11 01:02	MAT	TAL SEA

**Client Sample ID: 082611-FB6-1.1**

**Lab Sample ID: 580-28309-3**

Matrix: Solid

Date Collected: 08/26/11 08:00

Date Received: 08/26/11 16:20

Percent Solids: 72.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:01	FCW	TAL SEA

**Client Sample ID: 082611-FB6-GW**

**Lab Sample ID: 580-28309-5**

Matrix: Water

Date Collected: 08/26/11 09:00

Date Received: 08/26/11 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			94291	09/01/11 10:36	SP	TAL SEA
Total/NA	Analysis	8270C SIM		1	95043	09/09/11 19:43	AP	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 12:59	ES	TAL SEA
Total/NA	Prep	3510C			95845	09/21/11 15:02	RS	TAL SEA
Total/NA	Analysis	8082		1	95866	09/22/11 12:14	EK	TAL SEA
Total Recoverable	Prep	3005A			94861	09/08/11 09:52	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	95010	09/08/11 21:54	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 12:59	FCW	TAL SEA

**Client Sample ID: 082611-FB8-GW**

**Lab Sample ID: 580-28309-8**

Matrix: Water

Date Collected: 08/26/11 10:30

Date Received: 08/26/11 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			94291	09/01/11 10:36	SP	TAL SEA
Total/NA	Analysis	8270C SIM		1	95043	09/09/11 20:03	AP	TAL SEA
Total/NA	Analysis	8021B		1	94689	09/07/11 10:13	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx	RA	1	94921	09/08/11 22:58	JMB	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 13:24	ES	TAL SEA
Total Recoverable	Prep	3005A			94861	09/08/11 09:52	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	95010	09/08/11 22:01	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:05	FCW	TAL SEA

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

**Client Sample ID: 082611-FB7-GW**

Date Collected: 08/26/11 12:00  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-11**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			94291	09/01/11 10:36	SP	TAL SEA
Total/NA	Analysis	8270C SIM		1	95043	09/09/11 20:23	AP	TAL SEA
Total/NA	Analysis	8021B		1	94689	09/07/11 10:39	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx	RA	1	94921	09/08/11 23:20	JMB	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 13:48	ES	TAL SEA
Total Recoverable	Prep	3005A			94861	09/08/11 09:52	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	95010	09/08/11 22:08	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:07	FCW	TAL SEA

**Client Sample ID: 082611-FB9-GW**

Date Collected: 08/26/11 14:00  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-14**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	95194	09/09/11 01:28	MAT	TAL SEA
Total/NA	Prep	3520C			94291	09/01/11 10:36	SP	TAL SEA
Total/NA	Analysis	8270C SIM		1	95043	09/09/11 20:43	AP	TAL SEA
Total/NA	Analysis	NWTPH-Gx	RA	1	94921	09/08/11 23:43	JMB	TAL SEA
Total/NA	Prep	3510C			94196	08/31/11 13:19	RS	TAL SEA
Total/NA	Analysis	8082		1	94277	09/01/11 15:12	BT	TAL SEA
Total/NA	Prep	3520C			94654	09/06/11 13:43	RS	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95214	09/13/11 14:12	ES	TAL SEA
Total Recoverable	Prep	3005A			94861	09/08/11 09:52	PAB	TAL SEA
Total Recoverable	Analysis	6010B		1	95010	09/08/11 22:15	SP	TAL SEA
Total/NA	Prep	7470A			94983	09/09/11 09:44	ZF	TAL SEA
Total/NA	Analysis	7470A		1	95038	09/09/11 13:09	FCW	TAL SEA

**Client Sample ID: 082611-Wipe**

Date Collected: 08/26/11 14:30  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-15**

Matrix: Wipe

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3580A			94910	09/08/11 14:05	BT	TAL SEA
Total/NA	Analysis	8082		1	94959	09/09/11 22:55	BT	TAL SEA

**Laboratory References:**

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

## Certification Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Sample Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-28309-1	TB-4-082611	Water	08/26/11 10:48	08/26/11 16:20
580-28309-3	082611-FB6-1.1	Solid	08/26/11 08:00	08/26/11 16:20
580-28309-5	082611-FB6-GW	Water	08/26/11 09:00	08/26/11 16:20
580-28309-8	082611-FB8-GW	Water	08/26/11 10:30	08/26/11 16:20
580-28309-11	082611-FB7-GW	Water	08/26/11 12:00	08/26/11 16:20
580-28309-14	082611-FB9-GW	Water	08/26/11 14:00	08/26/11 16:20
580-28309-15	082611-Wipe	Wipe	08/26/11 14:30	08/26/11 16:20

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244  
 11922 E. First Ave, Spokane, WA 99206-5302  
 9405 SW Nimbus Ave, Beaverton, OR 97008-7145  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

425-420-9200 FAX 420-9210  
 509-924-9200 FAX 924-9290  
 503-906-9200 FAX 906-9210  
 907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #: 28309

CLIENT: <u>farallon Consulting LLC</u>				INVOICE TO:										TURNAROUND REQUEST										
REPORT TO: <u>Don Lance</u> ADDRESS: <u>175 5th NW Suite 100</u> PHONE: <u>425-295-0850</u>				P.O. NUMBER:										in Business Days *										
PROJECT NAME: <u>Sno Pac</u> PROJECT NUMBER: <u>879 009</u> SAMPLED BY: <u>Jon, Anna</u>				PRESERVATIVE										Organic & Inorganic Analyses										
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		Gx/Bx	Dx	DAT/S	ASCDERG <sup>25</sup>	Hg Pb Ag <sup>25</sup>	VOC <sup>60</sup>	PCB							10	7	5	4	3	2	1	<1
1 TB-4-082611		3/26/11 1048						X										STD.	Petroleum Hydrocarbon Analyses					
2 TB-5-082611		1049						X										5	4	3	2	1	<1	
3 082611-FB6-1.1		800																STD.						
4 082611-FB6-11.0		820																OTHER	Specify:					
5 082611-FB6-GW		900		X	X	X												* Turnaround Requests less than standard may incur Rush Charges.						
6 082611-FB8-7.4		1000																MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS		TA WO ID		
7 082611-FB8-11.6		1005																water	1			-1		
8 082611-FB8-GW		1030		X	X	X	X											sand	1			-2		
9 082611-FB7-10.5		1115																5	2			-3		
10 082611-FB7-11.8		1120																5	3			-4		
RELEASED BY: <u>Jon Peterson</u> PRINT NAME: <u>J. Peterson</u> FIRM: <u>farallon</u>		DATE: <u>2009-03-26</u>		TIME: <u>10:55:44</u>		RECEIVED BY: <u>Larry Gamble</u>		PRINT NAME: <u>Larry Gamble</u>		FIRM: <u>TASIA</u>		DATE: <u>3/26/11</u>												
RELEASED BY: <u>J. Peterson</u> PRINT NAME: <u>J. Peterson</u> FIRM: <u>farallon</u>		DATE: <u>2009-03-26</u>		TIME: <u>10:55:44</u>		RECEIVED BY: <u>Atty Grabbe</u>		PRINT NAME: <u>Atty Grabbe</u>		FIRM: <u>TASIA</u>		TIME: <u>10:55:44</u>												
ADDITIONAL REMARKS: <u>Hold soils for Don</u>												TEMP:		PAGE OF		DATE: <u>3/26/11</u>								

TAL-1000(0108)

Client Farrallan Consulting LLC		Client Contact Don Lance		Date	Chain of Custody Number 7911							
Address 975 5th NW Suite 100		Telephone Number (Area Code)/Fax Number 425 245 0800		Lab Number 28309	Page _____ of _____							
City Issaquah	State WA	Zip Code 98027	Sampler Jen 206 551- 7444	Lab Contact	Analysis (Attach list if more space is needed)							
Project Name and Location (State)		Billing Contact										
Contract/Purchase Order/Quote No.			Matrix	Containers & Preservatives	Special Instructions/ Conditions of Receipt							
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)		Date	Time	Air Aqueous Sed. Soil Unpres.	H2SO4 HNO3 HCl NaOH ZnAc/ NaOH Hg As/Cr/Cu PCB							
082611-FB7-GW		8-26-11	1200	X	X X X X	-11						
082611-FB9-5-2			1315		X	-12						
082611-FB9-12.0			1325	X	X	-13						
082611-FB9-GW			1400	X	X X X X X X	-14						
082611-wipe			1430		1 X	-15						
Cooler		Possible Hazard Identification				Sample Disposal	Disposal By Lab	(A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Cooler Temp:				<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Archive For _____ Months
Turn Around Time Required (business days)										QC Requirements (Specify)		
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 5 Days <input type="checkbox"/> 10 Days <input type="checkbox"/> 15 Days <input checked="" type="checkbox"/> Other <u>Standard</u>												
1. Relinquished By Sign/Print <u>Don Peterson</u>		Date 8/24/11	Time 10:20	1. Received By Sign/Print <u>Cathy Gaskell</u>		Date 8/24/11	Time 10:20					
2. Relinquished By Sign/Print		Date	Time	2. Received By Sign/Print		Date	Time					
3. Relinquished By Sign/Print		Date	Time	3. Received By Sign/Print		Date	Time					

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*Comments*

Hold for Don - 501E

**DISTRIBUTION:** WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-28309-1

**Login Number:** 28309

**List Source:** TestAmerica Seattle

**List Number:** 1

**Creator:** Gamble, Cathy

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

1  
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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-28308-2  
Client Project/Site: Sno Pac  
Revision: 1

For:  
Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Donald Lance

Kristine D. Allen

Authorized for release by:  
09/26/2011 06:08:46 PM

Kristine Allen  
Project Manager I  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Case Narrative

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

### Job ID: 580-28308-2

Laboratory: TestAmerica Seattle

#### Narrative

##### Receipt

All samples were received in good condition within temperature requirements.

Samples were logged in following the Chain of Custody (COC) submitted with the samples. Client emailed revised COCs to project manager later that day. The project manager did not realize the emailed COCs were different from the COCs that accompanied the samples. The error was not discovered until the samples had expired. The samples were then logged in following the revised COCs and tested out of hold.

##### GC/MS VOA - Method NWTPH-Gx

Recovery of the surrogate 4-Bromofluorobenzene in sample 082511-FB2-5.2 (580-28308-7) exceeded quality control limits due to matrix interference. The anomaly was flagged "X."

No other analytical or quality issues were noted.

##### GC Semi VOA - Method 8082

Recovery of the surrogate DCB Decachlorobiphenyl in samples 580-28308-1MS, 082511-FB1-9.5 (580-28308-1), 082511-FB4-8.7 (580-28308-4), 082511-FB2-16.0 (580-28308-9), 082511-FB3-14.9 (580-28308-12), and 082511-FB5-18.0 (580-28308-17) exceeded quality control limits due to matrix interference. This anomaly was flagged "X."

Recovery of the surrogate Tetrachloro-m-xylene exceeded quality control limits in samples 082511-FB2-16.0 (580-28308-9), 082511-FB3-14.9 (580-28308-12) and 082511-FB5-18.0 (580-28308-17) exceeded quality control limits due to matrix interference. This anomaly was flagged "X."

The following samples required a sulfuric acid clean-up to reduce matrix interferences (Sulfuric acid Lot #709195): 580-28308-1MS, 580-28308-1 MSD, 082511-FB1-9.5 (580-28308-1), 082511-FB4-8.7 (580-28308-4), 082511-FB2-5.2 (580-28308-7), 082511-FB2-16.0 (580-28308-9), and 082511-FB3-14.9 (580-28308-12).

##### GC Semi VOA -Method NWTPH-Dx

The results in the C10-C25 (DRO) and C25-C36 (RRO) ranges in sample 082511-FB2-5.2 (580-28308-7) are due primarily to a mixture of weathered diesel, motor oil, a grouping of individual hydrocarbon peaks that do not resemble a typical fuel pattern, and/or possible biogenic interference.

The results in the C25-C36 (RRO) range in sample 082511-FB3-14.9 (580-28308-12) are due primarily to a mixture of motor oil, a grouping of individual hydrocarbon peaks that do not resemble a typical fuel pattern, and/or possible biogenic interference.

No other analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### General Chemistry

No analytical or quality issues were noted.

#### Subcontract Work

Method 8260 B VOCs Standard List: This method was subcontracted to TestAmerica Portland. The subcontract certification is different from those listed on the TestAmerica cover page of this final report.

## Definitions/Glossary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

### Qualifiers

#### GCMS Volatiles

Qualifier	Qualifier Description
H3	Sample was received and analyzed past holding time.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

#### GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
I	Indicates the presence of an interference, recovery is not calculated.
X	Surrogate is outside control limits

#### GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
X	Surrogate is outside control limits

#### Metals

Qualifier	Qualifier Description
L	A negative instrument reading had an absolute value greater than the reporting limit

### Glossary

#### Abbreviation

**These commonly used abbreviations may or may not be present in this report.**

✓	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB1-9.5**

Date Collected: 08/25/11 10:35  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-1**

Matrix: Solid  
Percent Solids: 79.0

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
2-Methylnaphthalene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
1-Methylnaphthalene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Acenaphthylene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Acenaphthene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Fluorene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Phenanthrene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Anthracene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Fluoranthene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Pyrene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Benzo[a]anthracene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Chrysene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Benzo[b]fluoranthene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Benzo[k]fluoranthene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Benzo[a]pyrene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Indeno[1,2,3-cd]pyrene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Dibenz(a,h)anthracene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
Benzo[g,h,i]perylene	ND	H	6.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:00	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	84		42 - 151				09/21/11 08:01	09/21/11 12:00	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.051		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
Toluene	ND	H	0.13		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
Ethylbenzene	ND	H	0.13		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
m-Xylene & p-Xylene	ND	H	0.25		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
o-Xylene	ND	H	0.25		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
Xylenes, Total	ND	H	0.25		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		75 - 135				09/21/11 15:12	09/22/11 01:46	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	10		mg/Kg	⊗	09/21/11 15:12	09/22/11 01:46	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	104		50 - 150				09/21/11 15:12	09/22/11 01:46	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1
PCB-1221	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1
PCB-1232	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1
PCB-1242	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1
PCB-1248	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1
PCB-1254	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1
PCB-1260	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 16:25	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB1-9.5**  
Date Collected: 08/25/11 10:35  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-1**  
Matrix: Solid  
Percent Solids: 79.0

Surrogate	% Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		45 - 155		09/20/11 15:18	09/21/11 16:25	1
DCB Decachlorobiphenyl	44	X	60 - 125		09/20/11 15:18	09/21/11 16:25	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	31		mg/Kg	⊗	09/21/11 09:06	09/21/11 14:54	1
Motor Oil (>C24-C36)	ND	H	63		mg/Kg	⊗	09/21/11 09:06	09/21/11 14:54	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	80		50 - 150				09/21/11 09:06	09/21/11 14:54	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:57	1
Lead	ND		1.7		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:57	1
Cadmium	ND		0.56		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:57	1
Chromium	7.3		1.5		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:57	1
Copper	8.0		1.1		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:57	1
Silver	ND		1.1		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:57	1
Zinc	23		2.2		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:29	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:14	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			09/20/11 15:39	1
Percent Moisture	21		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB4-8.7**

Date Collected: 08/25/11 11:55  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-4**

Matrix: Solid

Percent Solids: 81.7

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
2-Methylnaphthalene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
1-Methylnaphthalene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Acenaphthylene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Acenaphthene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Fluorene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Phenanthrene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Anthracene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Fluoranthene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Pyrene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Benzo[a]anthracene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Chrysene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Benzo[b]fluoranthene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Benzo[k]fluoranthene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Benzo[a]pyrene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Indeno[1,2,3-cd]pyrene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Dibenz(a,h)anthracene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
Benzo[g,h,i]perylene	ND	H	6.0		ug/Kg	⊗	09/21/11 08:01	09/21/11 12:59	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	67		42 - 151				09/21/11 08:01	09/21/11 12:59	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
PCB-1221	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
PCB-1232	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
PCB-1242	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
PCB-1248	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
PCB-1254	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
PCB-1260	ND	H	0.012		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:07	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	80		45 - 155				09/20/11 15:18	09/21/11 17:07	1
DCB Decachlorobiphenyl	43	X	60 - 125				09/20/11 15:18	09/21/11 17:07	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	30		mg/Kg	⊗	09/21/11 09:06	09/21/11 15:54	1
Motor Oil (>C24-C36)	ND	H	60		mg/Kg	⊗	09/21/11 09:06	09/21/11 15:54	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	81		50 - 150				09/21/11 09:06	09/21/11 15:54	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.5		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:03	1
Lead	ND		1.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:03	1
Cadmium	ND		0.59		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:03	1
Chromium	7.7		1.5		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:03	1
Copper	11		1.2		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:03	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB4-8.7**

**Lab Sample ID: 580-28308-4**

Date Collected: 08/25/11 11:55  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 81.7

**Method: 6010B - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.2		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:03	1
Zinc	21		2.3		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:33	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND			0.018	mg/Kg	⊗	09/21/11 07:45	09/21/11 11:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10		%			09/20/11 15:39	1
Percent Moisture	18		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-5.2**

**Lab Sample ID: 580-28308-7**

Date Collected: 08/25/11 13:55  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 91.5

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	850	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
2-Methylnaphthalene	1100	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
1-Methylnaphthalene	940	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Acenaphthylene	21	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Acenaphthene	27	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Fluorene	31	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Phenanthrene	480	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Anthracene	100	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Fluoranthene	310	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Pyrene	290	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Benzo[a]anthracene	140	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Chrysene	140	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Benzo[b]fluoranthene	130	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Benzo[k]fluoranthene	34	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Benzo[a]pyrene	120	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Indeno[1,2,3-cd]pyrene	64	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Dibenz(a,h)anthracene	26	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
Benzo[g,h,i]perylene	100	H	5.3		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:18	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	76						09/21/11 08:01	09/21/11 13:18	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.7	H	0.058		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
Toluene	11	H	0.15		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
Ethylbenzene	2.0	H	0.15		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
m-Xylene & p-Xylene	9.5	H	0.29		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
o-Xylene	6.7	H	0.29		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
Xylenes, Total	16	H	0.29		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	103						09/21/11 15:12	09/22/11 02:11	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	420	H	12		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:11	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	205	I X					09/21/11 15:12	09/22/11 02:11	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1
PCB-1221	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1
PCB-1232	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1
PCB-1242	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1
PCB-1248	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1
PCB-1254	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1
PCB-1260	ND	H	0.011		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:22	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-5.2**

**Lab Sample ID: 580-28308-7**

Date Collected: 08/25/11 13:55  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 91.5

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		45 - 155	09/20/11 15:18	09/21/11 17:22	1
DCB Decachlorobiphenyl	62		60 - 125	09/20/11 15:18	09/21/11 17:22	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	200	H	26		mg/Kg	⊗	09/21/11 09:06	09/21/11 16:20	1
Motor Oil (>C24-C36)	430	H	52		mg/Kg	⊗	09/21/11 09:06	09/21/11 16:20	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150				09/21/11 09:06	09/21/11 16:20	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		2.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:10	1
Lead	50		1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:10	1
Cadmium	ND		0.47		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:10	1
Chromium	9.3		1.2		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:10	1
Copper	270		0.93		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:10	1
Silver	ND		0.93		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:10	1
Zinc	120		1.9		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:38	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.095		0.016		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:17	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91		0.10		%			09/20/11 15:39	1
Percent Moisture	8.5		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-16.0**

**Lab Sample ID: 580-28308-9**

Matrix: Solid

Date Collected: 08/25/11 14:20  
Date Received: 08/26/11 15:00

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	H3	6050		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Benzene	ND	H3	48.4		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Bromobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Bromochloromethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Bromodichloromethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Bromoform	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Bromomethane	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
2-Butanone (MEK)	ND	H3	2420		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
n-Butylbenzene	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
sec-Butylbenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
tert-Butylbenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Carbon disulfide	ND	H3	2420		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Carbon tetrachloride	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Chlorobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Chloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Chloroform	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Chloromethane	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
2-Chlorotoluene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
4-Chlorotoluene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2-Dibromo-3-chloropropane	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Dibromochloromethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2-Dibromoethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Dibromomethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2-Dichlorobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,3-Dichlorobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,4-Dichlorobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Dichlorodifluoromethane	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,1-Dichloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2-Dichloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,1-Dichloroethene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
cis-1,2-Dichloroethene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
trans-1,2-Dichloroethene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2-Dichloropropane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,3-Dichloropropane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
2,2-Dichloropropane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,1-Dichloropropene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
cis-1,3-Dichloropropene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
trans-1,3-Dichloropropene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Ethylbenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Hexachlorobutadiene	ND	H3	969		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
2-Hexanone	ND	H3	2420		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Isopropylbenzene	ND	H3	484		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
p-Isopropyltoluene	ND	H3	484		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
4-Methyl-2-pentanone	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Methyl tert-butyl ether	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Methylene chloride	ND	H3	1210		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Naphthalene	ND	H3	484		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
n-Propylbenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Styrene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,1,1,2-Tetrachloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-16.0**  
Date Collected: 08/25/11 14:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-9**  
Matrix: Solid

Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Tetrachloroethene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Toluene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2,3-Trichlorobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2,4-Trichlorobenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,1,1-Trichloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,1,2-Trichloroethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Trichloroethene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Trichlorofluoromethane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2,3-Trichloropropane	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,2,4-Trimethylbenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
1,3,5-Trimethylbenzene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Vinyl chloride	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
o-Xylene	ND	H3	242		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
m,p-Xylene	ND	H3	484		ug/kg wet		08/25/11 14:20	09/26/11 15:01	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	94.8	H3	70 - 135				08/25/11 14:20	09/26/11 15:01	100
1,2-DCA-d4	98.8	H3	60 - 145				08/25/11 14:20	09/26/11 15:01	100
Toluene-d8	96.4	H3	70 - 140				08/25/11 14:20	09/26/11 15:01	100
4-BFB	102	H3	70 - 140				08/25/11 14:20	09/26/11 15:01	100

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
2-Methylnaphthalene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
1-Methylnaphthalene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Acenaphthylene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Acenaphthene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Fluorene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Phenanthrene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Anthracene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Fluoranthene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Pyrene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Benzo[a]anthracene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Chrysene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Benzo[b]fluoranthene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Benzo[k]fluoranthene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Benzo[a]pyrene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Indeno[1,2,3-cd]pyrene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Dibenz(a,h)anthracene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Benzo[g,h,i]perylene	ND	H	9.8		ug/Kg	☀	09/21/11 08:01	09/21/11 13:38	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	67		42 - 151				09/21/11 08:01	09/21/11 13:38	1

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.10		mg/Kg	☀	09/21/11 15:12	09/22/11 02:36	1
Toluene	ND	H	0.26		mg/Kg	☀	09/21/11 15:12	09/22/11 02:36	1
Ethylbenzene	ND	H	0.26		mg/Kg	☀	09/21/11 15:12	09/22/11 02:36	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-16.0**

**Lab Sample ID: 580-28308-9**

Date Collected: 08/25/11 14:20  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 49.7

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND	H	0.51		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:36	1
o-Xylene	ND	H	0.51		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:36	1
Xylenes, Total	ND	H	0.51		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:36	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	95		75 - 135				09/21/11 15:12	09/22/11 02:36	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	20		mg/Kg	⊗	09/21/11 15:12	09/22/11 02:36	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	101		50 - 150				09/21/11 15:12	09/22/11 02:36	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
PCB-1221	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
PCB-1232	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
PCB-1242	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
PCB-1248	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
PCB-1254	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
PCB-1260	ND	H	0.019		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:36	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	41	X	45 - 155				09/20/11 15:18	09/21/11 17:36	1
DCB Decachlorobiphenyl	14	X	60 - 125				09/20/11 15:18	09/21/11 17:36	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	48		mg/Kg	⊗	09/21/11 09:06	09/21/11 16:48	1
Motor Oil (>C24-C36)	ND	H	96		mg/Kg	⊗	09/21/11 09:06	09/21/11 16:48	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	84		50 - 150				09/21/11 09:06	09/21/11 16:48	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9		5.6		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:29	1
Lead	3.7		2.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:29	1
Cadmium	ND		0.93		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:29	1
Chromium	13		2.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:29	1
Copper	29		1.9		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:29	1
Silver	ND	L	1.9		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:29	1
Zinc	38		3.7		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:42	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.030		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:18	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	50		0.10		%		09/20/11 15:39		1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-16.0**  
Date Collected: 08/25/11 14:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-9**  
Matrix: Solid

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	50		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB3-14.9**

Date Collected: 08/25/11 16:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-12**

Matrix: Solid  
Percent Solids: 55.8

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
2-Methylnaphthalene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
1-Methylnaphthalene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Acenaphthylene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Acenaphthene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Fluorene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Phenanthrene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Anthracene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Fluoranthene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Pyrene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Benzo[a]anthracene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Chrysene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Benzo[b]fluoranthene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Benzo[k]fluoranthene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Benzo[a]pyrene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Indeno[1,2,3-cd]pyrene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Dibenz(a,h)anthracene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
Benzo[g,h,i]perylene	ND	H	8.9		ug/Kg	⊗	09/21/11 08:01	09/21/11 13:57	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	68		42 - 151				09/21/11 08:01	09/21/11 13:57	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.083		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
Toluene	ND	H	0.21		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
Ethylbenzene	ND	H	0.21		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
m-Xylene & p-Xylene	ND	H	0.42		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
o-Xylene	ND	H	0.42		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
Xylenes, Total	ND	H	0.42		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	95		75 - 135				09/21/11 15:12	09/22/11 03:01	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	17		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:01	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		50 - 150				09/21/11 15:12	09/22/11 03:01	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1
PCB-1221	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1
PCB-1232	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1
PCB-1242	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1
PCB-1248	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1
PCB-1254	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1
PCB-1260	ND	H	0.017		mg/Kg	⊗	09/20/11 15:18	09/21/11 17:50	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB3-14.9**

Date Collected: 08/25/11 16:20

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-12**

Matrix: Solid

Percent Solids: 55.8

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	28	X	45 - 155	09/20/11 15:18	09/21/11 17:50	1
DCB Decachlorobiphenyl	12	X	60 - 125	09/20/11 15:18	09/21/11 17:50	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	44		mg/Kg	⊗	09/21/11 09:06	09/21/11 17:18	1
Motor Oil (>C24-C36)	98	H	88		mg/Kg	⊗	09/21/11 09:06	09/21/11 17:18	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	82		50 - 150				09/21/11 09:06	09/21/11 17:18	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		4.9		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:35	1
Lead	3.8		2.5		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:35	1
Cadmium	ND		0.82		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:35	1
Chromium	15		2.1		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:35	1
Copper	32		1.6		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:35	1
Silver	ND	L	1.6		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:35	1
Zinc	37		3.3		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:46	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.026		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:20	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	56		0.10		%			09/20/11 15:39	1
Percent Moisture	44		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB5-6.2**

Date Collected: 08/25/11 18:20

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-15**

Matrix: Solid

Percent Solids: 75.5

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.5		3.9		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:42	1
Lead	73		2.0		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:42	1
Cadmium	1.1		0.65		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:42	1
Chromium	21		1.7		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:42	1
Copper	180		1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:42	1
Silver	ND	L	1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:42	1
Zinc	200		2.6		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:59	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.099		mg/Kg	⊗	09/21/11 07:45	09/21/11 13:55	5

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10		%			09/20/11 15:39	1
Percent Moisture	25		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB5-10.2**

Date Collected: 08/25/11 18:30

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-16**

Matrix: Solid

Percent Solids: 89.3

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.8		3.0		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:49	1
Lead	19		1.5		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:49	1
Cadmium	0.61		0.49		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:49	1
Chromium	20		1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:49	1
Copper	75		0.99		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:49	1
Silver	ND	L	0.99		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:49	1
Zinc	120		2.0		mg/Kg	⊗	09/20/11 14:44	09/22/11 16:04	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.099		0.016		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:23	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10		%			09/20/11 15:46	1
Percent Moisture	11		0.10		%			09/20/11 15:46	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB5-18.0**

**Lab Sample ID: 580-28308-17**

Matrix: Solid

Date Collected: 08/25/11 18:40  
Date Received: 08/26/11 15:00

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	H3	3830		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Benzene	ND	H3	30.6		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Bromobenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Bromochloromethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Bromodichloromethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Bromoform	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Bromomethane	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
2-Butanone (MEK)	ND	H3	1530		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
n-Butylbenzene	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
sec-Butylbenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
tert-Butylbenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Carbon disulfide	ND	H3	1530		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Carbon tetrachloride	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Chlorobenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Chloroethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Chloroform	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Chloromethane	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
2-Chlorotoluene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
4-Chlorotoluene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,2-Dibromo-3-chloropropane	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Dibromochloromethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,2-Dibromoethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Dibromomethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,2-Dichlorobenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,3-Dichlorobenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,4-Dichlorobenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Dichlorodifluoromethane	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,1-Dichloroethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,2-Dichloroethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,1-Dichloroethene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
cis-1,2-Dichloroethene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
trans-1,2-Dichloroethene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,2-Dichloropropane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,3-Dichloropropane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
2,2-Dichloropropane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,1-Dichloropropene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
cis-1,3-Dichloropropene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
trans-1,3-Dichloropropene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Ethylbenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Hexachlorobutadiene	ND	H3	613		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
2-Hexanone	ND	H3	1530		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Isopropylbenzene	ND	H3	306		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
p-Isopropyltoluene	ND	H3	306		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
4-Methyl-2-pentanone	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Methyl tert-butyl ether	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Methylene chloride	ND	H3	766		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
<b>Naphthalene</b>	<b>9110</b>	<b>H3</b>	306		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
n-Propylbenzene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
Styrene	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100
1,1,1,2-Tetrachloroethane	ND	H3	153		ug/kg wet	08/25/11 18:40	09/26/11 15:23		100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB5-18.0**  
Date Collected: 08/25/11 18:40  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-17**  
Matrix: Solid

Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
Tetrachloroethene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
Toluene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,2,3-Trichlorobenzene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,2,4-Trichlorobenzene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,1,1-Trichloroethane	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,1,2-Trichloroethane	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
Trichloroethene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
Trichlorofluoromethane	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,2,3-Trichloropropane	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,2,4-Trimethylbenzene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
1,3,5-Trimethylbenzene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
Vinyl chloride	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
o-Xylene	ND	H3	153		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
m,p-Xylene	ND	H3	306		ug/kg wet		08/25/11 18:40	09/26/11 15:23	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	96.8	H3	70 - 135				08/25/11 18:40	09/26/11 15:23	100
1,2-DCA-d4	99.3	H3	60 - 145				08/25/11 18:40	09/26/11 15:23	100
Toluene-d8	97.5	H3	70 - 140				08/25/11 18:40	09/26/11 15:23	100
4-BFB	104	H3	70 - 140				08/25/11 18:40	09/26/11 15:23	100

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1200	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
2-Methylnaphthalene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
1-Methylnaphthalene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Acenaphthylene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Acenaphthene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Fluorene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Phenanthrene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Anthracene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Fluoranthene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Pyrene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Benzo[a]anthracene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Chrysene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Benzo[b]fluoranthene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Benzo[k]fluoranthene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Benzo[a]pyrene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Indeno[1,2,3-cd]pyrene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Dibenz(a,h)anthracene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Benzo[g,h,i]perylene	ND	H	8.0		ug/Kg	☀	09/21/11 08:01	09/21/11 14:17	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	64		42 - 151				09/21/11 08:01	09/21/11 14:17	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.016		mg/Kg	☀	09/20/11 15:18	09/21/11 18:04	1
PCB-1221	ND	H	0.016		mg/Kg	☀	09/20/11 15:18	09/21/11 18:04	1
PCB-1232	ND	H	0.016		mg/Kg	☀	09/20/11 15:18	09/21/11 18:04	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB5-18.0**

Date Collected: 08/25/11 18:40

Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-17**

Matrix: Solid

Percent Solids: 62.4

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:04	1
PCB-1248	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:04	1
PCB-1254	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:04	1
PCB-1260	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:04	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	16	X	45 - 155				09/20/11 15:18	09/21/11 18:04	1
DCB Decachlorobiphenyl	12	X	60 - 125				09/20/11 15:18	09/21/11 18:04	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	39		mg/Kg	⊗	09/21/11 09:06	09/21/11 17:46	1
Motor Oil (>C24-C36)	ND	H	77		mg/Kg	⊗	09/21/11 09:06	09/21/11 17:46	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	82		50 - 150				09/21/11 09:06	09/21/11 17:46	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.4		4.1		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:55	1
Lead	4.0		2.0		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:55	1
Cadmium	ND		0.68		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:55	1
Chromium	13		1.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:55	1
Copper	21		1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:55	1
Silver	ND	L	1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 21:55	1
Zinc	39		2.7		mg/Kg	⊗	09/20/11 14:44	09/22/11 16:08	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.025		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	62		0.10		%			09/20/11 15:39	1
Percent Moisture	38		0.10		%			09/20/11 15:39	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B

Lab Sample ID: 11I0741-BLK1

Matrix: Soil

Analysis Batch: 11I0741

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 11I0741\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		2420		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Benzene	ND		19.3		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Bromobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Bromochloromethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Bromodichloromethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Bromoform	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Bromomethane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
2-Butanone (MEK)	ND		967		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
n-Butylbenzene	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
sec-Butylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
tert-Butylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Carbon disulfide	ND		967		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Carbon tetrachloride	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Chlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Chloroethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Chloroform	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Chloromethane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
2-Chlorotoluene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
4-Chlorotoluene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,2-Dibromo-3-chloropropane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Dibromochloromethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,2-Dibromoethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Dibromomethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,2-Dichlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,3-Dichlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,4-Dichlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Dichlorodifluoromethane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,1-Dichloroethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,2-Dichloroethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,1-Dichloroethene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
cis-1,2-Dichloroethene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
trans-1,2-Dichloroethene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,2-Dichloropropane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,3-Dichloropropane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
2,2-Dichloropropane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
1,1-Dichloropropene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
cis-1,3-Dichloropropene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
trans-1,3-Dichloropropene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Ethylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Hexachlorobutadiene	ND		387		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
2-Hexanone	ND		967		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Isopropylbenzene	ND		193		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
p-Isopropyltoluene	ND		193		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
4-Methyl-2-pentanone	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Methyl tert-butyl ether	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Methylene chloride	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Naphthalene	ND		193		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
n-Propylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100
Styrene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	100

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11I0741-BLK1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,1,2,2-Tetrachloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Tetrachloroethene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Toluene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,3-Trichlorobenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,4-Trichlorobenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,1,1-Trichloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,1,2-Trichloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Trichloroethene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Trichlorofluoromethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,3-Trichloropropane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,4-Trimethylbenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,3,5-Trimethylbenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Vinyl chloride			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
o-Xylene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
m,p-Xylene			ND		193		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100

**Blank**    **Blank**

Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
Dibromofluoromethane			99.3		70 - 135		09/26/11 09:45	09/26/11 11:48	100
1,2-DCA-d4			104		60 - 145		09/26/11 09:45	09/26/11 11:48	100
Toluene-d8			99.0		70 - 140		09/26/11 09:45	09/26/11 11:48	100
4-BFB			101		70 - 140		09/26/11 09:45	09/26/11 11:48	100

**Lab Sample ID: 11I0741-BS1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

Analyte	Spike	LCS		Unit	D	% Rec	Limits	% Rec.
		Added	Result	Qualifier				
Acetone		9880	9480	ug/kg wet		95.9	65 - 167	
Benzene		1980	1710	ug/kg wet		86.7	81.9 - 125	
Bromobenzene		1980	1700	ug/kg wet		86.0	80 - 120	
Bromochloromethane		1980	1930	ug/kg wet		97.6	80 - 120	
Bromodichloromethane		1980	1830	ug/kg wet		92.8	80 - 141	
Bromoform		1980	1500	ug/kg wet		75.7	75 - 151	
Bromomethane		1980	1520	ug/kg wet		76.7	65 - 130	
2-Butanone (MEK)		9880	10100	ug/kg wet		103	68 - 127	
n-Butylbenzene		1980	2110	ug/kg wet		107	90 - 146	
sec-Butylbenzene		1980	1850	ug/kg wet		93.4	80 - 133	
tert-Butylbenzene		1980	1830	ug/kg wet		92.3	80 - 130	
Carbon disulfide		3950	3500	ug/kg wet		88.6	67 - 140	
Carbon tetrachloride		1980	1990	ug/kg wet		101	71 - 128	
Chlorobenzene		1980	1860	ug/kg wet		93.9	79.2 - 125	
Chloroethane		1980	2000	ug/kg wet		101	75 - 125	
Chloroform		1980	1760	ug/kg wet		89.0	80 - 121	
Chloromethane		1980	1970	ug/kg wet		99.9	42 - 150	
2-Chlorotoluene		1980	1680	ug/kg wet		84.8	80 - 120	
4-Chlorotoluene		1980	1700	ug/kg wet		86.2	80 - 126	
1,2-Dibromo-3-chloropropane		1980	1810	ug/kg wet		91.8	61 - 128	
Dibromochloromethane		1980	1690	ug/kg wet		85.5	75 - 125	

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11I0741-BS1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

**% Rec.**

Analyte	Spike Added	LCS		Unit	D	% Rec	Limits
		Result	Qualifier				
1,2-Dibromoethane	1980	1960		ug/kg wet	99.2	80 - 124	
Dibromomethane	1980	1940		ug/kg wet	98.1	80 - 120	
1,2-Dichlorobenzene	1980	1850		ug/kg wet	93.6	80 - 120	
1,3-Dichlorobenzene	1980	1790		ug/kg wet	90.5	80 - 126	
1,4-Dichlorobenzene	1980	1670		ug/kg wet	84.5	77 - 121	
Dichlorodifluoromethane	1980	2240		ug/kg wet	113	75 - 120	
1,1-Dichloroethane	1980	1770		ug/kg wet	89.3	80 - 120	
1,2-Dichloroethane	1980	1940		ug/kg wet	98.0	80 - 120	
1,1-Dichloroethene	1980	1670		ug/kg wet	84.7	66.1 - 125	
cis-1,2-Dichloroethene	1980	1800		ug/kg wet	91.0	75 - 125	
trans-1,2-Dichloroethene	1980	1740		ug/kg wet	87.8	75 - 125	
1,2-Dichloropropane	1980	1850		ug/kg wet	93.7	82 - 125	
1,3-Dichloropropane	1980	1930		ug/kg wet	97.6	75 - 129	
2,2-Dichloropropane	1980	1890		ug/kg wet	95.5	72 - 132	
1,1-Dichloropropene	1980	1780		ug/kg wet	90.2	79 - 126	
cis-1,3-Dichloropropene	1980	1870		ug/kg wet	94.7	80 - 126	
trans-1,3-Dichloropropene	1980	1740		ug/kg wet	87.9	67 - 146	
Ethylbenzene	1980	1730		ug/kg wet	87.7	82 - 123	
Hexachlorobutadiene	1980	2520		ug/kg wet	128	80 - 152	
2-Hexanone	9880	10500		ug/kg wet	106	57 - 120	
Isopropylbenzene	1980	1720		ug/kg wet	87.1	82 - 128	
p-Isopropyltoluene	1980	1870		ug/kg wet	94.8	80 - 120	
4-Methyl-2-pentanone	9880	10100		ug/kg wet	102	52 - 120	
Methyl tert-butyl ether	1980	1990		ug/kg wet	100	75 - 125	
Methylene chloride	1980	1870		ug/kg wet	94.8	75 - 125	
Naphthalene	1980	2120		ug/kg wet	107	80 - 130	
n-Propylbenzene	1980	1780		ug/kg wet	90.0	80 - 120	
Styrene	1980	1860		ug/kg wet	93.9	80 - 123	
1,1,1,2-Tetrachloroethane	1980	1980		ug/kg wet	100	83 - 128	
1,1,2,2-Tetrachloroethane	1980	1810		ug/kg wet	91.6	72 - 135	
Tetrachloroethene	1980	1810		ug/kg wet	91.6	80 - 124	
Toluene	1980	1760		ug/kg wet	88.8	80 - 125	
1,2,3-Trichlorobenzene	1980	2090		ug/kg wet	106	78 - 143	
1,2,4-Trichlorobenzene	1980	2100		ug/kg wet	106	83 - 149	
1,1,1-Trichloroethane	1980	1820		ug/kg wet	91.9	80 - 124	
1,1,2-Trichloroethane	1980	1880		ug/kg wet	94.9	80 - 125	
Trichloroethene	1980	1720		ug/kg wet	86.8	76 - 125	
Trichlorofluoromethane	1980	2160		ug/kg wet	109	56 - 147	
1,2,3-Trichloropropane	1980	1760		ug/kg wet	89.1	67 - 126	
1,2,4-Trimethylbenzene	1980	1770		ug/kg wet	89.7	81 - 134	
1,3,5-Trimethylbenzene	1980	1880		ug/kg wet	95.1	82 - 136	
Vinyl chloride	1980	1120		ug/kg wet	56.9	10 - 140	
o-Xylene	1980	1700		ug/kg wet	86.0	80 - 126	
m,p-Xylene	3950	3560		ug/kg wet	90.0	80 - 120	

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
Dibromofluoromethane	107		70 - 135
1,2-DCA-d4	108		60 - 145
Toluene-d8	105		70 - 140

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Lab Sample ID: 11I0741-BS1

Matrix: Soil

Analysis Batch: 11I0741

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 11I0741\_P

Surrogate	LCS	LCS	
	% Recovery	Qualifier	Limits
4-BFB	99.7		70 - 140

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-95777/1-A

Matrix: Solid

Analysis Batch: 95804

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 95777

Analyte	MB	MB			Dil Fac
Result	Qualifier	RL	MDL	Unit	
Naphthalene	ND	5.0	ug/Kg		1
2-Methylnaphthalene	ND	5.0	ug/Kg		1
1-Methylnaphthalene	ND	5.0	ug/Kg		1
Acenaphthylene	ND	5.0	ug/Kg		1
Acenaphthene	ND	5.0	ug/Kg		1
Fluorene	ND	5.0	ug/Kg		1
Phenanthrene	ND	5.0	ug/Kg		1
Anthracene	ND	5.0	ug/Kg		1
Fluoranthene	ND	5.0	ug/Kg		1
Pyrene	ND	5.0	ug/Kg		1
Benzo[a]anthracene	ND	5.0	ug/Kg		1
Chrysene	ND	5.0	ug/Kg		1
Benzo[b]fluoranthene	ND	5.0	ug/Kg		1
Benzo[k]fluoranthene	ND	5.0	ug/Kg		1
Benzo[a]pyrene	ND	5.0	ug/Kg		1
Indeno[1,2,3-cd]pyrene	ND	5.0	ug/Kg		1
Dibenz(a,h)anthracene	ND	5.0	ug/Kg		1
Benzo[g,h,i]perylene	ND	5.0	ug/Kg		1
Surrogate	MB	MB			
Terphenyl-d14	% Recovery	Qualifier	Limits	Prepared	Analyzed
	83		42 - 151	09/21/11 08:01	09/21/11 11:21
					Dil Fac
					1

Lab Sample ID: LCS 580-95777/2-A

Matrix: Solid

Analysis Batch: 95804

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 95777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	Limits	% Rec.
Naphthalene	1000	937		ug/Kg	94	64 - 129		
2-Methylnaphthalene	1000	908		ug/Kg	91	65 - 125		
1-Methylnaphthalene	1000	1030		ug/Kg	103	48 - 148		
Acenaphthylene	999	923		ug/Kg	92	69 - 129		
Acenaphthene	1000	901		ug/Kg	90	65 - 130		
Fluorene	1000	843		ug/Kg	84	68 - 128		
Phenanthrene	1000	921		ug/Kg	92	65 - 125		
Anthracene	1000	924		ug/Kg	92	73 - 123		
Fluoranthene	1000	963		ug/Kg	96	61 - 121		
Pyrene	1000	984		ug/Kg	98	54 - 134		
Benzo[a]anthracene	1000	907		ug/Kg	91	64 - 124		
Chrysene	1000	847		ug/Kg	85	71 - 126		
Benzo[b]fluoranthene	1000	933		ug/Kg	93	66 - 136		

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCS 580-95777/2-A**

**Matrix: Solid**

**Analysis Batch: 95804**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95777**

Analyte		Spike	LCS	LCS	Unit	D	% Rec	Limits	
		Added	Result	Qualifier					
Benzo[k]fluoranthene		1000	769		ug/Kg		77	63 - 143	
Benzo[a]pyrene		1000	858		ug/Kg		86	68 - 128	
Indeno[1,2,3-cd]pyrene		1000	926		ug/Kg		93	59 - 139	
Dibenz(a,h)anthracene		999	919		ug/Kg		92	57 - 142	
Benzof[g,h,i]perylene		1000	944		ug/Kg		94	57 - 142	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>						
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
Terphenyl-d14		80		42 - 151					

**Lab Sample ID: 580-28308-1 MS**

**Matrix: Solid**

**Analysis Batch: 95804**

**Client Sample ID: 082511-FB1-9.5**

**Prep Type: Total/NA**

**Prep Batch: 95777**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	Limits	
	Result	Qualifier	Added	Result	Qualifier					
Naphthalene	ND	H	1260	1210	H	ug/Kg	⊗	96	64 - 129	
2-Methylnaphthalene	ND	H	1260	1160	H	ug/Kg	⊗	92	65 - 125	
1-Methylnaphthalene	ND	H	1260	1300	H	ug/Kg	⊗	103	48 - 148	
Acenaphthylene	ND	H	1260	1200	H	ug/Kg	⊗	96	69 - 129	
Acenaphthene	ND	H	1260	1150	H	ug/Kg	⊗	91	65 - 130	
Fluorene	ND	H	1260	1140	H	ug/Kg	⊗	90	68 - 128	
Phenanthrene	ND	H	1260	1190	H	ug/Kg	⊗	94	65 - 125	
Anthracene	ND	H	1260	1170	H	ug/Kg	⊗	93	73 - 123	
Fluoranthene	ND	H	1260	1210	H	ug/Kg	⊗	96	61 - 121	
Pyrene	ND	H	1260	1240	H	ug/Kg	⊗	99	54 - 134	
Benzo[a]anthracene	ND	H	1260	1160	H	ug/Kg	⊗	92	64 - 124	
Chrysene	ND	H	1260	1080	H	ug/Kg	⊗	85	71 - 126	
Benzo[b]fluoranthene	ND	H	1260	1200	H	ug/Kg	⊗	95	66 - 136	
Benzo[k]fluoranthene	ND	H	1260	1010	H	ug/Kg	⊗	80	63 - 143	
Benzo[a]pyrene	ND	H	1260	1120	H	ug/Kg	⊗	89	68 - 128	
Indeno[1,2,3-cd]pyrene	ND	H	1260	1180	H	ug/Kg	⊗	94	59 - 139	
Dibenz(a,h)anthracene	ND	H	1260	1180	H	ug/Kg	⊗	94	57 - 142	
Benzof[g,h,i]perylene	ND	H	1260	1180	H	ug/Kg	⊗	94	57 - 142	
<b>Surrogate</b>		<b>MS</b>	<b>MS</b>							
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
Terphenyl-d14		74		42 - 151						

**Lab Sample ID: 580-28308-1 MSD**

**Matrix: Solid**

**Analysis Batch: 95804**

**Client Sample ID: 082511-FB1-9.5**

**Prep Type: Total/NA**

**Prep Batch: 95777**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Naphthalene	ND	H	1220	1150	H	ug/Kg	⊗	94	64 - 129	5	26
2-Methylnaphthalene	ND	H	1220	1110	H	ug/Kg	⊗	91	65 - 125	4	27
1-Methylnaphthalene	ND	H	1220	1230	H	ug/Kg	⊗	101	48 - 148	6	30
Acenaphthylene	ND	H	1220	1160	H	ug/Kg	⊗	95	69 - 129	4	28
Acenaphthene	ND	H	1220	1110	H	ug/Kg	⊗	91	65 - 130	4	27
Fluorene	ND	H	1220	1070	H	ug/Kg	⊗	88	68 - 128	6	31
Phenanthrene	ND	H	1220	1140	H	ug/Kg	⊗	94	65 - 125	4	28
Anthracene	ND	H	1220	1160	H	ug/Kg	⊗	95	73 - 123	1	27

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: 580-28308-1 MSD**

**Matrix: Solid**

**Analysis Batch: 95804**

**Client Sample ID: 082511-FB1-9.5**

**Prep Type: Total/NA**

**Prep Batch: 95777**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Fluoranthene	ND	H	1220	1180	H	ug/Kg	⊗	96	61 - 121	3	36	
Pyrene	ND	H	1220	1200	H	ug/Kg	⊗	98	54 - 134	4	31	
Benzo[a]anthracene	ND	H	1220	1090	H	ug/Kg	⊗	89	64 - 124	7	27	
Chrysene	ND	H	1220	1050	H	ug/Kg	⊗	86	71 - 126	2	26	
Benzo[b]fluoranthene	ND	H	1220	1050	H	ug/Kg	⊗	86	66 - 136	13	31	
Benzo[k]fluoranthene	ND	H	1220	1070	H	ug/Kg	⊗	87	63 - 143	5	31	
Benzo[a]pyrene	ND	H	1220	1070	H	ug/Kg	⊗	88	68 - 128	4	30	
Indeno[1,2,3-cd]pyrene	ND	H	1220	1140	H	ug/Kg	⊗	93	59 - 139	4	29	
Dibenz(a,h)anthracene	ND	H	1220	1130	H	ug/Kg	⊗	93	57 - 142	4	30	
Benzo[g,h,i]perylene	ND	H	1220	1130	H	ug/Kg	⊗	93	57 - 142	4	28	
<b>MSD MSD</b>												
<b>Surrogate</b>	<b>% Recovery</b>		<b>Qualifier</b>		<b>Limits</b>							
Terphenyl-d14	67				42 - 151							

## Method: 8021B - Volatile Organic Compounds (GC)

**Lab Sample ID: MB 580-95847/1-A**

**Matrix: Solid**

**Analysis Batch: 95862**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95847**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier					Prepared	Analyzed	Prepared	Analyzed	
Benzene	ND		0.020		mg/Kg		09/21/11 15:12	09/21/11 19:27			1
Toluene	ND		0.050		mg/Kg		09/21/11 15:12	09/21/11 19:27			1
Ethylbenzene	ND		0.050		mg/Kg		09/21/11 15:12	09/21/11 19:27			1
m-Xylene & p-Xylene	ND		0.10		mg/Kg		09/21/11 15:12	09/21/11 19:27			1
o-Xylene	ND		0.10		mg/Kg		09/21/11 15:12	09/21/11 19:27			1
Xylenes, Total	ND		0.10		mg/Kg		09/21/11 15:12	09/21/11 19:27			1
<b>MB MB</b>											
<b>Surrogate</b>	<b>% Recovery</b>		<b>Qualifier</b>		<b>Limits</b>		<b>Prepared</b>		<b>Analyzed</b>		<b>Dil Fac</b>
a,a,a-Trifluorotoluene	112		50 - 150				09/21/11 15:12		09/21/11 19:27		1
4-Bromofluorobenzene (Surr)	96		75 - 135				09/21/11 15:12		09/21/11 19:27		1

**Lab Sample ID: LCS 580-95847/4-A**

**Matrix: Solid**

**Analysis Batch: 95862**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95847**

Analyte	Spike	LCS	LCS	% Rec.		
	Added	Result	Qualifier	Unit	D	
Benzene	0.800	0.832		mg/Kg	104	
Toluene	0.800	0.800		mg/Kg	100	
Ethylbenzene	0.800	0.796		mg/Kg	100	
m-Xylene & p-Xylene	1.60	1.53		mg/Kg	96	
o-Xylene	0.800	0.764		mg/Kg	96	
<b>LCS LCS</b>						
<b>Surrogate</b>	<b>% Recovery</b>		<b>Qualifier</b>		<b>Limits</b>	
a,a,a-Trifluorotoluene	108		50 - 150			
4-Bromofluorobenzene (Surr)	98		75 - 135			

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 580-95847/5-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 95862				Prep Batch: 95847							
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit		
Benzene	0.800	0.868		mg/Kg	109		75 - 125	4	20		
Toluene	0.800	0.832		mg/Kg	104		75 - 120	4	20		
Ethylbenzene	0.800	0.828		mg/Kg	104		80 - 120	4	20		
m-Xylene & p-Xylene	1.60	1.59		mg/Kg	99		75 - 120	4	20		
o-Xylene	0.800	0.792		mg/Kg	99		75 - 120	4	20		
Surrogate	LCSD % Recovery	LCSD Qualifier	LCSD Limits								
a,a,a-Trifluorotoluene	111		50 - 150								
4-Bromofluorobenzene (Surr)	98		75 - 135								

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-95847/1-A				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 95861				Prep Batch: 95847							
Analyte	MB Result	MB Qualifier	MB RL	MB MDL	MB Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline	ND		4.0	mg/Kg		09/21/11 15:12	09/21/11 19:27		1		
Surrogate	MB % Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	96		50 - 150			09/21/11 15:12	09/21/11 19:27		1		
Trifluorotoluene (Surr)	105		50 - 150			09/21/11 15:12	09/21/11 19:27		1		

Lab Sample ID: LCS 580-95847/2-A				Client Sample ID: Lab Control Sample							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 95861				Prep Batch: 95847							
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits				
Gasoline	40.0	39.1		mg/Kg	98		68 - 120				
Surrogate	LCSD % Recovery	LCSD Qualifier	LCSD Limits								
4-Bromofluorobenzene (Surr)	105		50 - 150								
Trifluorotoluene (Surr)	105		50 - 150								

Lab Sample ID: LCSD 580-95847/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 95861				Prep Batch: 95847							
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit		
Gasoline	40.0	39.2		mg/Kg	98		68 - 120	0	25		
Surrogate	LCSD % Recovery	LCSD Qualifier	LCSD Limits								
4-Bromofluorobenzene (Surr)	102		50 - 150								
Trifluorotoluene (Surr)	106		50 - 150								

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID:** MB 580-95756/1-A

**Matrix:** Solid

**Analysis Batch:** 95830

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 95756

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier								
PCB-1016	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1
PCB-1221	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1
PCB-1232	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1
PCB-1242	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1
PCB-1248	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1
PCB-1254	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1
PCB-1260	ND		0.010		mg/Kg		09/20/11 15:18		09/21/11 12:57	1

Surrogate	MB		Limits	Prepared		Analyzed	Dil Fac
	% Recovery	Qualifier					
Tetrachloro-m-xylene	95		45 - 155			09/20/11 15:18	1
DCB Decachlorobiphenyl	72		60 - 125			09/20/11 15:18	1

**Lab Sample ID:** LCS 580-95756/2-A

**Matrix:** Solid

**Analysis Batch:** 95830

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95756

Analyte	Spike		Result	LCS Qualifier	Unit	D	% Rec	% Rec.	
	Added								
PCB-1016	0.100		0.0849		mg/Kg		85	40 - 140	
PCB-1260	0.100		0.0810		mg/Kg		81	60 - 130	
Surrogate	LCS	LCS							
	% Recovery	Qualifier	Limits						
Tetrachloro-m-xylene	93		45 - 155						
DCB Decachlorobiphenyl	67		60 - 125						

**Lab Sample ID:** 580-28308-1 MS

**Matrix:** Solid

**Analysis Batch:** 95830

**Client Sample ID:** 082511-FB1-9.5

**Prep Type:** Total/NA

**Prep Batch:** 95756

Analyte	Sample		Spike	MS		Unit	D	% Rec	% Rec.	
	Result	Qualifier		Added						
PCB-1016	ND	H	0.126	0.125	H	mg/Kg	⊗	99	40 - 140	
PCB-1260	ND	H	0.126	0.111	H	mg/Kg	⊗	88	60 - 130	
Surrogate	MS	MS								
	% Recovery	Qualifier	Limits							
Tetrachloro-m-xylene	93		45 - 155							
DCB Decachlorobiphenyl	51	X	60 - 125							

**Lab Sample ID:** 580-28308-1 MSD

**Matrix:** Solid

**Analysis Batch:** 95830

**Client Sample ID:** 082511-FB1-9.5

**Prep Type:** Total/NA

**Prep Batch:** 95756

Analyte	Sample		Spike	MSD		Unit	D	% Rec	% Rec.	
	Result	Qualifier		Added						
PCB-1016	ND	H	0.125	0.108	H	mg/Kg	⊗	86	40 - 140	14
PCB-1260	ND	H	0.125	0.100	H	mg/Kg	⊗	80	60 - 130	10
Surrogate	MSD	MSD								
	% Recovery	Qualifier	Limits							
Tetrachloro-m-xylene	88		45 - 155							
DCB Decachlorobiphenyl	64		60 - 125							

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-95786/1-A**

**Matrix: Solid**

**Analysis Batch: 95823**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95786**

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
#2 Diesel (C10-C24)	ND		25		mg/Kg		09/21/11 09:06	09/21/11 14:01		1
Motor Oil (>C24-C36)	ND		50		mg/Kg		09/21/11 09:06	09/21/11 14:01		1
<b>Surrogate</b>										
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
	72		50 - 150				09/21/11 09:06	09/21/11 14:01		1

**Lab Sample ID: LCS 580-95786/2-A**

**Matrix: Solid**

**Analysis Batch: 95823**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95786**

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	% Rec.		Limits	RPD
	Added	Result					% Rec	Limits		
#2 Diesel (C10-C24)	500	464			mg/Kg		93	70 - 125		
Motor Oil (>C24-C36)	500	509			mg/Kg		102	64 - 127		
<b>Surrogate</b>										
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits							
	79		50 - 150							

**Lab Sample ID: 580-28308-1 DU**

**Matrix: Solid**

**Analysis Batch: 95823**

**Client Sample ID: 082511-FB1-9.5**

**Prep Type: Total/NA**

**Prep Batch: 95786**

Analyte	Sample		DU Result	DU Qualifier	Unit	D	DU		RPD	Limit
	Result	Qualifier					Sample	DU		
#2 Diesel (C10-C24)	ND	H			mg/Kg		ND	H		NC 35
Motor Oil (>C24-C36)	ND	H			mg/Kg		ND	H		NC 35
<b>Surrogate</b>										
<i>o-Terphenyl</i>	% Recovery	Qualifier	Limits							
	79		50 - 150							

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 580-95746/21-A**

**Client Sample ID: Method Blank**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 95897**

**Prep Batch: 95746**

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Arsenic	ND		3.0		mg/Kg		09/20/11 14:44	09/21/11 18:57		1
Lead	ND		1.5		mg/Kg		09/20/11 14:44	09/21/11 18:57		1
Cadmium	ND		0.50		mg/Kg		09/20/11 14:44	09/21/11 18:57		1
Chromium	ND		1.3		mg/Kg		09/20/11 14:44	09/21/11 18:57		1
Copper	ND		1.0		mg/Kg		09/20/11 14:44	09/21/11 18:57		1
Silver	ND		1.0		mg/Kg		09/20/11 14:44	09/21/11 18:57		1

**Lab Sample ID: MB 580-95746/21-A**

**Client Sample ID: Method Blank**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 95936**

**Prep Batch: 95746**

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Zinc	ND		2.0		mg/Kg		09/20/11 14:44	09/22/11 14:20		1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 580-95746/22-A**

**Matrix: Solid**

**Analysis Batch: 95897**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95746**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	% Rec.
	Added	Result	Qualifier				Limits
Arsenic	200	193		mg/Kg	97	80 - 120	
Lead	50.0	50.1		mg/Kg	100	80 - 120	
Cadmium	5.00	4.99		mg/Kg	100	80 - 120	
Chromium	20.0	20.1		mg/Kg	101	80 - 120	
Copper	25.0	24.9		mg/Kg	99	80 - 120	
Silver	30.0	30.0		mg/Kg	100	75 - 120	

**Lab Sample ID: LCS 580-95746/22-A**

**Matrix: Solid**

**Analysis Batch: 95936**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95746**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	% Rec.
	Added	Result	Qualifier				Limits
Zinc	50.0	54.0		mg/Kg	108	80 - 120	

**Lab Sample ID: LCSD 580-95746/23-A**

**Matrix: Solid**

**Analysis Batch: 95897**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 95746**

Analyte	Spike	LCSD	LCSD	Unit	D	% Rec	% Rec.	RPD
	Added	Result	Qualifier				Limits	Limit
Arsenic	200	201		mg/Kg	100	80 - 120	4	20
Lead	50.0	51.8		mg/Kg	104	80 - 120	3	20
Cadmium	5.00	5.16		mg/Kg	103	80 - 120	4	20
Chromium	20.0	20.5		mg/Kg	102	80 - 120	2	20
Copper	25.0	25.4		mg/Kg	102	80 - 120	2	20
Silver	30.0	30.6		mg/Kg	102	75 - 120	2	20

**Lab Sample ID: LCSD 580-95746/23-A**

**Matrix: Solid**

**Analysis Batch: 95936**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 95746**

Analyte	Spike	LCSD	LCSD	Unit	D	% Rec	% Rec.	RPD
	Added	Result	Qualifier				Limits	RPD
Zinc	50.0	53.0		mg/Kg	106	80 - 120	2	20

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 580-95767/18-A**

**Matrix: Solid**

**Analysis Batch: 95835**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95767**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.017		mg/Kg		09/21/11 07:45	09/21/11 10:47	1

**Lab Sample ID: LCS 580-95767/19-A**

**Matrix: Solid**

**Analysis Batch: 95835**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95767**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	% Rec.
	Added	Result	Qualifier				Limits
Mercury	0.167	0.154		mg/Kg	93	80 - 120	

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

## Method: 7471A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCSD 580-95767/20-A**

**Matrix: Solid**

**Analysis Batch: 95835**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 95767**

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec.	RPD	Limit
		Result	Qualifier			% Rec	Limits	RPD
Mercury	0.167	0.155		mg/Kg	93	80 - 120	1	20

**Lab Sample ID: LCSSRM 580-95767/21-A**

**Matrix: Solid**

**Analysis Batch: 95835**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95767**

Analyte	Spike Added	LCSSRM	LCSSRM	Unit	D	% Rec.	RPD	Limit
		Result	Qualifier			% Rec	Limits	RPD
Mercury	16.3	17.1		mg/Kg	105	51.1 - 148.	9	

## Method: Moisture - Percent Moisture

**Lab Sample ID: 580-28308-1 DU**

**Matrix: Solid**

**Analysis Batch: 95763**

**Client Sample ID: 082511-FB1-9.5**

**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier			RPD	Limit
Percent Solids	79		76		%		4	20
Percent Moisture	21		24		%		14	20

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB1-9.5**

**Lab Sample ID: 580-28308-1**

Date Collected: 08/25/11 10:35  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 12:00	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 01:46	JMB	TAL SEA
Total/NA	Analysis	8021B		1	95862	09/22/11 01:46	JMB	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 14:54	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 16:25	BT	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:14	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 20:57	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:29	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082511-FB4-8.7**

**Lab Sample ID: 580-28308-4**

Date Collected: 08/25/11 11:55  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 12:59	AP	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 15:54	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 17:07	BT	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:15	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 21:03	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:33	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082511-FB2-5.2**

**Lab Sample ID: 580-28308-7**

Date Collected: 08/25/11 13:55  
Date Received: 08/26/11 15:00

Matrix: Solid

Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 13:18	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 02:11	JMB	TAL SEA
Total/NA	Analysis	8021B		1	95862	09/22/11 02:11	JMB	TAL SEA

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB2-5.2**

Date Collected: 08/25/11 13:55  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-7**

Matrix: Solid  
Percent Solids: 91.5

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab	
	Type	Method	Run	Factor	Number	Or Analyzed		
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 16:20	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 17:22	BT	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:17	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 21:10	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:38	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082511-FB2-16.0**

Date Collected: 08/25/11 14:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-9**

Matrix: Solid

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab	
	Type	Method	Run	Factor	Number	Or Analyzed		
Total	Prep	EPA 5035A		2.42	1110741_P	08/25/11 14:20	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	1110741	09/26/11 15:01	ECF	TAL PTL
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 13:38	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 02:36	JMB	TAL SEA
Total/NA	Analysis	8021B		1	95862	09/22/11 02:36	JMB	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 16:48	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 17:36	BT	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:18	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 21:29	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:42	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082511-FB3-14.9**

Date Collected: 08/25/11 16:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-12**

Matrix: Solid  
Percent Solids: 55.8

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab	
	Type	Method	Run	Factor	Number	Or Analyzed		
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 13:57	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 03:01	JMB	TAL SEA
Total/NA	Analysis	8021B		1	95862	09/22/11 03:01	JMB	TAL SEA

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB3-14.9**

Date Collected: 08/25/11 16:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-12**

Matrix: Solid  
Percent Solids: 55.8

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 17:18	KKW
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH
Total/NA	Analysis	8082		1	95830	09/21/11 17:50	BT
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF
Total/NA	Analysis	7471A		1	95835	09/21/11 11:20	FCW
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF
Total/NA	Analysis	6010B		1	95897	09/21/11 21:35	PAB
Total/NA	Analysis	6010B		1	95936	09/22/11 15:46	PAB
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP

**Client Sample ID: 082511-FB5-6.2**

Date Collected: 08/25/11 18:20  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-15**

Matrix: Solid  
Percent Solids: 75.5

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF
Total/NA	Analysis	7471A		5	95842	09/21/11 13:55	FCW
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF
Total/NA	Analysis	6010B		1	95897	09/21/11 21:42	PAB
Total/NA	Analysis	6010B		1	95936	09/22/11 15:59	PAB
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP

**Client Sample ID: 082511-FB5-10.2**

Date Collected: 08/25/11 18:30  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-16**

Matrix: Solid  
Percent Solids: 89.3

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF
Total/NA	Analysis	7471A		1	95835	09/21/11 11:23	FCW
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF
Total/NA	Analysis	6010B		1	95897	09/21/11 21:49	PAB
Total/NA	Analysis	6010B		1	95936	09/22/11 16:04	PAB
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:46	JP

**Client Sample ID: 082511-FB5-18.0**

Date Collected: 08/25/11 18:40  
Date Received: 08/26/11 15:00

**Lab Sample ID: 580-28308-17**

Matrix: Solid

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	
Total	Prep	EPA 5035A		1.53	1110741_P	08/25/11 18:40	TDB
Total	Analysis	EPA 8260B		100	1110741	09/26/11 15:23	ECF
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 14:17	AP

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

**Client Sample ID: 082511-FB5-18.0**

**Date Collected: 08/25/11 18:40**

**Date Received: 08/26/11 15:00**

**Lab Sample ID: 580-28308-17**

**Matrix: Solid**

**Percent Solids: 62.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 17:46	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 18:04	BT	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:29	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 21:55	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 16:08	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Laboratory References:**

TAL PTL = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503) 906-9200

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

## Certification Summary

Client: Farallon Consulting LLC  
 Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Sample Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28308-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-28308-1	082511-FB1-9.5	Solid	08/25/11 10:35	08/26/11 15:00
580-28308-4	082511-FB4-8.7	Solid	08/25/11 11:55	08/26/11 15:00
580-28308-7	082511-FB2-5.2	Solid	08/25/11 13:55	08/26/11 15:00
580-28308-9	082511-FB2-16.0	Solid	08/25/11 14:20	08/26/11 15:00
580-28308-12	082511-FB3-14.9	Solid	08/25/11 16:20	08/26/11 15:00
580-28308-15	082511-FB5-6.2	Solid	08/25/11 18:20	08/26/11 15:00
580-28308-16	082511-FB5-10.2	Solid	08/25/11 18:30	08/26/11 15:00
580-28308-17	082511-FB5-18.0	Solid	08/25/11 18:40	08/26/11 15:00

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-28308-2

**Login Number: 28308**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Luna, Francisco**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-28309-2  
Client Project/Site: Sno Pac  
Revision: 1

For:  
Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Donald Lance

Kristine D. Allen

Authorized for release by:  
10/05/2011 04:49:58 PM

Kristine Allen  
Project Manager I  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

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Expert

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[www.testamericainc.com](http://www.testamericainc.com)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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## Case Narrative

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

### Job ID: 580-28309-2

Laboratory: TestAmerica Seattle

#### Narrative

##### Receipt

All samples were received in good condition within temperature requirements.

Samples were logged in following the Chain of Custody (COC) submitted with the samples. Client emailed revised COCs to project manager later that day. The project manager did not realize the emailed COCs were different from the COCs that accompanied the samples. The error was not discovered until the samples had expired. The samples were then logged in following the revised COCs and tested out of hold. The samples tested out of hold are flagged "H."

##### GC/MS VOA - Method 8260B

The laboratory control sample (LCS) exceeded control limits for the following analytes in analytical batch 94924: 1,1-Dichloroethane, Dichlorobromomethane, Chlorodibromomethane. The samples were reanalyzed for these analytes in batch 94925.

The initial calibration verification (ICV 94502/16) associated with calibration batch 94502 was outside of the control limits for Bromomethane. The samples were reanalyzed for this analytes in batch 96666. This reanalysis occurred out of analytical hold time and the data is qualified "H."

No analytical or quality issues were noted.

##### GC Semi VOA - Method 8082

Recovery of the surrogates Tetrachloro-m-xylene and DCB Decachlorobiphenyl in samples 082611-FB6-11.6 (580-28309-4) and 082611-FB9-12.0 (580-28309-13) exceeded quality control limits due to matrix interference. The anomaly was flagged "X."

The following sample required a sulfuric acid clean-up to reduce matrix interferences (Sulfuric acid Lot# 709195): 082611-FB6-11.6 (580-28309-4) and 082611-FB9-12.0 (580-28309-13).

No other analytical or quality issues were noted.

##### Metals

For sample 082611-FB6-1.1 (580-28309-3), 082611-FB7-11.8 (580-28309-10) and 082611-FB9-12.0 (580-28309-13) the value for Silver is a negative result lower than the absolute value of the RL. The method blank (MB) and CCB's for Selenium were all below the RL. The negative result was most likely caused by matrix interference.

No other analytical or quality issues were noted.

##### General Chemistry

No analytical or quality issues were noted.

##### Subcontract Work

Method 8260 standard list: This method was subcontracted to TestAmerica Portland. The subcontract certification is different from those listed on the TestAmerica cover page of this final report.

## Definitions/Glossary

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

#### GCMS Volatiles

Qualifier	Qualifier Description
H3	Sample was received and analyzed past holding time.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

#### GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

#### GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
X	Surrogate is outside control limits

#### Metals

Qualifier	Qualifier Description
L	A negative instrument reading had an absolute value greater than the reporting limit

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: TB-5-082611**

Date Collected: 08/26/11 10:49

Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-2**

Matrix: Solid

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Chloromethane	ND		400		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Vinyl chloride	ND		8.0		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Chloroethane	ND		400		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Trichlorodifluoromethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,1-Dichloroethene	ND		20		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Methylene Chloride	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
trans-1,2-Dichloroethene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
2,2-Dichloropropane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
cis-1,2-Dichloroethene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Chlorobromomethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Chloroform	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,1,1-Trichloroethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Carbon tetrachloride	ND		20		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,1-Dichloropropene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Benzene	ND		16		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,2-Dichloroethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Trichloroethene	ND		16		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,2-Dichloropropane	ND		12		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Dibromomethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
cis-1,3-Dichloropropene	ND		16		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Toluene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
trans-1,3-Dichloropropene	ND		16		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,1,2-Trichloroethane	ND		12		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Tetrachloroethene	ND		20		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,3-Dichloropropene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Ethylene Dibromide	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Chlorobenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Ethylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,1,1,2-Tetrachloroethane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,1,2,2-Tetrachloroethane	ND		10		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
m-Xylene & p-Xylene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
o-Xylene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Styrene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Bromoform	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Isopropylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
Bromobenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
N-Propylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,2,3-Trichloropropane	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
2-Chlorotoluene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,3,5-Trimethylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
4-Chlorotoluene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
tert-Butylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,2,4-Trimethylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
sec-Butylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,3-Dichlorobenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
4-Isopropyltoluene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,4-Dichlorobenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
n-Butylbenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1
1,2-Dichlorobenzene	ND		40		ug/Kg	09/08/11 15:24	09/08/11 16:43		1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: TB-5-082611**  
**Date Collected: 08/26/11 10:49**  
**Date Received: 08/26/11 16:20**

**Lab Sample ID: 580-28309-2**  
**Matrix: Solid**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		200		ug/Kg		09/08/11 15:24	09/08/11 16:43	1
1,2,4-Trichlorobenzene	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:43	1
1,2,3-Trichlorobenzene	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:43	1
Hexachlorobutadiene	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:43	1
Naphthalene	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:43	1
Methyl tert-butyl ether	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:43	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Fluorobenzene (Surr)	94		80 - 120				09/08/11 15:24	09/08/11 16:43	1
Toluene-d8 (Surr)	102		80 - 120				09/08/11 15:24	09/08/11 16:43	1
Ethylbenzene-d10	99		70 - 120				09/08/11 15:24	09/08/11 16:43	1
4-Bromofluorobenzene (Surr)	104		70 - 120				09/08/11 15:24	09/08/11 16:43	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:55	1
Dichlorobromomethane	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:55	1
Chlorodibromomethane	ND		40		ug/Kg		09/08/11 15:24	09/08/11 16:55	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - RA2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND	H	140		ug/Kg		09/08/11 15:24	10/02/11 20:15	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB6-1.1**

**Lab Sample ID: 580-28309-3**

Date Collected: 08/26/11 08:00

Matrix: Solid

Date Received: 08/26/11 16:20

Percent Solids: 72.3

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.5		3.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:24	1
Lead	99		1.9		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:24	1
Cadmium	1.9		0.63		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:24	1
Chromium	25		1.6		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:24	1
Copper	97		1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:24	1
Silver	ND	L	1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:24	1
Zinc	320		2.5		mg/Kg	⊗	09/20/11 14:44	09/22/11 14:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	72		0.10		%			09/20/11 15:39	1
Percent Moisture	28		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB6-11.6**

**Lab Sample ID: 580-28309-4**

Date Collected: 08/26/11 08:20  
Date Received: 08/26/11 16:20

Matrix: Solid

Percent Solids: 62.0

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
2-Methylnaphthalene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
1-Methylnaphthalene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Acenaphthylene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Acenaphthene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Fluorene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Phenanthrene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Anthracene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Fluoranthene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Pyrene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Benzo[a]anthracene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Chrysene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Benzo[b]fluoranthene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Benzo[k]fluoranthene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Benzo[a]pyrene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Indeno[1,2,3-cd]pyrene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Dibenz(a,h)anthracene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
Benzo[g,h,i]perylene	ND	H	7.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:36	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	68		42 - 151				09/21/11 08:01	09/21/11 14:36	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
PCB-1221	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
PCB-1232	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
PCB-1242	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
PCB-1248	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
PCB-1254	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
PCB-1260	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:18	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	32	X	45 - 155				09/20/11 15:18	09/21/11 18:18	1
DCB Decachlorobiphenyl	22	X	60 - 125				09/20/11 15:18	09/21/11 18:18	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	39		mg/Kg	⊗	09/21/11 09:06	09/21/11 18:13	1
Motor Oil (>C24-C36)	ND	H	79		mg/Kg	⊗	09/21/11 09:06	09/21/11 18:13	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	83		50 - 150				09/21/11 09:06	09/21/11 18:13	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		4.0		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:31	1
Lead	50		2.0		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:31	1
Cadmium	ND		0.66		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:31	1
Chromium	15		1.7		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:31	1
Copper	21		1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:31	1

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB6-11.6**

**Lab Sample ID: 580-28309-4**

Date Collected: 08/26/11 08:20

Matrix: Solid

Date Received: 08/26/11 16:20

Percent Solids: 62.0

**Method: 6010B - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.3		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:31	1
Zinc	30		2.6		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:12	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.021		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	62		0.10		%			09/20/11 15:39	1
Percent Moisture	38		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB8-11.6**

**Lab Sample ID: 580-28309-7**

Date Collected: 08/26/11 10:05  
Date Received: 08/26/11 16:20

Matrix: Solid  
Percent Solids: 54.9

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
2-Methylnaphthalene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
1-Methylnaphthalene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Acenaphthylene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Acenaphthene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Fluorene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Phenanthrene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Anthracene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Fluoranthene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Pyrene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Benzo[a]anthracene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Chrysene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Benzo[b]fluoranthene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Benzo[k]fluoranthene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Benzo[a]pyrene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Indeno[1,2,3-cd]pyrene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Dibenz(a,h)anthracene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
Benzo[g,h,i]perylene	ND	H	8.8		ug/Kg	⊗	09/21/11 08:01	09/21/11 14:55	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	63		42 - 151				09/21/11 08:01	09/21/11 14:55	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.050		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
Toluene	ND	H	0.12		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
Ethylbenzene	ND	H	0.12		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
m-Xylene & p-Xylene	ND	H	0.25		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
o-Xylene	ND	H	0.25		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
Xylenes, Total	ND	H	0.25		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	95		75 - 135				09/21/11 15:12	09/22/11 03:27	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	9.9		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:27	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	102		50 - 150				09/21/11 15:12	09/22/11 03:27	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	43		mg/Kg	⊗	09/21/11 09:06	09/21/11 19:38	1
Motor Oil (>C24-C36)	ND	H	86		mg/Kg	⊗	09/21/11 09:06	09/21/11 19:38	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	83		50 - 150				09/21/11 09:06	09/21/11 19:38	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		5.0		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:37	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB8-11.6**

**Lab Sample ID: 580-28309-7**

Date Collected: 08/26/11 10:05

Matrix: Solid

Date Received: 08/26/11 16:20

Percent Solids: 54.9

**Method: 6010B - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13		2.5		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:37	1
Cadmium	ND		0.84		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:37	1
Chromium	18		2.2		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:37	1
Copper	30		1.7		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:37	1
Silver	ND		1.7		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:37	1
Zinc	45		3.4		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:16	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.094		0.028		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:09	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	55		0.10		%			09/20/11 15:39	1
Percent Moisture	45		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB7-11.8**

Date Collected: 08/26/11 11:20  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-10**

Matrix: Solid  
Percent Solids: 63.3

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
2-Methylnaphthalene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
1-Methylnaphthalene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Acenaphthylene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Acenaphthene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Fluorene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Phenanthrene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Anthracene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Fluoranthene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Pyrene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Benzo[a]anthracene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Chrysene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Benzo[b]fluoranthene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Benzo[k]fluoranthene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Benzo[a]pyrene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Indeno[1,2,3-cd]pyrene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Dibenz(a,h)anthracene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
Benzo[g,h,i]perylene	ND	H	7.5		ug/Kg	⊗	09/21/11 08:01	09/21/11 15:15	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Terphenyl-d14	77		42 - 151				09/21/11 08:01	09/21/11 15:15	1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	0.068		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
Toluene	ND	H	0.17		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
Ethylbenzene	ND	H	0.17		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
m-Xylene & p-Xylene	ND	H	0.34		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
o-Xylene	ND	H	0.34		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
Xylenes, Total	ND	H	0.34		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	94		75 - 135				09/21/11 15:12	09/22/11 03:52	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	14		mg/Kg	⊗	09/21/11 15:12	09/22/11 03:52	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		50 - 150				09/21/11 15:12	09/22/11 03:52	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	39		mg/Kg	⊗	09/21/11 09:06	09/21/11 20:05	1
Motor Oil (>C24-C36)	ND	H	78		mg/Kg	⊗	09/21/11 09:06	09/21/11 20:05	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	84		50 - 150				09/21/11 09:06	09/21/11 20:05	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.8		4.2		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:44	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB7-11.8**

**Lab Sample ID: 580-28309-10**

Date Collected: 08/26/11 11:20  
Date Received: 08/26/11 16:20

Matrix: Solid

Percent Solids: 63.3

**Method: 6010B - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.7		2.1		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:44	1
Cadmium	ND		0.71		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:44	1
Chromium	19		1.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:44	1
Copper	26		1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:44	1
Silver	ND	L	1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:44	1
Zinc	39		2.8		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:21	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.023		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	63		0.10		%			09/20/11 15:39	1
Percent Moisture	37		0.10		%			09/20/11 15:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB9-12.0**

Date Collected: 08/26/11 13:25

Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-13**

Matrix: Solid

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	H3	5170		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Benzene	ND	H3	41.3		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Bromobenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Bromochloromethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Bromodichloromethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Bromoform	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Bromomethane	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
2-Butanone (MEK)	ND	H3	2070		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
n-Butylbenzene	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
sec-Butylbenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
tert-Butylbenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Carbon disulfide	ND	H3	2070		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Carbon tetrachloride	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Chlorobenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Chloroethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Chloroform	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Chloromethane	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
2-Chlorotoluene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
4-Chlorotoluene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,2-Dibromo-3-chloropropane	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Dibromochloromethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,2-Dibromoethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Dibromomethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,2-Dichlorobenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,3-Dichlorobenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,4-Dichlorobenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Dichlorodifluoromethane	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,1-Dichloroethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,2-Dichloroethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,1-Dichloroethene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
cis-1,2-Dichloroethene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
trans-1,2-Dichloroethene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,2-Dichloropropane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,3-Dichloropropane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
2,2-Dichloropropane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,1-Dichloropropene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
cis-1,3-Dichloropropene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
trans-1,3-Dichloropropene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Ethylbenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Hexachlorobutadiene	ND	H3	826		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
2-Hexanone	ND	H3	2070		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Isopropylbenzene	ND	H3	413		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
p-Isopropyltoluene	ND	H3	413		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
4-Methyl-2-pentanone	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Methyl tert-butyl ether	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Methylene chloride	ND	H3	1030		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Naphthalene	ND	H3	413		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
n-Propylbenzene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
Styrene	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	
1,1,1,2-Tetrachloroethane	ND	H3	207		ug/kg wet	08/26/11 13:25	09/26/11 14:38	100	

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB9-12.0**  
Date Collected: 08/26/11 13:25  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-13**  
Matrix: Solid

Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
Tetrachloroethene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
Toluene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,2,3-Trichlorobenzene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,2,4-Trichlorobenzene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,1,1-Trichloroethane	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,1,2-Trichloroethane	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
Trichloroethene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
Trichlorofluoromethane	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,2,3-Trichloropropane	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,2,4-Trimethylbenzene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
1,3,5-Trimethylbenzene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
Vinyl chloride	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
o-Xylene	ND	H3	207		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
m,p-Xylene	ND	H3	413		ug/kg wet		08/26/11 13:25	09/26/11 14:38	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	95.6	H3	70 - 135				08/26/11 13:25	09/26/11 14:38	100
1,2-DCA-d4	102	H3	60 - 145				08/26/11 13:25	09/26/11 14:38	100
Toluene-d8	98.0	H3	70 - 140				08/26/11 13:25	09/26/11 14:38	100
4-BFB	103	H3	70 - 140				08/26/11 13:25	09/26/11 14:38	100

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
2-Methylnaphthalene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
1-Methylnaphthalene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Acenaphthylene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Acenaphthene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Fluorene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Phenanthrene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Anthracene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
<b>Fluoranthene</b>	<b>14</b>	<b>H</b>	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
<b>Pyrene</b>	<b>11</b>	<b>H</b>	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Benzo[a]anthracene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Chrysene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Benzo[b]fluoranthene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Benzo[k]fluoranthene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Benzo[a]pyrene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Indeno[1,2,3-cd]pyrene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Dibenz(a,h)anthracene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Benzo[g,h,i]perylene	ND	H	7.8		ug/Kg	☀	09/21/11 08:01	09/21/11 15:34	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	65		42 - 151				09/21/11 08:01	09/21/11 15:34	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND	H	14		mg/Kg	☀	09/21/11 15:12	09/22/11 04:17	1

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB9-12.0**

Date Collected: 08/26/11 13:25

Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-13**

Matrix: Solid

Percent Solids: 61.2

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		50 - 150	09/21/11 15:12	09/22/11 04:17	1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1
PCB-1221	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1
PCB-1232	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1
PCB-1242	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1
PCB-1248	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1
PCB-1254	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1
PCB-1260	ND	H	0.016		mg/Kg	⊗	09/20/11 15:18	09/21/11 18:32	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	40	X	45 - 155	09/20/11 15:18	09/21/11 18:32	1
DCB Decachlorobiphenyl	27	X	60 - 125	09/20/11 15:18	09/21/11 18:32	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	H	40		mg/Kg	⊗	09/21/11 09:06	09/21/11 20:34	1
Motor Oil (>C24-C36)	ND	H	79		mg/Kg	⊗	09/21/11 09:06	09/21/11 20:34	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	82		50 - 150				09/21/11 09:06	09/21/11 20:34	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.0		4.2		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:50	1
Lead	7.7		2.1		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:50	1
Cadmium	ND		0.70		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:50	1
Chromium	17		1.8		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:50	1
Copper	43		1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:50	1
Silver	ND	L	1.4		mg/Kg	⊗	09/20/11 14:44	09/21/11 20:50	1
Zinc	62		2.8		mg/Kg	⊗	09/20/11 14:44	09/22/11 15:25	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.024		mg/Kg	⊗	09/21/11 07:45	09/21/11 11:12	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	61		0.10		%			09/20/11 15:39	1
Percent Moisture	39		0.10		%			09/20/11 15:39	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 580-94851/1-A**

**Matrix: Solid**

**Analysis Batch: 94924**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94851**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Chloromethane		ND			400		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Vinyl chloride		ND			8.0		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Chloroethane		ND			400		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Trichlorofluoromethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,1-Dichloroethene		ND			20		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Methylene Chloride		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
trans-1,2-Dichloroethene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
2,2-Dichloropropane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
cis-1,2-Dichloroethene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Chlorobromomethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Chloroform		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,1,1-Trichloroethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Carbon tetrachloride		ND			20		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,1-Dichloropropene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Benzene		ND			16		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,2-Dichloroethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Trichloroethene		ND			16		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,2-Dichloropropane		ND			12		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Dibromomethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
cis-1,3-Dichloropropene		ND			16		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Toluene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
trans-1,3-Dichloropropene		ND			16		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,1,2-Trichloroethane		ND			12		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Tetrachloroethene		ND			20		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,3-Dichloropropane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Ethylene Dibromide		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Chlorobenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Ethylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,1,1,2-Tetrachloroethane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,1,2,2-Tetrachloroethane		ND			10		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
m-Xylene & p-Xylene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
o-Xylene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Styrene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Bromoform		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Isopropylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
Bromobenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
N-Propylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,2,3-Trichloropropane		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
2-Chlorotoluene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,3,5-Trimethylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
4-Chlorotoluene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
tert-Butylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,2,4-Trimethylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
sec-Butylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,3-Dichlorobenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
4-Isopropyltoluene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
1,4-Dichlorobenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1
n-Butylbenzene		ND			40		ug/Kg	09/08/11 08:33	09/08/11 08:33	09/08/11 12:41	1

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 580-94851/1-A**

**Matrix: Solid**

**Analysis Batch: 94924**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94851**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:41	1
1,2-Dibromo-3-Chloropropane	ND		200		ug/Kg		09/08/11 08:33	09/08/11 12:41	1
1,2,4-Trichlorobenzene	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:41	1
1,2,3-Trichlorobenzene	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:41	1
Hexachlorobutadiene	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:41	1
Naphthalene	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:41	1
Methyl tert-butyl ether	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:41	1

**MB MB**

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	93		80 - 120	09/08/11 08:33	09/08/11 12:41	1
Toluene-d8 (Surr)	100		80 - 120	09/08/11 08:33	09/08/11 12:41	1
Ethylbenzene-d10	101		70 - 120	09/08/11 08:33	09/08/11 12:41	1
4-Bromofluorobenzene (Surr)	109		70 - 120	09/08/11 08:33	09/08/11 12:41	1
Trifluorotoluene (Surr)	112		65 - 140	09/08/11 08:33	09/08/11 12:41	1

**Lab Sample ID: MB 580-94851/1-A**

**Matrix: Solid**

**Analysis Batch: 94925**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94851**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:54	1
Dichlorobromomethane	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:54	1
Chlorodibromomethane	ND		40		ug/Kg		09/08/11 08:33	09/08/11 12:54	1

**MB MB**

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	94		80 - 120	09/08/11 08:33	09/08/11 12:54	1
Toluene-d8 (Surr)	101		80 - 120	09/08/11 08:33	09/08/11 12:54	1
Ethylbenzene-d10	111		70 - 120	09/08/11 08:33	09/08/11 12:54	1
4-Bromofluorobenzene (Surr)	103		70 - 120	09/08/11 08:33	09/08/11 12:54	1
Trifluorotoluene (Surr)	121		65 - 140	09/08/11 08:33	09/08/11 12:54	1

**Lab Sample ID: MB 580-94851/1-A**

**Matrix: Solid**

**Analysis Batch: 96666**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 94851**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		140		ug/Kg		09/08/11 08:33	10/02/11 18:38	1

**MB MB**

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	103		80 - 120	09/08/11 08:33	10/02/11 18:38	1
Toluene-d8 (Surr)	99		80 - 120	09/08/11 08:33	10/02/11 18:38	1
Ethylbenzene-d10	104		70 - 120	09/08/11 08:33	10/02/11 18:38	1
4-Bromofluorobenzene (Surr)	98		70 - 120	09/08/11 08:33	10/02/11 18:38	1
Trifluorotoluene (Surr)	108		65 - 140	09/08/11 08:33	10/02/11 18:38	1

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 580-94851/2-A**

**Matrix: Solid**

**Analysis Batch: 94924**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94851**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	Limits
Dichlorodifluoromethane	800	452		ug/Kg	57	35 - 135		
Chloromethane	800	440		ug/Kg	55	50 - 130		
Vinyl chloride	800	588		ug/Kg	74	60 - 125		
Chloroethane	800	840		ug/Kg	105	40 - 155		
Trichlorofluoromethane	800	568		ug/Kg	71	25 - 185		
1,1-Dichloroethene	792	528		ug/Kg	67	65 - 135		
Methylene Chloride	800	596		ug/Kg	74	55 - 140		
trans-1,2-Dichloroethene	801	536		ug/Kg	67	65 - 135		
2,2-Dichloropropane	801	604		ug/Kg	75	65 - 135		
cis-1,2-Dichloroethene	799	592		ug/Kg	74	65 - 125		
Chlorobromomethane	794	736		ug/Kg	93	70 - 125		
Chloroform	800	580		ug/Kg	72	70 - 125		
1,1,1-Trichloroethane	800	612		ug/Kg	76	70 - 135		
Carbon tetrachloride	801	552		ug/Kg	69	65 - 135		
1,1-Dichloropropene	797	680		ug/Kg	85	70 - 135		
Benzene	796	652		ug/Kg	82	75 - 125		
1,2-Dichloroethane	793	612		ug/Kg	77	70 - 135		
Trichloroethene	800	804		ug/Kg	100	75 - 125		
1,2-Dichloropropane	800	840		ug/Kg	105	70 - 120		
Dibromomethane	789	756		ug/Kg	96	75 - 130		
cis-1,3-Dichloropropene	840	588		ug/Kg	70	70 - 125		
Toluene	800	708		ug/Kg	88	70 - 125		
trans-1,3-Dichloropropene	760	552		ug/Kg	73	65 - 125		
1,1,2-Trichloroethane	790	756		ug/Kg	96	60 - 125		
Tetrachloroethene	801	648		ug/Kg	81	65 - 140		
1,3-Dichloropropane	800	736		ug/Kg	92	75 - 125		
Ethylene Dibromide	800	736		ug/Kg	92	70 - 125		
Chlorobenzene	800	676		ug/Kg	85	75 - 125		
Ethylbenzene	794	676		ug/Kg	85	75 - 125		
1,1,1,2-Tetrachloroethane	789	600		ug/Kg	76	75 - 125		
1,1,2,2-Tetrachloroethane	800	620		ug/Kg	78	55 - 130		
m-Xylene & p-Xylene	1600	1340		ug/Kg	84	80 - 125		
o-Xylene	800	668		ug/Kg	84	75 - 125		
Styrene	798	776		ug/Kg	97	75 - 125		
Bromoform	797	612		ug/Kg	77	55 - 135		
Isopropylbenzene	800	692		ug/Kg	87	75 - 130		
Bromobenzene	796	752		ug/Kg	94	65 - 120		
N-Propylbenzene	800	676		ug/Kg	85	65 - 135		
1,2,3-Trichloropropane	788	660		ug/Kg	84	65 - 130		
2-Chlorotoluene	792	720		ug/Kg	91	70 - 130		
1,3,5-Trimethylbenzene	800	776		ug/Kg	97	65 - 135		
4-Chlorotoluene	788	728		ug/Kg	92	75 - 125		
tert-Butylbenzene	797	820		ug/Kg	103	65 - 130		
1,2,4-Trimethylbenzene	801	684		ug/Kg	85	65 - 135		
sec-Butylbenzene	800	828		ug/Kg	103	65 - 130		
1,3-Dichlorobenzene	798	708		ug/Kg	89	70 - 125		
4-Isopropyltoluene	796	680		ug/Kg	85	75 - 135		
1,4-Dichlorobenzene	799	668		ug/Kg	84	70 - 125		
n-Butylbenzene	792	816		ug/Kg	103	65 - 140		

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 580-94851/2-A**

**Matrix: Solid**

**Analysis Batch: 94924**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94851**

Analyte		Spike	LCS	LCS	Unit	D	% Rec	Limits
		Added	Result	Qualifier				
1,2-Dichlorobenzene		786	700		ug/Kg	89	75 - 120	
1,2-Dibromo-3-Chloropropane		800	600		ug/Kg	75	40 - 135	
1,2,4-Trichlorobenzene		795	788		ug/Kg	99	65 - 130	
1,2,3-Trichlorobenzene		800	688		ug/Kg	86	60 - 135	
Hexachlorobutadiene		800	764		ug/Kg	96	55 - 140	
Naphthalene		800	628		ug/Kg	78	40 - 125	
Methyl tert-butyl ether		800	644		ug/Kg	81	65 - 125	

Surrogate	LCS		LCS	Limits
	% Recovery	Qualifier		
Fluorobenzene (Surr)	93		80 - 120	
Toluene-d8 (Surr)	104		80 - 120	
Ethylbenzene-d10	98		70 - 120	
4-Bromofluorobenzene (Surr)	107		70 - 120	
Trifluorotoluene (Surr)	114		65 - 140	

**Lab Sample ID: LCS 580-94851/2-A**

**Matrix: Solid**

**Analysis Batch: 94925**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94851**

Analyte		Spike	LCS	LCS	Unit	D	% Rec	Limits
		Added	Result	Qualifier				
1,1-Dichloroethane		792	636		ug/Kg	80	75 - 125	
Dichlorobromomethane		790	648		ug/Kg	82	70 - 130	
Chlorodibromomethane		793	636		ug/Kg	80	65 - 130	

Surrogate	LCS		LCS	Limits
	% Recovery	Qualifier		
Fluorobenzene (Surr)	94		80 - 120	
Toluene-d8 (Surr)	102		80 - 120	
Ethylbenzene-d10	116		70 - 120	
4-Bromofluorobenzene (Surr)	112		70 - 120	
Trifluorotoluene (Surr)	114		65 - 140	

**Lab Sample ID: LCS 580-94851/2-A**

**Matrix: Solid**

**Analysis Batch: 96666**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 94851**

Analyte		Spike	LCS	LCS	Unit	D	% Rec	Limits
		Added	Result	Qualifier				
Bromomethane		800	516		ug/Kg	65	30 - 160	

Surrogate	LCS		LCS	Limits
	% Recovery	Qualifier		
Fluorobenzene (Surr)	101		80 - 120	
Toluene-d8 (Surr)	102		80 - 120	
Ethylbenzene-d10	101		70 - 120	
4-Bromofluorobenzene (Surr)	106		70 - 120	
Trifluorotoluene (Surr)	96		65 - 140	

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B

**Lab Sample ID: 11I0741-BLK1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		2420		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Benzene	ND		19.3		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Bromobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Bromochloromethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Bromodichloromethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Bromoform	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Bromomethane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
2-Butanone (MEK)	ND		967		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
n-Butylbenzene	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
sec-Butylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
tert-Butylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Carbon disulfide	ND		967		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Carbon tetrachloride	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Chlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Chloroethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Chloroform	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Chloromethane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
2-Chlorotoluene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
4-Chlorotoluene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,2-Dibromo-3-chloropropane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Dibromochloromethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,2-Dibromoethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Dibromomethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,2-Dichlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,3-Dichlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,4-Dichlorobenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Dichlorodifluoromethane	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,1-Dichloroethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,2-Dichloroethane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,1-Dichloroethene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
cis-1,2-Dichloroethene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
trans-1,2-Dichloroethene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,2-Dichloropropane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,3-Dichloropropane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
2,2-Dichloropropane	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
1,1-Dichloropropene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
cis-1,3-Dichloropropene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
trans-1,3-Dichloropropene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Ethylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Hexachlorobutadiene	ND		387		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
2-Hexanone	ND		967		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Isopropylbenzene	ND		193		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
p-Isopropyltoluene	ND		193		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
4-Methyl-2-pentanone	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Methyl tert-butyl ether	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Methylene chloride	ND		484		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Naphthalene	ND		193		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
n-Propylbenzene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	
Styrene	ND		96.7		ug/kg wet	09/26/11 09:45	09/26/11 11:48	100	

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11I0741-BLK1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,1,2,2-Tetrachloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Tetrachloroethene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Toluene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,3-Trichlorobenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,4-Trichlorobenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,1,1-Trichloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,1,2-Trichloroethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Trichloroethene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Trichlorofluoromethane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,3-Trichloropropane			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,2,4-Trimethylbenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
1,3,5-Trimethylbenzene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Vinyl chloride			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
o-Xylene			ND		96.7		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
m,p-Xylene			ND		193		ug/kg wet		09/26/11 09:45	09/26/11 11:48	100
Surrogate	Blank	Blank	% Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
Dibromofluoromethane			99.3		70 - 135				09/26/11 09:45	09/26/11 11:48	100
1,2-DCA-d4			104		60 - 145				09/26/11 09:45	09/26/11 11:48	100
Toluene-d8			99.0		70 - 140				09/26/11 09:45	09/26/11 11:48	100
4-BFB			101		70 - 140				09/26/11 09:45	09/26/11 11:48	100

**Lab Sample ID: 11I0741-BS1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

Analyte	Spike	LCS		Unit	D	% Rec	Limits	% Rec.
		Added	Result	Qualifier				
Acetone		9880	9480	ug/kg wet		95.9	65 - 167	
Benzene		1980	1710	ug/kg wet		86.7	81.9 - 125	
Bromobenzene		1980	1700	ug/kg wet		86.0	80 - 120	
Bromochloromethane		1980	1930	ug/kg wet		97.6	80 - 120	
Bromodichloromethane		1980	1830	ug/kg wet		92.8	80 - 141	
Bromoform		1980	1500	ug/kg wet		75.7	75 - 151	
Bromomethane		1980	1520	ug/kg wet		76.7	65 - 130	
2-Butanone (MEK)		9880	10100	ug/kg wet		103	68 - 127	
n-Butylbenzene		1980	2110	ug/kg wet		107	90 - 146	
sec-Butylbenzene		1980	1850	ug/kg wet		93.4	80 - 133	
tert-Butylbenzene		1980	1830	ug/kg wet		92.3	80 - 130	
Carbon disulfide		3950	3500	ug/kg wet		88.6	67 - 140	
Carbon tetrachloride		1980	1990	ug/kg wet		101	71 - 128	
Chlorobenzene		1980	1860	ug/kg wet		93.9	79.2 - 125	
Chloroethane		1980	2000	ug/kg wet		101	75 - 125	
Chloroform		1980	1760	ug/kg wet		89.0	80 - 121	
Chloromethane		1980	1970	ug/kg wet		99.9	42 - 150	
2-Chlorotoluene		1980	1680	ug/kg wet		84.8	80 - 120	
4-Chlorotoluene		1980	1700	ug/kg wet		86.2	80 - 126	
1,2-Dibromo-3-chloropropane		1980	1810	ug/kg wet		91.8	61 - 128	
Dibromochloromethane		1980	1690	ug/kg wet		85.5	75 - 125	

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11I0741-BS1**

**Matrix: Soil**

**Analysis Batch: 11I0741**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11I0741\_P**

**% Rec.**

Analyte	Spike Added	LCS		Unit	D	% Rec	Limits
		Result	Qualifier				
1,2-Dibromoethane	1980	1960		ug/kg wet	99.2	80 - 124	
Dibromomethane	1980	1940		ug/kg wet	98.1	80 - 120	
1,2-Dichlorobenzene	1980	1850		ug/kg wet	93.6	80 - 120	
1,3-Dichlorobenzene	1980	1790		ug/kg wet	90.5	80 - 126	
1,4-Dichlorobenzene	1980	1670		ug/kg wet	84.5	77 - 121	
Dichlorodifluoromethane	1980	2240		ug/kg wet	113	75 - 120	
1,1-Dichloroethane	1980	1770		ug/kg wet	89.3	80 - 120	
1,2-Dichloroethane	1980	1940		ug/kg wet	98.0	80 - 120	
1,1-Dichloroethene	1980	1670		ug/kg wet	84.7	66.1 - 125	
cis-1,2-Dichloroethene	1980	1800		ug/kg wet	91.0	75 - 125	
trans-1,2-Dichloroethene	1980	1740		ug/kg wet	87.8	75 - 125	
1,2-Dichloropropane	1980	1850		ug/kg wet	93.7	82 - 125	
1,3-Dichloropropane	1980	1930		ug/kg wet	97.6	75 - 129	
2,2-Dichloropropane	1980	1890		ug/kg wet	95.5	72 - 132	
1,1-Dichloropropene	1980	1780		ug/kg wet	90.2	79 - 126	
cis-1,3-Dichloropropene	1980	1870		ug/kg wet	94.7	80 - 126	
trans-1,3-Dichloropropene	1980	1740		ug/kg wet	87.9	67 - 146	
Ethylbenzene	1980	1730		ug/kg wet	87.7	82 - 123	
Hexachlorobutadiene	1980	2520		ug/kg wet	128	80 - 152	
2-Hexanone	9880	10500		ug/kg wet	106	57 - 120	
Isopropylbenzene	1980	1720		ug/kg wet	87.1	82 - 128	
p-Isopropyltoluene	1980	1870		ug/kg wet	94.8	80 - 120	
4-Methyl-2-pentanone	9880	10100		ug/kg wet	102	52 - 120	
Methyl tert-butyl ether	1980	1990		ug/kg wet	100	75 - 125	
Methylene chloride	1980	1870		ug/kg wet	94.8	75 - 125	
Naphthalene	1980	2120		ug/kg wet	107	80 - 130	
n-Propylbenzene	1980	1780		ug/kg wet	90.0	80 - 120	
Styrene	1980	1860		ug/kg wet	93.9	80 - 123	
1,1,1,2-Tetrachloroethane	1980	1980		ug/kg wet	100	83 - 128	
1,1,2,2-Tetrachloroethane	1980	1810		ug/kg wet	91.6	72 - 135	
Tetrachloroethene	1980	1810		ug/kg wet	91.6	80 - 124	
Toluene	1980	1760		ug/kg wet	88.8	80 - 125	
1,2,3-Trichlorobenzene	1980	2090		ug/kg wet	106	78 - 143	
1,2,4-Trichlorobenzene	1980	2100		ug/kg wet	106	83 - 149	
1,1,1-Trichloroethane	1980	1820		ug/kg wet	91.9	80 - 124	
1,1,2-Trichloroethane	1980	1880		ug/kg wet	94.9	80 - 125	
Trichloroethene	1980	1720		ug/kg wet	86.8	76 - 125	
Trichlorofluoromethane	1980	2160		ug/kg wet	109	56 - 147	
1,2,3-Trichloropropane	1980	1760		ug/kg wet	89.1	67 - 126	
1,2,4-Trimethylbenzene	1980	1770		ug/kg wet	89.7	81 - 134	
1,3,5-Trimethylbenzene	1980	1880		ug/kg wet	95.1	82 - 136	
Vinyl chloride	1980	1120		ug/kg wet	56.9	10 - 140	
o-Xylene	1980	1700		ug/kg wet	86.0	80 - 126	
m,p-Xylene	3950	3560		ug/kg wet	90.0	80 - 120	

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
Dibromofluoromethane	107		70 - 135
1,2-DCA-d4	108		60 - 145
Toluene-d8	105		70 - 140

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Lab Sample ID: 11I0741-BS1

Matrix: Soil

Analysis Batch: 11I0741

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 11I0741\_P

Surrogate	LCS	LCS	
	% Recovery	Qualifier	Limits
4-BFB	99.7		70 - 140

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-95777/1-A

Matrix: Solid

Analysis Batch: 95804

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 95777

Analyte	MB	MB			Dil Fac				
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	
Naphthalene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
2-Methylnaphthalene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
1-Methylnaphthalene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Acenaphthylene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Acenaphthene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Fluorene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Phenanthrene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Anthracene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Fluoranthene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Pyrene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Chrysene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/21/11 08:01	09/21/11 11:21	1
Surrogate	MB	MB				Dil Fac	Prepared	Analyzed	
Terphenyl-d14			% Recovery	Qualifier	Limits		09/21/11 08:01	09/21/11 11:21	1
			83		42 - 151				

Lab Sample ID: LCS 580-95777/2-A

Matrix: Solid

Analysis Batch: 95804

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 95777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	Limits
Naphthalene	1000	937		ug/Kg		94	64 - 129
2-Methylnaphthalene	1000	908		ug/Kg		91	65 - 125
1-Methylnaphthalene	1000	1030		ug/Kg		103	48 - 148
Acenaphthylene	999	923		ug/Kg		92	69 - 129
Acenaphthene	1000	901		ug/Kg		90	65 - 130
Fluorene	1000	843		ug/Kg		84	68 - 128
Phenanthrene	1000	921		ug/Kg		92	65 - 125
Anthracene	1000	924		ug/Kg		92	73 - 123
Fluoranthene	1000	963		ug/Kg		96	61 - 121
Pyrene	1000	984		ug/Kg		98	54 - 134
Benzo[a]anthracene	1000	907		ug/Kg		91	64 - 124
Chrysene	1000	847		ug/Kg		85	71 - 126
Benzo[b]fluoranthene	1000	933		ug/Kg		93	66 - 136

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCS 580-95777/2-A**

**Matrix: Solid**

**Analysis Batch: 95804**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95777**

Analyte	Spike Added	LCS			Unit	D	% Rec	Limits
		Result	Qualifier	LCS				
Benzo[k]fluoranthene	1000	769		ug/Kg		77	63 - 143	
Benzo[a]pyrene	1000	858		ug/Kg		86	68 - 128	
Indeno[1,2,3-cd]pyrene	1000	926		ug/Kg		93	59 - 139	
Dibenz(a,h)anthracene	999	919		ug/Kg		92	57 - 142	
Benzof[g,h,i]perylene	1000	944		ug/Kg		94	57 - 142	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>					
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
Terphenyl-d14		80		42 - 151				

## Method: 8021B - Volatile Organic Compounds (GC)

**Lab Sample ID: MB 580-95847/1-A**

**Matrix: Solid**

**Analysis Batch: 95862**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95847**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared		Dil Fac
							Prepared	Analyzed	
Benzene	ND		0.020		mg/Kg		09/21/11 15:12	09/21/11 19:27	1
Toluene	ND		0.050		mg/Kg		09/21/11 15:12	09/21/11 19:27	1
Ethylbenzene	ND		0.050		mg/Kg		09/21/11 15:12	09/21/11 19:27	1
m-Xylene & p-Xylene	ND		0.10		mg/Kg		09/21/11 15:12	09/21/11 19:27	1
o-Xylene	ND		0.10		mg/Kg		09/21/11 15:12	09/21/11 19:27	1
Xylenes, Total	ND		0.10		mg/Kg		09/21/11 15:12	09/21/11 19:27	1
<b>Surrogate</b>		<b>MB</b>	<b>MB</b>						
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene		112		50 - 150			09/21/11 15:12	09/21/11 19:27	1
4-Bromofluorobenzene (Sur)		96		75 - 135			09/21/11 15:12	09/21/11 19:27	1

**Lab Sample ID: LCS 580-95847/4-A**

**Matrix: Solid**

**Analysis Batch: 95862**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95847**

Analyte	Spike Added	LCS			Unit	D	% Rec	Limits
		Result	Qualifier	LCS				
Benzene	0.800	0.832		mg/Kg		104	75 - 125	
Toluene	0.800	0.800		mg/Kg		100	75 - 120	
Ethylbenzene	0.800	0.796		mg/Kg		100	80 - 120	
m-Xylene & p-Xylene	1.60	1.53		mg/Kg		96	75 - 120	
o-Xylene	0.800	0.764		mg/Kg		96	75 - 120	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>					
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
a,a,a-Trifluorotoluene		108		50 - 150				
4-Bromofluorobenzene (Sur)		98		75 - 135				

**Lab Sample ID: LCSD 580-95847/5-A**

**Matrix: Solid**

**Analysis Batch: 95862**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 95847**

Analyte	Spike Added	LCSD			Unit	D	% Rec	RPD
		Result	Qualifier	LCSD				
Benzene	0.800	0.868		mg/Kg		109	75 - 125	4
Toluene	0.800	0.832		mg/Kg		104	75 - 120	4

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 580-95847/5-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 95862				Prep Batch: 95847						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit	
Ethylbenzene	0.800	0.828		mg/Kg	104	80 - 120	4	20		
m-Xylene & p-Xylene	1.60	1.59		mg/Kg	99	75 - 120	4	20		
o-Xylene	0.800	0.792		mg/Kg	99	75 - 120	4	20		
Surrogate	LCSD % Recovery	LCSD Qualifier	LCSD Limits							
a,a,a-Trifluorotoluene	111		50 - 150							
4-Bromofluorobenzene (Surr)	98		75 - 135							

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-95847/1-A				Client Sample ID: Method Blank						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 95861				Prep Batch: 95847						
Analyte	MB Result	MB Qualifier	MB RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline	ND		4.0		mg/Kg		09/21/11 15:12	09/21/11 19:27		1
Surrogate	MB % Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	96		50 - 150				09/21/11 15:12	09/21/11 19:27		1
Trifluorotoluene (Surr)	105		50 - 150				09/21/11 15:12	09/21/11 19:27		1

## Lab Sample ID: LCS 580-95847/2-A

Matrix: Solid				Client Sample ID: Lab Control Sample						
Analysis Batch: 95861				Prep Type: Total/NA						
Surrogate				Prep Batch: 95847						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits			
Gasoline	40.0	39.1		mg/Kg	98	68 - 120				
Surrogate	LCSD % Recovery	LCSD Qualifier	LCSD Limits							
4-Bromofluorobenzene (Surr)	105		50 - 150							
Trifluorotoluene (Surr)	105		50 - 150							

## Lab Sample ID: LCSD 580-95847/3-A

Matrix: Solid				Client Sample ID: Lab Control Sample Dup						
Analysis Batch: 95861				Prep Type: Total/NA						
Surrogate				Prep Batch: 95847						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit	
Gasoline	40.0	39.2		mg/Kg	98	68 - 120	0	25		
Surrogate	LCSD % Recovery	LCSD Qualifier	LCSD Limits							
4-Bromofluorobenzene (Surr)	102		50 - 150							
Trifluorotoluene (Surr)	106		50 - 150							

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID:** MB 580-95756/1-A

**Matrix:** Solid

**Analysis Batch:** 95830

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 95756

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
PCB-1016	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1
PCB-1221	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1
PCB-1232	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1
PCB-1242	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1
PCB-1248	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1
PCB-1254	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1
PCB-1260	ND		0.010		mg/Kg		09/20/11 15:18	09/21/11 12:57		1

Surrogate	MB		Limits	Prepared		Analyzed	Dil Fac
	% Recovery	Qualifier		Prepared	Analyzed		
Tetrachloro-m-xylene	95		45 - 155	09/20/11 15:18	09/21/11 12:57		1
DCB Decachlorobiphenyl	72		60 - 125	09/20/11 15:18	09/21/11 12:57		1

**Lab Sample ID:** LCS 580-95756/2-A

**Matrix:** Solid

**Analysis Batch:** 95830

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95756

Analyte	Spike		Result	Qualifier	Unit	D	% Rec.		Limits
	Added	Result	% Rec.	Limits					
PCB-1016	0.100	0.0849	85	40 - 140	mg/Kg				
PCB-1260	0.100	0.0810	81	60 - 130	mg/Kg				

Surrogate	LCS		Result	Qualifier	Unit	D	% Rec.		Limits
	% Recovery	Qualifier	% Rec.	Limits					
Tetrachloro-m-xylene	93		45 - 155						
DCB Decachlorobiphenyl	67		60 - 125						

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID:** MB 580-95786/1-A

**Matrix:** Solid

**Analysis Batch:** 95823

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 95786

Analyte	MB		Result	Qualifier	RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed		
#2 Diesel (C10-C24)	ND				25		mg/Kg		09/21/11 09:06	09/21/11 14:01		1
Motor Oil (>C24-C36)	ND				50		mg/Kg		09/21/11 09:06	09/21/11 14:01		1

Surrogate	MB		Result	Qualifier	Limits	D	% Rec.		Limits
	% Recovery	Qualifier	% Rec.	Limits					
o-Terphenyl	72		50 - 150						

**Lab Sample ID:** LCS 580-95786/2-A

**Matrix:** Solid

**Analysis Batch:** 95823

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95786

Analyte	Spike		Result	Qualifier	Unit	D	% Rec.		Limits
	Added	Result	% Rec.	Limits					
#2 Diesel (C10-C24)	500	464	93	70 - 125	mg/Kg				
Motor Oil (>C24-C36)	500	509	102	64 - 127	mg/Kg				

Surrogate	LCS		Result	Qualifier	Unit	D	% Rec.		Limits
	% Recovery	Qualifier	% Rec.	Limits					
o-Terphenyl	79		50 - 150						

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 580-95746/21-A**

**Matrix: Solid**

**Analysis Batch: 95897**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95746**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		09/20/11 14:44	09/21/11 18:57	1
Lead	ND		1.5		mg/Kg		09/20/11 14:44	09/21/11 18:57	1
Cadmium	ND		0.50		mg/Kg		09/20/11 14:44	09/21/11 18:57	1
Chromium	ND		1.3		mg/Kg		09/20/11 14:44	09/21/11 18:57	1
Copper	ND		1.0		mg/Kg		09/20/11 14:44	09/21/11 18:57	1
Silver	ND		1.0		mg/Kg		09/20/11 14:44	09/21/11 18:57	1

**Lab Sample ID: MB 580-95746/21-A**

**Matrix: Solid**

**Analysis Batch: 95936**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 95746**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		2.0		mg/Kg		09/20/11 14:44	09/22/11 14:20	1

**Lab Sample ID: LCS 580-95746/22-A**

**Matrix: Solid**

**Analysis Batch: 95897**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95746**

**Spike**

**LCS LCS**

**% Rec.**

Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits
Arsenic	200	193		mg/Kg		97	80 - 120
Lead	50.0	50.1		mg/Kg		100	80 - 120
Cadmium	5.00	4.99		mg/Kg		100	80 - 120
Chromium	20.0	20.1		mg/Kg		101	80 - 120
Copper	25.0	24.9		mg/Kg		99	80 - 120
Silver	30.0	30.0		mg/Kg		100	75 - 120

**Lab Sample ID: LCS 580-95746/22-A**

**Matrix: Solid**

**Analysis Batch: 95936**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 95746**

**Spike**

**LCS LCS**

**% Rec.**

Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits
Zinc	50.0	54.0		mg/Kg		108	80 - 120

**Lab Sample ID: LCSD 580-95746/23-A**

**Matrix: Solid**

**Analysis Batch: 95897**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 95746**

**Spike**

**LCSD LCSD**

**% Rec.**

Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Arsenic	200	201		mg/Kg		100	80 - 120	4	20
Lead	50.0	51.8		mg/Kg		104	80 - 120	3	20
Cadmium	5.00	5.16		mg/Kg		103	80 - 120	4	20
Chromium	20.0	20.5		mg/Kg		102	80 - 120	2	20
Copper	25.0	25.4		mg/Kg		102	80 - 120	2	20
Silver	30.0	30.6		mg/Kg		102	75 - 120	2	20

**Lab Sample ID: LCSD 580-95746/23-A**

**Matrix: Solid**

**Analysis Batch: 95936**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 95746**

**Spike**

**LCSD LCSD**

**% Rec.**

Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Zinc	50.0	53.0		mg/Kg		106	80 - 120	2	20

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID:** MB 580-95767/18-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017		mg/Kg		09/21/11 07:45	09/21/11 10:47	1

**Lab Sample ID:** LCS 580-95767/19-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec.	Limits
Mercury	0.167	0.154		mg/Kg		93	80 - 120

**Lab Sample ID:** LCSD 580-95767/20-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	RPD	Limit	
Mercury	0.167	0.155		mg/Kg		93	80 - 120	1	20

**Lab Sample ID:** LCSSRM 580-95767/21-A

**Matrix:** Solid

**Analysis Batch:** 95835

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 95767

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	% Rec.	Limits
Mercury	16.3	17.1		mg/Kg		105	51.1 - 148.

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## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: TB-5-082611**

**Lab Sample ID: 580-28309-2**

Matrix: Solid

Date Collected: 08/26/11 10:49

Date Received: 08/26/11 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	5035			94851	09/08/11 15:24	EZ	TAL SEA
Total/NA	Analysis	8260B		1	94924	09/08/11 16:43		TAL SEA
Total/NA	Prep	5035	RA		94851	09/08/11 15:24	EZ	TAL SEA
Total/NA	Analysis	8260B	RA	1	94925	09/08/11 16:55		TAL SEA
Total/NA	Prep	5035	RA2		94851	09/08/11 15:24	EZ	TAL SEA
Total/NA	Analysis	8260B	RA2	1	96666	10/02/11 20:15	SK	TAL SEA

**Client Sample ID: 082611-FB6-1.1**

**Lab Sample ID: 580-28309-3**

Matrix: Solid

Date Collected: 08/26/11 08:00

Date Received: 08/26/11 16:20

Percent Solids: 72.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 20:24	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 14:58	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082611-FB6-11.6**

**Lab Sample ID: 580-28309-4**

Matrix: Solid

Date Collected: 08/26/11 08:20

Date Received: 08/26/11 16:20

Percent Solids: 62.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 14:36	AP	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 18:13	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 18:18	BT	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:03	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 20:31	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:12	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082611-FB8-11.6**

**Lab Sample ID: 580-28309-7**

Matrix: Solid

Date Collected: 08/26/11 10:05

Date Received: 08/26/11 16:20

Percent Solids: 54.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 14:55	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 03:27	JMB	TAL SEA

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB8-11.6**

Date Collected: 08/26/11 10:05  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-7**

Matrix: Solid  
Percent Solids: 54.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	95862	09/22/11 03:27	JMB	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 19:38	KKW	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:09	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 20:37	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:16	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082611-FB7-11.8**

Date Collected: 08/26/11 11:20  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-10**

Matrix: Solid  
Percent Solids: 63.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 15:15	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 03:52	JMB	TAL SEA
Total/NA	Analysis	8021B		1	95862	09/22/11 03:52	JMB	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 20:05	KKW	TAL SEA
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:10	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 20:44	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:21	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Client Sample ID: 082611-FB9-12.0**

Date Collected: 08/26/11 13:25  
Date Received: 08/26/11 16:20

**Lab Sample ID: 580-28309-13**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.07	1110741_P	08/26/11 13:25	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	1110741	09/26/11 14:38	ECF	TAL PTL
Total/NA	Prep	3550B			95777	09/21/11 08:01	GH	TAL SEA
Total/NA	Analysis	8270C SIM		1	95804	09/21/11 15:34	AP	TAL SEA
Total/NA	Prep	5035			95847	09/21/11 15:12	JMB	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	95861	09/22/11 04:17	JMB	TAL SEA
Total/NA	Prep	3550B			95786	09/21/11 09:06	GH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	95823	09/21/11 20:34	KKW	TAL SEA
Total/NA	Prep	3550B			95756	09/20/11 15:18	GH	TAL SEA
Total/NA	Analysis	8082		1	95830	09/21/11 18:32	BT	TAL SEA

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

**Client Sample ID: 082611-FB9-12.0**

**Date Collected: 08/26/11 13:25**

**Date Received: 08/26/11 16:20**

**Lab Sample ID: 580-28309-13**

**Matrix: Solid**

**Percent Solids: 61.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			95767	09/21/11 07:45	ZF	TAL SEA
Total/NA	Analysis	7471A		1	95835	09/21/11 11:12	FCW	TAL SEA
Total/NA	Prep	3050B			95746	09/20/11 14:44	ZF	TAL SEA
Total/NA	Analysis	6010B		1	95897	09/21/11 20:50	PAB	TAL SEA
Total/NA	Analysis	6010B		1	95936	09/22/11 15:25	PAB	TAL SEA
Total/NA	Analysis	Moisture		1	95763	09/20/11 15:39	JP	TAL SEA

**Laboratory References:**

TAL PTL = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503) 906-9200

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

## Certification Summary

Client: Farallon Consulting LLC  
 Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Sample Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-28309-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-28309-2	TB-5-082611	Solid	08/26/11 10:49	08/26/11 16:20
580-28309-3	082611-FB6-1.1	Solid	08/26/11 08:00	08/26/11 16:20
580-28309-4	082611-FB6-11.6	Solid	08/26/11 08:20	08/26/11 16:20
580-28309-7	082611-FB8-11.6	Solid	08/26/11 10:05	08/26/11 16:20
580-28309-10	082611-FB7-11.8	Solid	08/26/11 11:20	08/26/11 16:20
580-28309-13	082611-FB9-12.0	Solid	08/26/11 13:25	08/26/11 16:20

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-28309-2

**Login Number: 28309**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Gamble, Cathy**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle

5755 8th Street East

Tacoma, WA 98424

Tel: (253)922-2310

TestAmerica Job ID: 580-29132-1

Client Project/Site: Sno Pac

For:

Farallon Consulting LLC

975 5th Avenue NW

Suite 100

Issaquah, Washington 98027

Attn: Donald Lance

Kristine D. Allen

Authorized for release by:

10/12/2011 05:34:05 PM

Kristine Allen

Project Manager I

[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

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results through

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Expert

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[www.testamericainc.com](http://www.testamericainc.com)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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## Definitions/Glossary

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

### Qualifiers

#### GCMS Volatiles

Qualifier	Qualifier Description
L5	Analyte recovery outside of specified criteria. Individual analyte criteria exceedences allowed for multi-component analyses without disqualification of data per NELAC Standard, DOD QSM and/or AFCEE QAPP.

#### Semivolatiles

Qualifier	Qualifier Description
ID3	Due to matrix unable to resolve Benzofluoranthene isomers. Value reported only in Benzo(b) category represents Total Benzo(b+k)fluoranthene.

#### Fuels

Qualifier	Qualifier Description
Q13	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
Q12	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.
BQC1	Reported for batch QC purposes only. See original analysis for final result.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5A-8.4**

Date Collected: 10/05/11 09:00

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-1**

Matrix: Solid

Percent Solids: 60.1

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		9230		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Benzene	ND		73.9		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Bromobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Bromochloromethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Bromodichloromethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Bromoform	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Bromomethane	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
2-Butanone (MEK)	ND		3690		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
n-Butylbenzene	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
sec-Butylbenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
tert-Butylbenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Carbon disulfide	ND		3690		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Carbon tetrachloride	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Chlorobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Chloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Chloroform	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Chloromethane	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
2-Chlorotoluene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
4-Chlorotoluene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2-Dibromo-3-chloropropane	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Dibromochloromethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2-Dibromoethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Dibromomethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2-Dichlorobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,3-Dichlorobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,4-Dichlorobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Dichlorodifluoromethane	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,1-Dichloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2-Dichloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,1-Dichloroethene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
cis-1,2-Dichloroethene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
trans-1,2-Dichloroethene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2-Dichloropropane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,3-Dichloropropane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
2,2-Dichloropropane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,1-Dichloropropene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
cis-1,3-Dichloropropene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
trans-1,3-Dichloropropene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Ethylbenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Hexachlorobutadiene	ND		1480		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
2-Hexanone	ND		3690		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Isopropylbenzene	ND		739		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
p-Isopropyltoluene	ND		739		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
4-Methyl-2-pentanone	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Methyl tert-butyl ether	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Methylene chloride	ND		1850		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Naphthalene	ND		739		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
n-Propylbenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Styrene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,1,1,2-Tetrachloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5A-8.4**

**Lab Sample ID: 580-29132-1**

Date Collected: 10/05/11 09:00

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 60.1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Tetrachloroethene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Toluene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2,3-Trichlorobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2,4-Trichlorobenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,1,1-Trichloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,1,2-Trichloroethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Trichloroethene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Trichlorofluoromethane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2,3-Trichloropropane	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,2,4-Trimethylbenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
1,3,5-Trimethylbenzene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Vinyl chloride	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
o-Xylene	ND		369		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
m,p-Xylene	ND		739		ug/kg dry	⊗	10/05/11 09:00	10/11/11 16:08	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		70 - 135				10/05/11 09:00	10/11/11 16:08	100
1,2-DCA-d4	113		60 - 145				10/05/11 09:00	10/11/11 16:08	100
Toluene-d8	105		70 - 140				10/05/11 09:00	10/11/11 16:08	100
4-BFB	102		70 - 140				10/05/11 09:00	10/11/11 16:08	100

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	60.1		0.0100		% by Weight	⊗	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5A-18.0**

**Lab Sample ID: 580-29132-3**

Date Collected: 10/05/11 09:20  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 81.8

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		5710		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Benzene	ND		45.7		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Bromobenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Bromochloromethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Bromodichloromethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Bromoform	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Bromomethane	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
2-Butanone (MEK)	ND		2290		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
n-Butylbenzene	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
sec-Butylbenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
tert-Butylbenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Carbon disulfide	ND		2290		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Carbon tetrachloride	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Chlorobenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Chloroethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Chloroform	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Chloromethane	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
2-Chlorotoluene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
4-Chlorotoluene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,2-Dibromo-3-chloropropane	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Dibromochloromethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,2-Dibromoethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Dibromomethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,2-Dichlorobenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,3-Dichlorobenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,4-Dichlorobenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Dichlorodifluoromethane	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,1-Dichloroethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,2-Dichloroethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,1-Dichloroethene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
cis-1,2-Dichloroethene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
trans-1,2-Dichloroethene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,2-Dichloropropane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,3-Dichloropropane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
2,2-Dichloropropane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,1-Dichloropropene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
cis-1,3-Dichloropropene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
trans-1,3-Dichloropropene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Ethylbenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Hexachlorobutadiene	ND		914		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
2-Hexanone	ND		2290		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Isopropylbenzene	ND		457		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
p-Isopropyltoluene	ND		457		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
4-Methyl-2-pentanone	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Methyl tert-butyl ether	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Methylene chloride	ND		1140		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Naphthalene	ND		457		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
n-Propylbenzene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
Styrene	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100
1,1,1,2-Tetrachloroethane	ND		229		ug/kg dry	⊗	10/05/11 09:20	10/11/11 16:30	100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5A-18.0**

**Lab Sample ID: 580-29132-3**

Date Collected: 10/05/11 09:20  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 81.8

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
Tetrachloroethene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
Toluene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,2,3-Trichlorobenzene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,2,4-Trichlorobenzene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,1,1-Trichloroethane	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,1,2-Trichloroethane	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
Trichloroethene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
Trichlorofluoromethane	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,2,3-Trichloropropane	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,2,4-Trimethylbenzene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
1,3,5-Trimethylbenzene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
Vinyl chloride	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
o-Xylene	ND		229		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
m,p-Xylene	ND		457		ug/kg dry	☀	10/05/11 09:20	10/11/11 16:30	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.4		70 - 135				10/05/11 09:20	10/11/11 16:30	100
1,2-DCA-d4	111		60 - 145				10/05/11 09:20	10/11/11 16:30	100
Toluene-d8	106		70 - 140				10/05/11 09:20	10/11/11 16:30	100
4-BFB	99.4		70 - 140				10/05/11 09:20	10/11/11 16:30	100

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		40.1		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Aroclor 1221	ND		80.7		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Aroclor 1232	ND		40.1		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Aroclor 1242	ND		40.1		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Aroclor 1248	ND		40.1		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Aroclor 1254	ND		40.1		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Aroclor 1260	ND		40.1		ug/kg dry	☀	10/10/11 17:33	10/12/11 13:15	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl	92.0		16 - 149				10/10/11 17:33	10/12/11 13:15	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Acenaphthylene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Anthracene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Benzo (a) anthracene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Benzo (a) pyrene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
<b>Benzo (b) fluoranthene</b>	<b>19.4</b>		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Benzo (ghi) perylene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Benzo (k) fluoranthene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
<b>Chrysene</b>	<b>35.2</b>		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Dibenzo (a,h) anthracene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
<b>Fluoranthene</b>	<b>27.1</b>		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Fluorene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Indeno (1,2,3-cd) pyrene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00
Naphthalene	ND		16.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 10:55	1.00

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5A-18.0**

**Lab Sample ID: 580-29132-3**

Date Collected: 10/05/11 09:20

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 81.8

1

2

3

4

5

6

7

8

9

10

**Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		16.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 10:55	1.00
Pyrene	27.4		16.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 10:55	1.00
<b>Surrogate</b>									
Fluorene-d10									
83.5									
Pyrene-d10									
98.1									
Benzo (a) pyrene-d12									
88.9									
<b>Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method</b>									
Analyte									
Diesel Range Organics									
55.5									
Q12									
Residual Range/Heavy Oil									
Organics									
156									
<b>Surrogate</b>									
1-Chlorooctadecane									
59.8									
Limits									
50 - 150									
<b>Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80</b>									
Analyte									
% Solids									
81.8									
Result									
Qualifier									
0.0100									
RL									
MDL									
Unit									
% by Weight									
D									
Prepared									
10/10/11 15:36									
Analyzed									
10/12/11 07:30									
Dil Fac									
1.00									

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: TB-1-100511**

Date Collected: 10/05/11 09:35

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-5**

Matrix: Solid

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		2370		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Benzene	ND		18.9		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Bromobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Bromochloromethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Bromodichloromethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Bromoform	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Bromomethane	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
2-Butanone (MEK)	ND		946		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
n-Butylbenzene	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
sec-Butylbenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
tert-Butylbenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Carbon disulfide	ND		946		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Carbon tetrachloride	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Chlorobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Chloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Chloroform	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Chloromethane	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
2-Chlorotoluene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
4-Chlorotoluene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,2-Dibromo-3-chloropropane	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Dibromochloromethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,2-Dibromoethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Dibromomethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,2-Dichlorobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,3-Dichlorobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,4-Dichlorobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Dichlorodifluoromethane	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,1-Dichloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,2-Dichloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,1-Dichloroethene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
cis-1,2-Dichloroethene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
trans-1,2-Dichloroethene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,2-Dichloropropane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,3-Dichloropropane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
2,2-Dichloropropane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,1-Dichloropropene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
cis-1,3-Dichloropropene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
trans-1,3-Dichloropropene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Ethylbenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Hexachlorobutadiene	ND		378		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
2-Hexanone	ND		946		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Isopropylbenzene	ND		189		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
p-Isopropyltoluene	ND		189		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
4-Methyl-2-pentanone	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Methyl tert-butyl ether	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Methylene chloride	ND		473		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Naphthalene	ND		189		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
n-Propylbenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
Styrene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	
1,1,1,2-Tetrachloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: TB-1-100511**  
**Date Collected: 10/05/11 09:35**  
**Date Received: 10/06/11 16:10**

**Lab Sample ID: 580-29132-5**  
**Matrix: Solid**

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
Tetrachloroethene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
Toluene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,2,3-Trichlorobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,2,4-Trichlorobenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,1,1-Trichloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,1,2-Trichloroethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
Trichloroethene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
Trichlorofluoromethane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,2,3-Trichloropropane	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,2,4-Trimethylbenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
1,3,5-Trimethylbenzene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
Vinyl chloride	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
o-Xylene	ND		94.6		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
m,p-Xylene	ND		189		ug/kg wet	10/05/11 09:35	10/11/11 15:46	100	100
Surrogate	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Dibromofluoromethane	102		70 - 135			10/05/11 09:35	10/11/11 15:46	100	
1,2-DCA-d4	114		60 - 145			10/05/11 09:35	10/11/11 15:46	100	
Toluene-d8	105		70 - 140			10/05/11 09:35	10/11/11 15:46	100	
4-BFB	99.2		70 - 140			10/05/11 09:35	10/11/11 15:46	100	

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5B-18.0**

**Lab Sample ID: 580-29132-6**

Date Collected: 10/05/11 09:50  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 64.3

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		9280		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Benzene	ND		74.3		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Bromobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Bromochloromethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Bromodichloromethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Bromoform	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Bromomethane	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
2-Butanone (MEK)	ND		3710		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
n-Butylbenzene	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
sec-Butylbenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
tert-Butylbenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Carbon disulfide	ND		3710		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Carbon tetrachloride	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Chlorobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Chloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Chloroform	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Chloromethane	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
2-Chlorotoluene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
4-Chlorotoluene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2-Dibromo-3-chloropropane	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Dibromochloromethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2-Dibromoethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Dibromomethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2-Dichlorobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,3-Dichlorobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,4-Dichlorobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Dichlorodifluoromethane	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,1-Dichloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2-Dichloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,1-Dichloroethene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
cis-1,2-Dichloroethene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
trans-1,2-Dichloroethene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2-Dichloropropane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,3-Dichloropropane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
2,2-Dichloropropane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,1-Dichloropropene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
cis-1,3-Dichloropropene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
trans-1,3-Dichloropropene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Ethylbenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Hexachlorobutadiene	ND		1490		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
2-Hexanone	ND		3710		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Isopropylbenzene	ND		743		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
p-Isopropyltoluene	ND		743		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
4-Methyl-2-pentanone	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Methyl tert-butyl ether	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Methylene chloride	ND		1860		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Naphthalene	ND		743		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
n-Propylbenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Styrene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,1,1,2-Tetrachloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5B-18.0**

**Lab Sample ID: 580-29132-6**

Matrix: Solid

Percent Solids: 64.3

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Tetrachloroethene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Toluene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2,3-Trichlorobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2,4-Trichlorobenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,1,1-Trichloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,1,2-Trichloroethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Trichloroethene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Trichlorofluoromethane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2,3-Trichloropropane	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,2,4-Trimethylbenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
1,3,5-Trimethylbenzene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
Vinyl chloride	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
o-Xylene	ND		371		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
m,p-Xylene	ND		743		ug/kg dry	⊗	10/05/11 09:50	10/11/11 16:52	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	101		70 - 135				10/05/11 09:50	10/11/11 16:52	100
1,2-DCA-d4	112		60 - 145				10/05/11 09:50	10/11/11 16:52	100
Toluene-d8	104		70 - 140				10/05/11 09:50	10/11/11 16:52	100
4-BFB	100		70 - 140				10/05/11 09:50	10/11/11 16:52	100

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	64.3		0.0100		% by Weight	⊗	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5C-10.2**

**Lab Sample ID: 580-29132-7**

Date Collected: 10/05/11 10:40  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 59.3

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		12700		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Benzene	ND		102		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Bromobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Bromochloromethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Bromodichloromethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Bromoform	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Bromomethane	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
2-Butanone (MEK)	ND		5090		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
n-Butylbenzene	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
sec-Butylbenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
tert-Butylbenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Carbon disulfide	ND		5090		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Carbon tetrachloride	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Chlorobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Chloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Chloroform	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Chloromethane	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
2-Chlorotoluene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
4-Chlorotoluene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2-Dibromo-3-chloropropane	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Dibromochloromethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2-Dibromoethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Dibromomethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2-Dichlorobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,3-Dichlorobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,4-Dichlorobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Dichlorodifluoromethane	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,1-Dichloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2-Dichloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,1-Dichloroethene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
cis-1,2-Dichloroethene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
trans-1,2-Dichloroethene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2-Dichloropropane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,3-Dichloropropane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
2,2-Dichloropropane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,1-Dichloropropene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
cis-1,3-Dichloropropene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
trans-1,3-Dichloropropene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Ethylbenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Hexachlorobutadiene	ND		2040		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
2-Hexanone	ND		5090		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Isopropylbenzene	ND		1020		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
p-Isopropyltoluene	ND		1020		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
4-Methyl-2-pentanone	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Methyl tert-butyl ether	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Methylene chloride	ND		2550		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
<b>Naphthalene</b>	<b>54900</b>		1020		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
n-Propylbenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Styrene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,1,1,2-Tetrachloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5C-10.2**

**Lab Sample ID: 580-29132-7**

Date Collected: 10/05/11 10:40

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 59.3

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Tetrachloroethene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Toluene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2,3-Trichlorobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2,4-Trichlorobenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,1,1-Trichloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,1,2-Trichloroethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Trichloroethene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Trichlorofluoromethane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2,3-Trichloropropane	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,2,4-Trimethylbenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
1,3,5-Trimethylbenzene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Vinyl chloride	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
o-Xylene	ND		509		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
m,p-Xylene	ND		1020		ug/kg dry	⊗	10/05/11 10:40	10/11/11 17:14	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	96.9		70 - 135				10/05/11 10:40	10/11/11 17:14	100
1,2-DCA-d4	110		60 - 145				10/05/11 10:40	10/11/11 17:14	100
Toluene-d8	104		70 - 140				10/05/11 10:40	10/11/11 17:14	100
4-BFB	100		70 - 140				10/05/11 10:40	10/11/11 17:14	100

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	59.3		0.0100		% by Weight	⊗	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5C-14.8**

Date Collected: 10/05/11 11:00

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-8**

Matrix: Solid

Percent Solids: 55.5

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		14600		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Benzene	ND		117		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Bromobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Bromochloromethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Bromodichloromethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Bromoform	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Bromomethane	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
2-Butanone (MEK)	ND		5840		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
n-Butylbenzene	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
sec-Butylbenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
tert-Butylbenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Carbon disulfide	ND		5840		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Carbon tetrachloride	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Chlorobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Chloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Chloroform	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Chloromethane	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
2-Chlorotoluene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
4-Chlorotoluene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2-Dibromo-3-chloropropane	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Dibromochloromethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2-Dibromoethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Dibromomethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2-Dichlorobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,3-Dichlorobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,4-Dichlorobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Dichlorodifluoromethane	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,1-Dichloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2-Dichloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,1-Dichloroethene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
cis-1,2-Dichloroethene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
trans-1,2-Dichloroethene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2-Dichloropropane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,3-Dichloropropane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
2,2-Dichloropropane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,1-Dichloropropene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
cis-1,3-Dichloropropene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
trans-1,3-Dichloropropene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Ethylbenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Hexachlorobutadiene	ND		2340		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
2-Hexanone	ND		5840		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Isopropylbenzene	ND		1170		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
p-Isopropyltoluene	ND		1170		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
4-Methyl-2-pentanone	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Methyl tert-butyl ether	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Methylene chloride	ND		2920		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
<b>Naphthalene</b>	<b>69800</b>		1170		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
n-Propylbenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Styrene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,1,1,2-Tetrachloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5C-14.8**

**Lab Sample ID: 580-29132-8**

Date Collected: 10/05/11 11:00

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 55.5

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Tetrachloroethene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Toluene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2,3-Trichlorobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2,4-Trichlorobenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,1,1-Trichloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,1,2-Trichloroethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Trichloroethene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Trichlorofluoromethane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2,3-Trichloropropane	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,2,4-Trimethylbenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
1,3,5-Trimethylbenzene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Vinyl chloride	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
o-Xylene	ND		584		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
m,p-Xylene	ND		1170		ug/kg dry	⊗	10/05/11 11:00	10/11/11 17:36	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.8		70 - 135				10/05/11 11:00	10/11/11 17:36	100
1,2-DCA-d4	111		60 - 145				10/05/11 11:00	10/11/11 17:36	100
Toluene-d8	107		70 - 140				10/05/11 11:00	10/11/11 17:36	100
4-BFB	101		70 - 140				10/05/11 11:00	10/11/11 17:36	100

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	55.5		0.0100		% by Weight	⊗	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB6A-11.5**

Date Collected: 10/05/11 11:20  
Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-10**

Matrix: Solid  
Percent Solids: 58

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		56.5		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
Aroclor 1221	ND		114		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
Aroclor 1232	ND		56.5		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
Aroclor 1242	ND		56.5		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
Aroclor 1248	ND		56.5		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
Aroclor 1254	ND		56.5		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
Aroclor 1260	ND		56.5		ug/kg dry	⊗	10/10/11 17:33	10/12/11 13:38	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl		83.8		16 - 149			10/10/11 17:33	10/12/11 13:38	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Acenaphthylene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Anthracene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Benzo (a) anthracene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Benzo (a) pyrene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Benzo (b) fluoranthene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Benzo (ghi) perylene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Benzo (k) fluoranthene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Chrysene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Dibenzo (a,h) anthracene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Fluoranthene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Fluorene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Indeno (1,2,3-cd) pyrene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Naphthalene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Phenanthrene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
Pyrene	ND		23.1		ug/kg dry	⊗	10/11/11 07:02	10/12/11 11:33	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Fluorene-d10		73.5		24 - 125			10/11/11 07:02	10/12/11 11:33	1.00
Pyrene-d10		94.7		41 - 141			10/11/11 07:02	10/12/11 11:33	1.00
Benzo (a) pyrene-d12		68.9		38 - 143			10/11/11 07:02	10/12/11 11:33	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		21.5		mg/kg dry	⊗	10/10/11 18:44	10/11/11 13:24	1.00
Residual Range/Heavy Oil Organics	112	Q13		42.9	mg/kg dry	⊗	10/10/11 18:44	10/11/11 13:24	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctadecane		78.7		50 - 150			10/10/11 18:44	10/11/11 13:24	1.00

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	58.0		0.0100		% by Weight	—	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB8A-11.7**

Date Collected: 10/05/11 12:50  
Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-12**

Matrix: Solid  
Percent Solids: 45.4

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		127		ug/kg dry	⊗	10/05/11 12:50	10/11/11 17:58	100
Toluene	ND		318		ug/kg dry	⊗	10/05/11 12:50	10/11/11 17:58	100
Ethylbenzene	ND		318		ug/kg dry	⊗	10/05/11 12:50	10/11/11 17:58	100
o-Xylene	ND		636		ug/kg dry	⊗	10/05/11 12:50	10/11/11 17:58	100
m,p-Xylene	ND		636		ug/kg dry	⊗	10/05/11 12:50	10/11/11 17:58	100
Xylenes (total)	ND		636		ug/kg dry	⊗	10/05/11 12:50	10/11/11 17:58	100
<b>Surrogate</b>		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>Dibromofluoromethane</i>		97.3		70 - 135			10/05/11 12:50	10/11/11 17:58	100
<i>1,2-DCA-d4</i>		110		60 - 145			10/05/11 12:50	10/11/11 17:58	100
<i>Toluene-d8</i>		105		70 - 140			10/05/11 12:50	10/11/11 17:58	100
<i>4-BFB</i>		98.2		70 - 140			10/05/11 12:50	10/11/11 17:58	100

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Acenaphthylene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Anthracene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Benzo (a) anthracene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Benzo (a) pyrene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
<b>Benzo (b) fluoranthene</b>	<b>31.8</b>	<b>ID3</b>	29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Benzo (ghi) perylene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Benzo (k) fluoranthene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Chrysene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Dibenzo (a,h) anthracene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Fluoranthene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Fluorene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Indeno (1,2,3-cd) pyrene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Naphthalene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Phenanthrene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
Pyrene	ND		29.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:03	1.00
<b>Surrogate</b>		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>Fluorene-d10</i>		82.1		24 - 125			10/11/11 07:02	10/12/11 12:03	1.00
<i>Pyrene-d10</i>		112		41 - 141			10/11/11 07:02	10/12/11 12:03	1.00
<i>Benzo (a) pyrene-d12</i>		73.3		38 - 143			10/11/11 07:02	10/12/11 12:03	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		27.3		mg/kg dry	⊗	10/10/11 18:44	10/11/11 18:51	1.00
<b>Residual Range/Heavy Oil Organics</b>	<b>116</b>	<b>Q13</b>	54.5		mg/kg dry	⊗	10/10/11 18:44	10/11/11 18:51	1.00
<b>Surrogate</b>	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	60.1		50 - 150				10/10/11 18:44	10/11/11 18:51	1.00

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		25.4		mg/kg dry	⊗	10/05/11 12:50	10/11/11 12:28	50.0
<b>Surrogate</b>	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-TFT (FID)	126		50 - 150				10/05/11 12:50	10/11/11 12:28	50.0

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB8A-11.7**

Date Collected: 10/05/11 12:50  
Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-12**

Matrix: Solid

Percent Solids: 45.4

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	45.4		0.0100		% by Weight		10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB7A-11.8**

Date Collected: 10/05/11 13:30

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-13**

Matrix: Solid

Percent Solids: 59.9

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		90.7		ug/kg dry	⊗	10/05/11 13:30	10/11/11 18:20	100
Toluene	ND		227		ug/kg dry	⊗	10/05/11 13:30	10/11/11 18:20	100
Ethylbenzene	ND		227		ug/kg dry	⊗	10/05/11 13:30	10/11/11 18:20	100
o-Xylene	ND		454		ug/kg dry	⊗	10/05/11 13:30	10/11/11 18:20	100
m,p-Xylene	ND		454		ug/kg dry	⊗	10/05/11 13:30	10/11/11 18:20	100
Xylenes (total)	ND		454		ug/kg dry	⊗	10/05/11 13:30	10/11/11 18:20	100
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>		97.0		70 - 135			10/05/11 13:30	10/11/11 18:20	100
<i>1,2-DCA-d4</i>		109		60 - 145			10/05/11 13:30	10/11/11 18:20	100
<i>Toluene-d8</i>		105		70 - 140			10/05/11 13:30	10/11/11 18:20	100
<i>4-BFB</i>		100		70 - 140			10/05/11 13:30	10/11/11 18:20	100

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Acenaphthylene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Anthracene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Benzo (a) anthracene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Benzo (a) pyrene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Benzo (b) fluoranthene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Benzo (ghi) perylene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Benzo (k) fluoranthene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Chrysene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Dibenzo (a,h) anthracene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Fluoranthene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Fluorene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Indeno (1,2,3-cd) pyrene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Naphthalene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Phenanthrene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
Pyrene	ND		22.3		ug/kg dry	⊗	10/11/11 07:02	10/12/11 12:31	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Fluorene-d10</i>		81.4		24 - 125			10/11/11 07:02	10/12/11 12:31	1.00
<i>Pyrene-d10</i>		114		41 - 141			10/11/11 07:02	10/12/11 12:31	1.00
<i>Benzo (a) pyrene-d12</i>		84.4		38 - 143			10/11/11 07:02	10/12/11 12:31	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		20.8		mg/kg dry	⊗	10/10/11 18:44	10/11/11 19:10	1.00
Residual Range/Heavy Oil Organics	ND		41.6		mg/kg dry	⊗	10/10/11 18:44	10/11/11 19:10	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>1-Chlorooctadecane</i>		75.8		50 - 150			10/10/11 18:44	10/11/11 19:10	1.00

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		18.1		mg/kg dry	⊗	10/05/11 13:30	10/11/11 12:56	50.0
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-TFT (FID)</i>		119		50 - 150			10/05/11 13:30	10/11/11 12:56	50.0

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB7A-11.8**

Date Collected: 10/05/11 13:30  
Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-13**

Matrix: Solid

Percent Solids: 59.9

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	59.9		0.0100		% by Weight		10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB1A-9.8**

Date Collected: 10/05/11 14:20  
Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-14**

Matrix: Solid  
Percent Solids: 56.9

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		95.9		ug/kg dry	⊗	10/05/11 14:20	10/11/11 18:43	100
Toluene	ND		240		ug/kg dry	⊗	10/05/11 14:20	10/11/11 18:43	100
Ethylbenzene	ND		240		ug/kg dry	⊗	10/05/11 14:20	10/11/11 18:43	100
o-Xylene	ND		479		ug/kg dry	⊗	10/05/11 14:20	10/11/11 18:43	100
m,p-Xylene	ND		479		ug/kg dry	⊗	10/05/11 14:20	10/11/11 18:43	100
Xylenes (total)	ND		479		ug/kg dry	⊗	10/05/11 14:20	10/11/11 18:43	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>	96.2		70 - 135				10/05/11 14:20	10/11/11 18:43	100
<i>1,2-DCA-d4</i>	110		60 - 145				10/05/11 14:20	10/11/11 18:43	100
<i>Toluene-d8</i>	106		70 - 140				10/05/11 14:20	10/11/11 18:43	100
<i>4-BFB</i>	99.4		70 - 140				10/05/11 14:20	10/11/11 18:43	100

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		57.7		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1221	ND		116		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1232	ND		57.7		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1242	ND		57.7		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1248	ND		57.7		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1254	ND		57.7		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1260	ND		57.7		ug/kg dry	⊗	10/10/11 17:33	10/12/11 11:20	1.00
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Decachlorobiphenyl</i>	69.6		16 - 149				10/10/11 17:33	10/12/11 11:20	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Acenaphthylene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Anthracene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Benzo (a) anthracene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Benzo (a) pyrene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Benzo (b) fluoranthene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Benzo (ghi) perylene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Benzo (k) fluoranthene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Chrysene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Dibenzo (a,h) anthracene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Fluoranthene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Fluorene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Indeno (1,2,3-cd) pyrene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Naphthalene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Phenanthrene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
Pyrene	ND		23.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:02	1.00
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Fluorene-d10</i>	74.1		24 - 125				10/11/11 07:02	10/12/11 13:02	1.00
<i>Pyrene-d10</i>	104		41 - 141				10/11/11 07:02	10/12/11 13:02	1.00
<i>Benzo (a) pyrene-d12</i>	77.4		38 - 143				10/11/11 07:02	10/12/11 13:02	1.00

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB1A-9.8**

Date Collected: 10/05/11 14:20

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-14**

Matrix: Solid

Percent Solids: 56.9

**Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		21.7		mg/kg dry	⊗	10/10/11 18:44	10/11/11 19:29	1.00
Residual Range/Heavy Oil Organics	46.5	Q13	43.5		mg/kg dry	⊗	10/10/11 18:44	10/11/11 19:29	1.00

**Surrogate**

	% Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	74.2		50 - 150		10/10/11 18:44	10/11/11 19:29	1.00

**Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		19.2		mg/kg dry	⊗	10/05/11 14:20	10/11/11 13:24	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-TFT (FID)	121		50 - 150				10/05/11 14:20	10/11/11 13:24	50.0

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	56.9		0.0100		% by Weight	⊗	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB4A-9.7**

Date Collected: 10/05/11 15:00  
Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-15**

Matrix: Solid  
Percent Solids: 71.3

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		46.8		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
Aroclor 1221	ND		94.1		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
Aroclor 1232	ND		46.8		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
Aroclor 1242	ND		46.8		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
Aroclor 1248	ND		46.8		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
Aroclor 1254	ND		46.8		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
Aroclor 1260	ND		46.8		ug/kg dry	⊗	10/11/11 07:05	10/12/11 14:47	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl		93.4		16 - 149			10/11/11 07:05	10/12/11 14:47	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>45.8</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
Acenaphthylene	ND		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Anthracene</b>	<b>105</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Benzo (a) anthracene</b>	<b>94.7</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Benzo (a) pyrene</b>	<b>47.3</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Benzo (b) fluoranthene</b>	<b>55.6</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Benzo (ghi) perylene</b>	<b>23.4</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Benzo (k) fluoranthene</b>	<b>38.3</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Chrysene</b>	<b>124</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
Dibenzo (a,h) anthracene	ND		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Fluoranthene</b>	<b>434</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
Fluorene	ND		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Indeno (1,2,3-cd) pyrene</b>	<b>21.0</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
Naphthalene	ND		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Phenanthrene</b>	<b>49.9</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Pyrene</b>	<b>411</b>		18.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 13:31	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Fluorene-d10		77.5		24 - 125			10/11/11 07:02	10/12/11 13:31	1.00
Pyrene-d10		101		41 - 141			10/11/11 07:02	10/12/11 13:31	1.00
Benzo (a) pyrene-d12		80.6		38 - 143			10/11/11 07:02	10/12/11 13:31	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		17.4		mg/kg dry	⊗	10/10/11 18:44	10/11/11 19:47	1.00
Residual Range/Heavy Oil Organics	ND		34.9		mg/kg dry	⊗	10/10/11 18:44	10/11/11 19:47	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctadecane		68.6		50 - 150			10/10/11 18:44	10/11/11 19:47	1.00

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>% Solids</b>	<b>71.3</b>		0.0100		% by Weight	D	10/10/11 15:36	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB9A-11.8**

Date Collected: 10/05/11 16:00

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-17**

Matrix: Solid

Percent Solids: 60.5

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		9770		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Benzene	ND		78.2		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Bromobenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Bromochloromethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Bromodichloromethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Bromoform	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Bromomethane	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
2-Butanone (MEK)	ND		3910		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
n-Butylbenzene	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
sec-Butylbenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
tert-Butylbenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Carbon disulfide	ND		3910		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Carbon tetrachloride	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Chlorobenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Chloroethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Chloroform	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Chloromethane	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
2-Chlorotoluene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
4-Chlorotoluene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,2-Dibromo-3-chloropropane	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Dibromochloromethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,2-Dibromoethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Dibromomethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,2-Dichlorobenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,3-Dichlorobenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,4-Dichlorobenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Dichlorodifluoromethane	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,1-Dichloroethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,2-Dichloroethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,1-Dichloroethene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
cis-1,2-Dichloroethene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
trans-1,2-Dichloroethene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,2-Dichloropropane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,3-Dichloropropane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
2,2-Dichloropropane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,1-Dichloropropene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
cis-1,3-Dichloropropene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
trans-1,3-Dichloropropene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Ethylbenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Hexachlorobutadiene	ND		1560		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
2-Hexanone	ND		3910		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Isopropylbenzene	ND		782		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
p-Isopropyltoluene	ND		782		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
4-Methyl-2-pentanone	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Methyl tert-butyl ether	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Methylene chloride	ND		1950		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Naphthalene	ND		782		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
n-Propylbenzene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
Styrene	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100
1,1,1,2-Tetrachloroethane	ND		391		ug/kg dry	⊗	10/05/11 16:00	10/11/11 19:05	100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB9A-11.8**

**Lab Sample ID: 580-29132-17**

Date Collected: 10/05/11 16:00  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 60.5

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
Tetrachloroethene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
Toluene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,2,3-Trichlorobenzene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,2,4-Trichlorobenzene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,1,1-Trichloroethane	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,1,2-Trichloroethane	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
Trichloroethene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
Trichlorofluoromethane	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,2,3-Trichloropropane	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,2,4-Trimethylbenzene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
1,3,5-Trimethylbenzene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
Vinyl chloride	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
o-Xylene	ND		391		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
m,p-Xylene	ND		782		ug/kg dry	☀	10/05/11 16:00	10/11/11 19:05	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	98.5		70 - 135				10/05/11 16:00	10/11/11 19:05	100
1,2-DCA-d4	110		60 - 145				10/05/11 16:00	10/11/11 19:05	100
Toluene-d8	105		70 - 140				10/05/11 16:00	10/11/11 19:05	100
4-BFB	97.7		70 - 140				10/05/11 16:00	10/11/11 19:05	100

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		54.0		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
Aroclor 1221	ND		109		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
Aroclor 1232	ND		54.0		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
Aroclor 1242	ND		54.0		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
Aroclor 1248	ND		54.0		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
Aroclor 1254	ND		54.0		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
Aroclor 1260	ND		54.0		ug/kg dry	☀	10/10/11 17:33	10/12/11 11:43	1.00
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	84.8		16 - 149				10/10/11 17:33	10/12/11 11:43	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Acenaphthylene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Anthracene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Benzo (a) anthracene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Benzo (a) pyrene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Benzo (b) fluoranthene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Benzo (ghi) perylene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Benzo (k) fluoranthene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Chrysene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Dibenzo (a,h) anthracene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Fluoranthene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Fluorene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Indeno (1,2,3-cd) pyrene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00
Naphthalene	ND		22.0		ug/kg dry	☀	10/11/11 07:02	10/12/11 14:00	1.00

# Client Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB9A-11.8**

**Lab Sample ID: 580-29132-17**

Date Collected: 10/05/11 16:00

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 60.5

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		22.0		ug/kg dry	⊗	10/11/11 07:02	10/12/11 14:00	1.00
Pyrene	22.7		22.0		ug/kg dry	⊗	10/11/11 07:02	10/12/11 14:00	1.00
<b>Surrogate</b>									
Fluorene-d10									
77.2									
Pyrene-d10									
110									
Benzo (a) pyrene-d12									
68.9									
38 - 143									

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	22.9	Q13	20.5		mg/kg dry	⊗	10/10/11 18:44	10/11/11 20:05	1.00
Residual Range/Heavy Oil Organics	124	Q13	41.0		mg/kg dry	⊗	10/10/11 18:44	10/11/11 20:05	1.00
<b>Surrogate</b>									
1-Chlorooctadecane									
63.0									
50 - 150									

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		15.6		mg/kg dry	⊗	10/05/11 16:00	10/11/11 13:52	50.0
<b>Surrogate</b>									
a,a,a-TFT (FID)									
124									
50 - 150									

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	60.5		0.0100		% by Weight	⊗	10/10/11 15:36	10/12/11 07:30	1.00

# QC Sample Results

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-29132-1

Project/Site: Sno Pac

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

**Lab Sample ID: 11J0271-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0271**

**Client Sample ID: Method Blank**  
**Prep Type: Total**  
**Prep Batch: 11J0271\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		19.9		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Toluene	ND		49.8		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Ethylbenzene	ND		49.8		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
o-Xylene	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
m,p-Xylene	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Xylenes (total)	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100

Surrogate	Blank	Blank	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Dibromofluoromethane	105		70 - 135	10/10/11 08:20	10/10/11 09:26	100
1,2-DCA-d4	115		60 - 145	10/10/11 08:20	10/10/11 09:26	100
Toluene-d8	104		70 - 140	10/10/11 08:20	10/10/11 09:26	100
4-BFB	99.2		70 - 140	10/10/11 08:20	10/10/11 09:26	100

**Lab Sample ID: 11J0271-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0271**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total**  
**Prep Batch: 11J0271\_P**

Analyte	Spike	LCS	LCS	% Rec.		
	Added	Result	Qualifier	Unit	D	% Rec
Benzene	1960	1990		ug/kg wet	101	82 - 125
Toluene	1960	2020		ug/kg wet	103	80 - 125
Ethylbenzene	1960	1940		ug/kg wet	98.9	80 - 120
o-Xylene	1960	1820		ug/kg wet	92.7	80 - 126
m,p-Xylene	3930	3840		ug/kg wet	97.8	80 - 120
Xylenes (total)	5890	5660		ug/kg wet	96.1	70 - 130

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Dibromofluoromethane	106		70 - 135			
1,2-DCA-d4	112		60 - 145			
Toluene-d8	105		70 - 140			
4-BFB	94.3		70 - 140			

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B

**Lab Sample ID: 11J0271-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0271**

**Client Sample ID: Method Blank**  
**Prep Type: Total**  
**Prep Batch: 11J0271\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		2490		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Benzene	ND		19.9		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Bromobenzene	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Bromochloromethane	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Bromodichloromethane	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Bromoform	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Bromomethane	ND		498		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
2-Butanone (MEK)	ND		996		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
n-Butylbenzene	ND		498		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Lab Sample ID: 11J0271-BLK1

Client Sample ID: Method Blank

Matrix: Soil

Prep Type: Total

Analysis Batch: 11J0271

Prep Batch: 11J0271\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
tert-Butylbenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Carbon disulfide	ND		996		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Carbon tetrachloride	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Chlorobenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Chloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Chloroform	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Chloromethane	ND		498		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
2-Chlorotoluene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
4-Chlorotoluene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2-Dibromo-3-chloropropane	ND		498		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Dibromochloromethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2-Dibromoethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Dibromomethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2-Dichlorobenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,3-Dichlorobenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,4-Dichlorobenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Dichlorodifluoromethane	ND		498		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1-Dichloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2-Dichloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1-Dichloroethene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
cis-1,2-Dichloroethene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
trans-1,2-Dichloroethene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2-Dichloropropane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,3-Dichloropropane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
2,2-Dichloropropane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1-Dichloropropene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
cis-1,2-Dichloropropene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
trans-1,3-Dichloropropene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Ethylbenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Hexachlorobutadiene	ND		398		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
2-Hexanone	ND		996		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Isopropylbenzene	ND		199		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
p-Isopropyltoluene	ND		199		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
4-Methyl-2-pentanone	ND		498		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Methyl tert-butyl ether	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Methylene chloride	ND		498		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Naphthalene	ND		199		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
n-Propylbenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Styrene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1,1,2-Tetrachloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1,2,2-Tetrachloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Tetrachloroethene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Toluene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2,3-Trichlorobenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,2,4-Trichlorobenzene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1,1-Trichloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
1,1,2-Trichloroethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Trichloroethene	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	
Trichlorofluoromethane	ND		99.6		ug/kg wet	10/10/11 08:20	10/10/11 09:26	100	

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11J0271-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0271**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0271\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,3-Trichloropropane	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
1,2,4-Trimethylbenzene	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
1,3,5-Trimethylbenzene	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Vinyl chloride	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
o-Xylene	ND		99.6		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
m,p-Xylene	ND		199		ug/kg wet		10/10/11 08:20	10/10/11 09:26	100
Surrogate	Blank	Blank	Limits	Prepared	Analyzed	Dil Fac			
	% Recovery	Qualifier							
<i>Dibromofluoromethane</i>	105		70 - 135				10/10/11 08:20	10/10/11 09:26	100
1,2-DCA-d4	115		60 - 145				10/10/11 08:20	10/10/11 09:26	100
Toluene-d8	104		70 - 140				10/10/11 08:20	10/10/11 09:26	100
4-BFB	99.2		70 - 140				10/10/11 08:20	10/10/11 09:26	100

**Lab Sample ID: 11J0271-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0271**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0271\_P**

Analyte	Spike	LCS			% Rec.		
	Added	Result	Qualifier	Unit	D	% Rec	Limits
Acetone	9820	9470		ug/kg wet		96.4	65 - 167
Benzene	1960	1990		ug/kg wet		101	81.9 - 125
Bromobenzene	1960	1850		ug/kg wet		94.2	80 - 120
Bromochloromethane	1960	2090		ug/kg wet		106	80 - 120
Bromodichloromethane	1960	2160		ug/kg wet		110	80 - 141
Bromoform	1960	1830		ug/kg wet		93.2	75 - 151
Bromomethane	1960	1540		ug/kg wet		78.4	65 - 130
2-Butanone (MEK)	9820	9740		ug/kg wet		99.2	68 - 127
n-Butylbenzene	1960	2110		ug/kg wet		107	90 - 146
sec-Butylbenzene	1960	1930		ug/kg wet		98.3	80 - 133
tert-Butylbenzene	1960	2030		ug/kg wet		103	80 - 130
Carbon disulfide	3930	3850		ug/kg wet		98.0	67 - 140
Carbon tetrachloride	1960	2580	L5	ug/kg wet		131	71 - 128
Chlorobenzene	1960	2080		ug/kg wet		106	79.2 - 125
Chloroethane	1960	1870		ug/kg wet		95.1	75 - 125
Chloroform	1960	2060		ug/kg wet		105	80 - 121
Chloromethane	1960	1900		ug/kg wet		96.9	42 - 150
2-Chlorotoluene	1960	1860		ug/kg wet		94.6	80 - 120
4-Chlorotoluene	1960	1830		ug/kg wet		93.1	80 - 126
1,2-Dibromo-3-chloropropane	1960	1830		ug/kg wet		93.2	61 - 128
Dibromochloromethane	1960	1980		ug/kg wet		101	75 - 125
1,2-Dibromoethane	1960	2160		ug/kg wet		110	80 - 124
Dibromomethane	1960	2100		ug/kg wet		107	80 - 120
1,2-Dichlorobenzene	1960	1910		ug/kg wet		97.4	80 - 120
1,3-Dichlorobenzene	1960	1950		ug/kg wet		99.3	80 - 126
1,4-Dichlorobenzene	1960	1770		ug/kg wet		90.3	77 - 121
Dichlorodifluoromethane	1960	1810		ug/kg wet		92.2	75 - 120
1,1-Dichloroethane	1960	2050		ug/kg wet		104	80 - 120
1,2-Dichloroethane	1960	2130		ug/kg wet		108	80 - 120
1,1-Dichloroethene	1960	2030		ug/kg wet		103	66.1 - 125
cis-1,2-Dichloroethene	1960	2070		ug/kg wet		106	75 - 125

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11J0271-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0271**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0271\_P**

Analyte	Spike Added	LCS		Unit	D	% Rec	Limits	% Rec.
		Result	Qualifier					
trans-1,2-Dichloroethene	1960	2050		ug/kg wet		105	75 - 125	
1,2-Dichloropropane	1960	2070		ug/kg wet		105	82 - 125	
1,3-Dichloropropane	1960	2140		ug/kg wet		109	75 - 129	
2,2-Dichloropropane	1960	2320		ug/kg wet		118	72 - 132	
1,1-Dichloropropene	1960	2150		ug/kg wet		109	79 - 126	
cis-1,3-Dichloropropene	1960	2180		ug/kg wet		111	80 - 126	
trans-1,3-Dichloropropene	1960	2030		ug/kg wet		103	67 - 146	
Ethylbenzene	1960	1940		ug/kg wet		98.9	82 - 123	
Hexachlorobutadiene	1960	2330		ug/kg wet		119	80 - 152	
2-Hexanone	9820	10300		ug/kg wet		105	57 - 120	
Isopropylbenzene	1960	1890		ug/kg wet		96.4	82 - 128	
p-Isopropyltoluene	1960	1980		ug/kg wet		101	80 - 120	
4-Methyl-2-pentanone	9820	9870		ug/kg wet		100	52 - 120	
Methyl tert-butyl ether	1960	2250		ug/kg wet		115	75 - 125	
Methylene chloride	1960	2090		ug/kg wet		106	75 - 125	
Naphthalene	1960	2080		ug/kg wet		106	80 - 130	
n-Propylbenzene	1960	1920		ug/kg wet		97.5	80 - 120	
Styrene	1960	2020		ug/kg wet		103	80 - 123	
1,1,1,2-Tetrachloroethane	1960	2300		ug/kg wet		117	83 - 128	
1,1,2,2-Tetrachloroethane	1960	1850		ug/kg wet		94.3	72 - 135	
Tetrachloroethene	1960	2080		ug/kg wet		106	80 - 124	
Toluene	1960	2020		ug/kg wet		103	80 - 125	
1,2,3-Trichlorobenzene	1960	2130		ug/kg wet		108	78 - 143	
1,2,4-Trichlorobenzene	1960	2130		ug/kg wet		108	83 - 149	
1,1,1-Trichloroethane	1960	2290		ug/kg wet		117	80 - 124	
1,1,2-Trichloroethane	1960	2030		ug/kg wet		103	80 - 125	
Trichloroethene	1960	2030		ug/kg wet		103	76 - 125	
Trichlorofluoromethane	1960	2150		ug/kg wet		109	56 - 147	
1,2,3-Trichloropropane	1960	1880		ug/kg wet		95.8	67 - 126	
1,2,4-Trimethylbenzene	1960	1930		ug/kg wet		98.4	81 - 134	
1,3,5-Trimethylbenzene	1960	2060		ug/kg wet		105	82 - 136	
Vinyl chloride	1960	1060		ug/kg wet		54.2	10 - 140	
o-Xylene	1960	1820		ug/kg wet		92.7	80 - 126	
m,p-Xylene	3930	3840		ug/kg wet		97.8	80 - 120	

LCS   LCS

Surrogate	% Recovery	Qualifier	Limits
Dibromofluoromethane	106		70 - 135
1,2-DCA-d4	112		60 - 145
Toluene-d8	105		70 - 140
4-BFB	94.3		70 - 140

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

**Lab Sample ID: 11J0302-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0302**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0302\_P**

Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte					ug/kg wet					
Aroclor 1016		ND		33.0				10/10/11 17:33	10/12/11 11:20	1.00

# QC Sample Results

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082 (Continued)

**Lab Sample ID: 11J0302-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0302**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0302\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1221	ND		66.4		ug/kg wet		10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1232	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1242	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1248	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1254	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 11:20	1.00
Aroclor 1260	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 11:20	1.00

Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Decachlorobiphenyl	97.4		16 - 149				10/10/11 17:33	10/12/11 11:20	1.00

**Lab Sample ID: 11J0302-BLK2**

**Matrix: Soil**

**Analysis Batch: 11J0302**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0302\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1016	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00
Aroclor 1221	ND		66.4		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00
Aroclor 1232	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00
Aroclor 1242	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00
Aroclor 1248	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00
Aroclor 1254	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00
Aroclor 1260	ND		33.0		ug/kg wet		10/10/11 17:33	10/12/11 12:06	1.00

Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Decachlorobiphenyl	88.0		16 - 149				10/10/11 17:33	10/12/11 12:06	1.00

**Lab Sample ID: 11J0302-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0302**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0302\_P**

Analyte	Spike	LCS	LCS	D	% Rec.	Limits
	Added	Result	Qualifier			
Aroclor 1016	328	318		ug/kg wet	96.7	57 - 135
Aroclor 1260	328	301		ug/kg wet	91.7	60 - 135

Surrogate	LCS	LCS	% Recovery	Qualifier	Limits	D
	Result	Qualifier				
Decachlorobiphenyl	96.4		16 - 149			

**Lab Sample ID: 11J0302-BS2**

**Matrix: Soil**

**Analysis Batch: 11J0302**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0302\_P**

Analyte	Spike	LCS	LCS	D	% Rec.	Limits
	Added	Result	Qualifier			
Aroclor 1016	328	315		ug/kg wet	96.0	57 - 135
Aroclor 1260	328	326		ug/kg wet	99.1	60 - 135

Surrogate	LCS	LCS	% Recovery	Qualifier	Limits	D
	Result	Qualifier				
Decachlorobiphenyl	102		16 - 149			

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082 (Continued)

**Lab Sample ID: 11J0310-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0310**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0310\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1016	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1221	ND		66.0		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1232	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1242	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1248	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1254	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1260	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
<b>Surrogate</b>									
<i>Decachlorobiphenyl</i>	Blank	Blank	% Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
			101		16 - 149				

**Lab Sample ID: 11J0310-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0310**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0310\_P**

Analyte	Spike	Blank	Blank	LCS Result	LCS Qualifier	Unit	D	% Rec.	Limits
		Added							
Aroclor 1016		329		321		ug/kg wet		97.6	57 - 135
Aroclor 1260		329		323		ug/kg wet		98.3	60 - 135
<b>Surrogate</b>									
<i>Decachlorobiphenyl</i>	LCS	LCS	% Recovery	Qualifier	Limits				
			101		16 - 149				

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

**Lab Sample ID: 11J0309-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Acenaphthylene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Anthracene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (a) anthracene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (a) pyrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (b) fluoranthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (ghi) perylene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (k) fluoranthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Chrysene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Dibenzo (a,h) anthracene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Fluoranthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Fluorene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Indeno (1,2,3-cd) pyrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Naphthalene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Phenanthrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Pyrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
<b>Surrogate</b>									
<i>Fluorene-d10</i>	Blank	Blank	% Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
			81.6		24 - 125				

# QC Sample Results

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-29132-1

Project/Site: Sno Pac

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)

**Lab Sample ID: 11J0309-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Surrogate	Blank	Blank				
	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Pyrene-d10	91.4		41 - 141	10/11/11 07:02	10/11/11 20:01	1.00
Benzo (a) pyrene-d12	85.6		38 - 143	10/11/11 07:02	10/11/11 20:01	1.00

**Lab Sample ID: 11J0309-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Analyte		Spike	LCS	LCS	% Rec.			
		Added	Result	Qualifier	Unit	D	% Rec	Limits
Acenaphthene		166	147		ug/kg wet		88.9	33 - 139
Benzo (a) pyrene		166	163		ug/kg wet		98.2	45 - 149
Pyrene		166	156		ug/kg wet		94.1	39 - 138

Surrogate		LCS	LCS
		% Recovery	Qualifier
Fluorene-d10		87.9	24 - 125
Pyrene-d10		90.6	41 - 141
Benzo (a) pyrene-d12		95.1	38 - 143

**Lab Sample ID: 11J0309-MS1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: 100511-FB5A-18.0 (580-29132-3)**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	Limits
Acenaphthene	ND		203	160		ug/kg dry	⊗	78.7	33 - 139
Benzo (a) pyrene	10.6		203	185		ug/kg dry	⊗	85.6	45 - 149
Pyrene	27.4		203	211		ug/kg dry	⊗	90.0	39 - 138

Surrogate		Matrix Spike % Recovery	Matrix Spike Qualifier	Matrix Spike Limits
Fluorene-d10		78.7		24 - 125
Pyrene-d10		93.8		41 - 141
Benzo (a) pyrene-d12		90.4		38 - 143

**Lab Sample ID: 11J0309-MSD1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: 100511-FB5A-18.0 (580-29132-3)**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Acenaphthene	ND		203	152		ug/kg dry	⊗	74.9	33 - 139	4.97	40
Benzo (a) pyrene	10.6		203	185		ug/kg dry	⊗	85.9	45 - 149	0.222	40
Pyrene	27.4		203	232		ug/kg dry	⊗	101	39 - 138	9.70	40

Surrogate		Matrix Spike Dup % Recovery	Matrix Spike Dup Qualifier	Matrix Spike Dup Limits
Fluorene-d10		77.9		24 - 125
Pyrene-d10		88.4		41 - 141
Benzo (a) pyrene-d12		85.8		38 - 143

# QC Sample Results

Client: Farallon Consulting LLC

TestAmerica Job ID: 580-29132-1

Project/Site: Sno Pac

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

**Lab Sample ID: 11J0306-BLK1**

Matrix: Soil

Analysis Batch: 11J0306

**Client Sample ID: Method Blank**

Prep Type: Total

Prep Batch: 11J0306\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics	ND		12.5		mg/kg wet		10/10/11 18:44	10/11/11 13:42	1.00
Residual Range/Heavy Oil Organics	ND		25.0		mg/kg wet		10/10/11 18:44	10/11/11 13:42	1.00
Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	D	Prepared	Analyzed	Dil Fac
	1-Chlorooctadecane		86.9		50 - 150		10/10/11 18:44	10/11/11 13:42	1.00

**Lab Sample ID: 11J0306-BS1**

Matrix: Soil

Analysis Batch: 11J0306

**Client Sample ID: Lab Control Sample**

Prep Type: Total

Prep Batch: 11J0306\_P

Analyte	Blank	Blank	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier			% Rec	
Diesel Range Organics			125	126		mg/kg wet		101	50 - 150
Residual Range/Heavy Oil Organics			74.9	70.0		mg/kg wet		93.5	50 - 150
Surrogate	Blank	Blank	LCS	LCS	Limits	Unit	D	% Rec	Limits
	1-Chlorooctadecane		106		60 - 120				

**Lab Sample ID: 11J0306-DUP1**

**Client Sample ID: 100511-FB5A-18.0 (580-29132-3)**

Prep Type: Total

Prep Batch: 11J0306\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Diesel Range Organics	55.5	Q12		50.0	BQC1	mg/kg dry	⊗	10.4
Residual Range/Heavy Oil Organics	156			144	BQC1	mg/kg dry	⊗	8.25
Surrogate	Duplicate	Duplicate	% Recovery	Qualifier	Limits	Unit	D	RPD
	1-Chlorooctadecane		77.4	BQC1	50 - 150			

**Lab Sample ID: 11J0306-DUP2**

**Client Sample ID: 100511-FB6A-11.5 (580-29132-10)**

Prep Type: Total

Prep Batch: 11J0306\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Diesel Range Organics	8.88			8.51	BQC1	mg/kg dry	⊗	4.27
Residual Range/Heavy Oil Organics	112	Q13		115	BQC1	mg/kg dry	⊗	2.54
Surrogate	Duplicate	Duplicate	% Recovery	Qualifier	Limits	Unit	D	RPD
	1-Chlorooctadecane		72.3	BQC1	50 - 150			

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

**Lab Sample ID: 11J0320-BLK1**

Matrix: Soil

Analysis Batch: 11J0320

**Client Sample ID: Method Blank**

Prep Type: Total

Prep Batch: 11J0320\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Hydrocarbons	ND		3.80		mg/kg wet		10/11/11 10:00	10/11/11 11:34	50.0
Surrogate	Blank	Blank	Limits			Prepared	Analyzed	Dil Fac	
	% Recovery	Qualifier							
a,a,a-TFT (FID)	92.0		50 - 150				10/11/11 10:00	10/11/11 11:34	50.0

**Lab Sample ID: 11J0320-BS1**

Matrix: Soil

Analysis Batch: 11J0320

**Client Sample ID: Lab Control Sample**

Prep Type: Total

Prep Batch: 11J0320\_P

Analyte	Blank	Blank	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Result	Qualifier							
Gasoline Range Hydrocarbons	ND		23.9	23.3		mg/kg wet		97.4	70 - 130
Surrogate	Blank	Blank	Limits				Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier							
a,a,a-TFT (FID)	94.6		50 - 150						

**Lab Sample ID: 11J0320-MS1**

Matrix: Soil

Analysis Batch: 11J0320

**Client Sample ID: 100511-FB1A-9.8 (580-29132-14)**

Prep Type: Total

Prep Batch: 11J0320\_P

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	% Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Gasoline Range Hydrocarbons	ND		101	128		mg/kg dry	⊗	126	65 - 130
Surrogate	Matrix Spike	Matrix Spike	Limits				Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier							
a,a,a-TFT (FID)	127		50 - 150						

**Lab Sample ID: 11J0320-DUP1**

Matrix: Soil

Analysis Batch: 11J0320

**Client Sample ID: 100511-FB8A-11.7 (580-29132-12)**

Prep Type: Total

Prep Batch: 11J0320\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier						
Gasoline Range Hydrocarbons	ND		ND		mg/kg dry	⊗		40
Surrogate	Duplicate	Duplicate	Limits			Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier						
a,a,a-TFT (FID)	124		50 - 150					

**Lab Sample ID: 11J0320-DUP2**

Matrix: Soil

Analysis Batch: 11J0320

**Client Sample ID: 100511-FB7A-11.8 (580-29132-13)**

Prep Type: Total

Prep Batch: 11J0320\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier						
Gasoline Range Hydrocarbons	ND		ND		mg/kg dry	⊗		40
Surrogate	Duplicate	Duplicate	Limits			Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier						
a,a,a-TFT (FID)	121		50 - 150					

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5A-8.4**

**Lab Sample ID: 580-29132-1**

Date Collected: 10/05/11 09:00

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 60.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		1.82	11J0271_P	10/05/11 09:00	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 16:08	BJ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100511-FB5A-18.0**

**Lab Sample ID: 580-29132-3**

Date Collected: 10/05/11 09:20

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		1.69	11J0271_P	10/05/11 09:20	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 16:30	BJ	TAL PTL
Total	Prep	EPA 3550		0.984	11J0302_P	10/10/11 17:33	BDM	TAL PTL
Total	Analysis	EPA 8082		1.00	11J0302	10/12/11 13:15	PS	TAL PTL
Total	Prep	EPA 3550		0.999	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 10:55	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.998	11J0306_P	10/10/11 18:44	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 13:06	NMI	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: TB-1-100511**

**Lab Sample ID: 580-29132-5**

Matrix: Solid

Date Received: 10/06/11 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		0.946	11J0271_P	10/05/11 09:35	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 15:46	BJ	TAL PTL

**Client Sample ID: 100511-FB5B-18.0**

**Lab Sample ID: 580-29132-6**

Matrix: Solid

Date Received: 10/06/11 16:10

Percent Solids: 64.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.03	11J0271_P	10/05/11 09:50	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 16:52	BJ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB5C-10.2**

**Lab Sample ID: 580-29132-7**

Date Collected: 10/05/11 10:40  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 59.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.61	11J0271_P	10/05/11 10:40	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 17:14	BJ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100511-FB5C-14.8**

**Lab Sample ID: 580-29132-8**

Date Collected: 10/05/11 11:00  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 55.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.79	11J0271_P	10/05/11 11:00	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 17:36	BJ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100511-FB6A-11.5**

**Lab Sample ID: 580-29132-10**

Date Collected: 10/05/11 11:20  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550		0.985	11J0302_P	10/10/11 17:33	BDM	TAL PTL
Total	Analysis	EPA 8082		1.00	11J0302	10/12/11 13:38	PS	TAL PTL
Total	Prep	EPA 3550		0.998	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 11:33	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.995	11J0306_P	10/10/11 18:44	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 13:24	NMI	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100511-FB8A-11.7**

**Lab Sample ID: 580-29132-12**

Date Collected: 10/05/11 12:50  
Date Received: 10/06/11 16:10

Matrix: Solid

Percent Solids: 45.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.34	11J0271_P	10/05/11 12:50	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 17:58	BJ	TAL PTL
Total	Prep	EPA 3550		0.993	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 12:03	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.990	11J0306_P	10/10/11 18:44	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 18:51	NMI	TAL PTL
Total	Prep	EPA 5030B		2.34	11J0320_P	10/05/11 12:50	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0320	10/11/11 12:28	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

## Lab Chronicle

Client: Farallon Consulting LLC

Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB7A-11.8**

Date Collected: 10/05/11 13:30

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-13**

Matrix: Solid

Percent Solids: 59.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.31	11J0271_P	10/05/11 13:30	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 18:20	BJ	TAL PTL
Total	Prep	EPA 3550		0.997	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 12:31	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.997	11J0306_P	10/10/11 18:44	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 19:10	NMI	TAL PTL
Total	Prep	EPA 5030B		2.31	11J0320_P	10/05/11 13:30	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0320	10/11/11 12:56	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100511-FB1A-9.8**

Date Collected: 10/05/11 14:20

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-14**

Matrix: Solid

Percent Solids: 56.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.30	11J0271_P	10/05/11 14:20	TDB	TAL PTL
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 18:43	BJ	TAL PTL
Total	Prep	EPA 3550		0.986	11J0302_P	10/10/11 17:33	BDM	TAL PTL
Total	Analysis	EPA 8082		1.00	11J0302	10/12/11 11:20	PS	TAL PTL
Total	Prep	EPA 3550		0.996	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 13:02	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.990	11J0306_P	10/10/11 18:44	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 19:29	NMI	TAL PTL
Total	Prep	EPA 5030B		2.30	11J0320_P	10/05/11 14:20	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0320	10/11/11 13:24	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100511-FB4A-9.7**

Date Collected: 10/05/11 15:00

Date Received: 10/06/11 16:10

**Lab Sample ID: 580-29132-15**

Matrix: Solid

Percent Solids: 71.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 3550		1.00	11J0310_P	10/11/11 07:05	CAD	TAL PTL
Total	Analysis	EPA 8082		1.00	11J0310	10/12/11 14:47	PS	TAL PTL
Total	Prep	EPA 3550		0.998	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 13:31	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.995	11J0306_P	10/10/11 18:44	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 19:47	NMI	TAL PTL
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM	TAL PTL

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

**Client Sample ID: 100511-FB9A-11.8**

**Date Collected: 10/05/11 16:00**

**Date Received: 10/06/11 16:10**

**Lab Sample ID: 580-29132-17**

**Matrix: Solid**

**Percent Solids: 60.5**

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	
Total	Prep	EPA 5035A		1.97	11J0271_P	10/05/11 16:00	TDB
Total	Analysis	EPA 8260B		100	11J0271	10/11/11 19:05	BJ
Total	Prep	EPA 3550		0.981	11J0302_P	10/10/11 17:33	BDM
Total	Analysis	EPA 8082		1.00	11J0302	10/12/11 11:43	PS
Total	Prep	EPA 3550		0.994	11J0309_P	10/11/11 07:02	CAD
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 14:00	NAF
Total	Prep	EPA 3550 Fuels		0.993	11J0306_P	10/10/11 18:44	ELP
Total	Analysis	NWTPH-Dx		1.00	11J0306	10/11/11 20:05	NMI
Total	Prep	EPA 5030B		1.97	11J0320_P	10/05/11 16:00	SYZ
Total	Analysis	NW TPH-Gx		50.0	11J0320	10/11/11 13:52	SYZ
Total	Prep	Dry Weight		1.00	11J0276_P	10/10/11 15:36	JJM
Total	Analysis	ASTM D2216-80		1.00	11J0276	10/12/11 07:30	JJM

**Laboratory References:**

TAL PTL = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503) 906-9200

## Certification Summary

Client: Farallon Consulting LLC  
 Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Sample Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac

TestAmerica Job ID: 580-29132-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-29132-1	100511-FB5A-8.4	Solid	10/05/11 09:00	10/06/11 16:10
580-29132-3	100511-FB5A-18.0	Solid	10/05/11 09:20	10/06/11 16:10
580-29132-5	TB-1-100511	Solid	10/05/11 09:35	10/06/11 16:10
580-29132-6	100511-FB5B-18.0	Solid	10/05/11 09:50	10/06/11 16:10
580-29132-7	100511-FB5C-10.2	Solid	10/05/11 10:40	10/06/11 16:10
580-29132-8	100511-FB5C-14.8	Solid	10/05/11 11:00	10/06/11 16:10
580-29132-10	100511-FB6A-11.5	Solid	10/05/11 11:20	10/06/11 16:10
580-29132-12	100511-FB8A-11.7	Solid	10/05/11 12:50	10/06/11 16:10
580-29132-13	100511-FB7A-11.8	Solid	10/05/11 13:30	10/06/11 16:10
580-29132-14	100511-FB1A-9.8	Solid	10/05/11 14:20	10/06/11 16:10
580-29132-15	100511-FB4A-9.7	Solid	10/05/11 15:00	10/06/11 16:10
580-29132-17	100511-FB9A-11.8	Solid	10/05/11 16:00	10/06/11 16:10

Rush

Short Hold

## Chain of Custody Record

Client forallon Consulting LLC		Client Contact Don Lance		Date 10-6-11	Chain of Custody Number 14374
Address 975 5th Ave Suite 100		Telephone Number (Area Code)/Fax Number 425 295 0840		Lab Number 29132	Page 1 of 2
City Issaquah	State WA	Zip Code 98027	Sampler 206 SS17944 Jon Peterson	Lab Contact Jon Peterson	Analysis (Attach list if more space is needed)

Project Name and Location (State)  
Sno Pac Seattle, WA

Contract/Purchase Order/Quote No.

879-009

Sample I.D. and Location/Description  
(Containers for each sample may be combined on one line)

	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TDPH-GX	TDPH-TEX	TDPH-DX	PAH	VOC	PGB
-1	100511-FB5A-8.4	10-5-11	900			X							-	-	-	X	-	
-2	100511-FB5A-12.3					X												Hold
-3	100511-FB5A-18.0					X							-	-	XXX			
-4	100511-FB5B-11.5					X												Hold
-5	TB-1-100511					935							-	-	-	X	-	
-6	100511-FB5B-18.0					950							-	-	-	X	-	
-7	100511-FB5C-10.2					1040							-	-	-	X	-	
-8	100511-FB5C-14.8					1100							-	-	-	X	-	
-9	100511-FB6A-2.5					1110												Hold
-10	100511-FB6A-11.5					1120							-	-	XX	-	X	
-11	100511-FB6A-15.8					1130												Hold
-12	100511-FB8A-11.7					1250							X	X	X	X	-	-

Cooler

Yes  No Cooler Temp:

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal  
 Disposal By Lab  
 Return To Client  Archive For \_\_\_\_\_ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)

24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

QC Requirements (Specify)

1. Relinquished By Sign/Print

*[Signature]*

Jon Peterson

Date 10-6-11 Time 0600

1. Received By Sign/Print

*[Signature]*

Francisca Lang, Jr.

Date 10/6/11 Time 1610

2. Relinquished By Sign/Print

*[Signature]*

Date \_\_\_\_\_ Time \_\_\_\_\_

2. Received By Sign/Print

*[Signature]*

Date \_\_\_\_\_ Time \_\_\_\_\_

3. Relinquished By Sign/Print

*[Signature]*

Date \_\_\_\_\_ Time \_\_\_\_\_

3. Received By Sign/Print

*[Signature]*

Date \_\_\_\_\_ Time \_\_\_\_\_

Comments

Cooler/TB Dig/IR cor<sub>2</sub> unc<sub>5</sub> c<sub>2</sub>  
Cooler Dsc L<sub>3</sub> Bl<sub>4</sub>e/461@ Lab<sub>16</sub>/G  
Wet/Packs Packing B<sub>3</sub>b<sub>3</sub>/e Ba<sub>3</sub>

Cooler		Possible Hazard Identification					Sample Disposal		<input checked="" type="checkbox"/> Disposal By Lab		(A fee may be assessed if samples are retained longer than 1 month)	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Cooler Temp:	<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return To Client		<input type="checkbox"/> Archive For _____ Months		
Turn Around Time Required (business days)												
<input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 5 Days <input type="checkbox"/> 10 Days <input type="checkbox"/> 15 Days <input type="checkbox"/> Other _____												
QC Requirements (Specify)												
1. Relinquished By Sign/Print		Date	Time	1. Received By Sign/Print		Date	Time					
 Jon Peterson		10-6-11	0600	 Francisco Lungs Jr.		10-6-11	0610					
2. Relinquished By Sign/Print		Date	Time	2. Received By Sign/Print		Date	Time					
3. Relinquished By Sign/Print		Date	Time	3. Received By Sign/Print		Date	Time					
Comments _____												

**DISTRIBUTION:** WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy Page 44 of 45

TAI - 8274580 10/12/2011

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-29132-1

**Login Number: 29132**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Luna, Francisco**

Question	Answer	Comment	
Radioactivity either was not measured or, if measured, is at or below background	True		1
The cooler's custody seal, if present, is intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the sample IDs on the containers and the COC.	True		
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

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11

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-29152-1

Client Project/Site: Sno Pac Seattle, WA

For:

Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Donald Lance

Kristine D. Allen

Authorized for release by:  
10/13/2011 12:13:28 PM

Kristine Allen  
Project Manager I  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

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results through

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Case Narrative

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

### Job ID: 580-29152-1

Laboratory: TestAmerica Seattle

#### Narrative

##### Receipt

Samples were received at the laboratory outside the required temperature criteria at 8.2C.

##### Subcontract Work

Methods 8021 BTEX, 8082 PCBs, 8260 VOCs, 8270 SIM (Std PAH List), NWTPH-Dx, NWTPH-Gx: These methods were subcontracted to TestAmerica Portland. The subcontract certifications are different from those listed on the TestAmerica cover page of this final report.

## Definitions/Glossary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

### Qualifiers

#### GCMS Volatiles

Qualifier	Qualifier Description
L5	Analyte recovery outside of specified criteria. Individual analyte criteria exceedences allowed for multi-component analyses without disqualification of data per NELAC Standard, DOD QSM and/or AFCEE QAPP.

#### Semivolatiles

Qualifier	Qualifier Description
ID3	Due to matrix unable to resolve Benzofluoranthene isomers. Value reported only in Benzo(b) category represents Total Benzo(b+k)fluoranthene.
RL1	Reporting limit raised due to sample matrix effects.

#### Fuels

Qualifier	Qualifier Description
Q10	Hydrocarbon pattern most closely resembles a blend of oil as well as biogenic interference.
Q13	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
Q12	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.

### Glossary

#### Abbreviation

**These commonly used abbreviations may or may not be present in this report.**

✉	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: TB-2-100611**

Date Collected: 10/06/11 08:00

Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-1**

Matrix: Solid

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		2360		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Benzene	ND		18.9		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Bromobenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Bromochloromethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Bromodichloromethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Bromoform	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Bromomethane	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
2-Butanone (MEK)	ND		945		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
n-Butylbenzene	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
sec-Butylbenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
tert-Butylbenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Carbon disulfide	ND		945		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Carbon tetrachloride	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Chlorobenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Chloroethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Chloroform	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Chloromethane	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
2-Chlorotoluene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
4-Chlorotoluene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,2-Dibromo-3-chloropropane	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Dibromochloromethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,2-Dibromoethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Dibromomethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,2-Dichlorobenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,3-Dichlorobenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,4-Dichlorobenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Dichlorodifluoromethane	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,1-Dichloroethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,2-Dichloroethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,1-Dichloroethene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
cis-1,2-Dichloroethene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
trans-1,2-Dichloroethene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,2-Dichloropropane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,3-Dichloropropane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
2,2-Dichloropropane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,1-Dichloropropene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
cis-1,3-Dichloropropene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
trans-1,3-Dichloropropene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Ethylbenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Hexachlorobutadiene	ND		378		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
2-Hexanone	ND		945		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Isopropylbenzene	ND		189		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
p-Isopropyltoluene	ND		189		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
4-Methyl-2-pentanone	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Methyl tert-butyl ether	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Methylene chloride	ND		473		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Naphthalene	ND		189		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
n-Propylbenzene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
Styrene	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	
1,1,1,2-Tetrachloroethane	ND		94.5		ug/kg wet	10/06/11 08:00	10/12/11 10:10	100	

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: TB-2-100611**  
**Date Collected: 10/06/11 08:00**  
**Date Received: 10/07/11 16:45**

**Lab Sample ID: 580-29152-1**  
**Matrix: Solid**

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
Tetrachloroethene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
Toluene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,2,3-Trichlorobenzene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,2,4-Trichlorobenzene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,1,1-Trichloroethane	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,1,2-Trichloroethane	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
Trichloroethene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
Trichlorofluoromethane	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,2,3-Trichloropropane	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,2,4-Trimethylbenzene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
1,3,5-Trimethylbenzene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
Vinyl chloride	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
o-Xylene	ND		94.5		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
m,p-Xylene	ND		189		ug/kg wet		10/06/11 08:00	10/12/11 10:10	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		70 - 135				10/06/11 08:00	10/12/11 10:10	100
1,2-DCA-d4	113		60 - 145				10/06/11 08:00	10/12/11 10:10	100
Toluene-d8	107		70 - 140				10/06/11 08:00	10/12/11 10:10	100
4-BFB	97.6		70 - 140				10/06/11 08:00	10/12/11 10:10	100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-5.3**

Date Collected: 10/06/11 12:20

Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-2**

Matrix: Solid

Percent Solids: 82.4

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10500		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
<b>Benzene</b>	<b>1560</b>		83.9		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Bromobenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Bromochloromethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Bromodichloromethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Bromoform	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Bromomethane	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
2-Butanone (MEK)	ND		4190		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
n-Butylbenzene	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
sec-Butylbenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
tert-Butylbenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Carbon disulfide	ND		4190		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Carbon tetrachloride	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Chlorobenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Chloroethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Chloroform	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Chloromethane	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
2-Chlorotoluene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
4-Chlorotoluene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,2-Dibromo-3-chloropropane	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Dibromochloromethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,2-Dibromoethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Dibromomethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,2-Dichlorobenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,3-Dichlorobenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,4-Dichlorobenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Dichlorodifluoromethane	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,1-Dichloroethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,2-Dichloroethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,1-Dichloroethene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
cis-1,2-Dichloroethene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
trans-1,2-Dichloroethene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,2-Dichloropropane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,3-Dichloropropane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
2,2-Dichloropropane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,1-Dichloropropene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
cis-1,3-Dichloropropene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
trans-1,3-Dichloropropene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
<b>Ethylbenzene</b>	<b>918</b>		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Hexachlorobutadiene	ND		1680		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
2-Hexanone	ND		4190		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Isopropylbenzene	ND		839		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
p-Isopropyltoluene	ND		839		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
4-Methyl-2-pentanone	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Methyl tert-butyl ether	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Methylene chloride	ND		2100		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
<b>Naphthalene</b>	<b>3800</b>		839		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
n-Propylbenzene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
Styrene	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100
1,1,1,2-Tetrachloroethane	ND		419		ug/kg dry	⊗	10/06/11 12:20	10/12/11 13:59	100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-5.3**

**Lab Sample ID: 580-29152-2**

Date Collected: 10/06/11 12:20  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 82.4

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
Tetrachloroethene	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
<b>Toluene</b>	<b>5010</b>		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
1,2,3-Trichlorobenzene	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
1,2,4-Trichlorobenzene	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
1,1,1-Trichloroethane	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
1,1,2-Trichloroethane	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
Trichloroethene	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
Trichlorofluoromethane	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
1,2,3-Trichloropropane	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
<b>1,2,4-Trimethylbenzene</b>	<b>2870</b>		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
<b>1,3,5-Trimethylbenzene</b>	<b>696</b>		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
Vinyl chloride	ND		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
<b>o-Xylene</b>	<b>3600</b>		419		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
<b>m,p-Xylene</b>	<b>5050</b>		839		ug/kg dry	☀	10/06/11 12:20	10/12/11 13:59	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	104			70 - 135			10/06/11 12:20	10/12/11 13:59	100
1,2-DCA-d4	116			60 - 145			10/06/11 12:20	10/12/11 13:59	100
Toluene-d8	112			70 - 140			10/06/11 12:20	10/12/11 13:59	100
4-BFB	101			70 - 140			10/06/11 12:20	10/12/11 13:59	100

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		39.9		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
Aroclor 1221	ND		80.2		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
Aroclor 1232	ND		39.9		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
Aroclor 1242	ND		39.9		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
Aroclor 1248	ND		39.9		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
Aroclor 1254	ND		39.9		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
Aroclor 1260	ND		39.9		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:08	1.00
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	80.0			16 - 149			10/11/11 07:05	10/12/11 20:08	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Acenaphthylene</b>	<b>60.7</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Anthracene</b>	<b>199</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Benz(a)anthracene</b>	<b>782</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Benz(a)pyrene</b>	<b>586</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Benz(b)fluoranthene</b>	<b>510</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Benz(ghi)perylene</b>	<b>648</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Benz(k)fluoranthene</b>	<b>386</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Chrysene</b>	<b>730</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Dibenzo(a,h)anthracene</b>	<b>144</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Fluoranthene</b>	<b>1020</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
Fluorene	ND	RL1		64.7	ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Indeno(1,2,3-cd)pyrene</b>	<b>383</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00
<b>Naphthalene</b>	<b>558</b>		32.4		ug/kg dry	☀	10/11/11 07:02	10/12/11 15:29	2.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-5.3**

**Lab Sample ID: 580-29152-2**

Date Collected: 10/06/11 12:20  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 82.4

**Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	847		32.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:29	2.00
Pyrene	1140		32.4		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:29	2.00
<b>Surrogate</b>									
Fluorene-d10									
75.7									
Pyrene-d10									
79.6									
Benzo (a) pyrene-d12									
67.2									
38 - 143									

**Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	320	Q12	15.0		mg/kg dry	⊗	10/11/11 22:00	10/12/11 00:06	1.00
Residual Range/Heavy Oil Organics	569	Q10	30.1		mg/kg dry	⊗	10/11/11 22:00	10/12/11 00:06	1.00
<b>Surrogate</b>									
1-Chlorooctadecane									
84.6									
50 - 150									
10/11/11 22:00									
10/12/11 00:06									
1.00									

**Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	143		16.8		mg/kg dry	⊗	10/06/11 12:20	10/12/11 17:54	50.0
<b>Surrogate</b>									
a,a,a-TFT (FID)									
106									
50 - 150									
10/06/11 12:20									
10/12/11 17:54									
50.0									

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	82.4		0.0100		% by Weight	⊗	10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-10.0**

Date Collected: 10/06/11 12:30  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-3**

Matrix: Solid  
Percent Solids: 63.9

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		72.5		ug/kg dry	⊗	10/06/11 12:30	10/12/11 14:21	100
Toluene	ND		181		ug/kg dry	⊗	10/06/11 12:30	10/12/11 14:21	100
Ethylbenzene	ND		181		ug/kg dry	⊗	10/06/11 12:30	10/12/11 14:21	100
o-Xylene	ND		362		ug/kg dry	⊗	10/06/11 12:30	10/12/11 14:21	100
m,p-Xylene	ND		362		ug/kg dry	⊗	10/06/11 12:30	10/12/11 14:21	100
Xylenes (total)	ND		362		ug/kg dry	⊗	10/06/11 12:30	10/12/11 14:21	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>	97.8		70 - 135				10/06/11 12:30	10/12/11 14:21	100
<i>1,2-DCA-d4</i>	109		60 - 145				10/06/11 12:30	10/12/11 14:21	100
<i>Toluene-d8</i>	106		70 - 140				10/06/11 12:30	10/12/11 14:21	100
<i>4-BFB</i>	100		70 - 140				10/06/11 12:30	10/12/11 14:21	100

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Acenaphthylene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Anthracene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Benzo (a) anthracene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Benzo (a) pyrene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
<b>Benzo (b) fluoranthene</b>	<b>33.7</b>	<b>ID3</b>	20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Benzo (ghi) perylene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Benzo (k) fluoranthene	ND	ID3	20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Chrysene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Dibenzo (a,h) anthracene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
<b>Fluoranthene</b>	<b>35.0</b>		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Fluorene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Indeno (1,2,3-cd) pyrene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Naphthalene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
Phenanthrene	ND		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
<b>Pyrene</b>	<b>60.0</b>		20.9		ug/kg dry	⊗	10/11/11 07:02	10/12/11 15:58	1.00
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Fluorene-d10</i>	80.1		24 - 125				10/11/11 07:02	10/12/11 15:58	1.00
<i>Pyrene-d10</i>	110		41 - 141				10/11/11 07:02	10/12/11 15:58	1.00
<i>Benzo (a) pyrene-d12</i>	81.4		38 - 143				10/11/11 07:02	10/12/11 15:58	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		19.4		mg/kg dry	⊗	10/11/11 22:00	10/12/11 00:24	1.00
Residual Range/Heavy Oil Organics	ND		38.8		mg/kg dry	⊗	10/11/11 22:00	10/12/11 00:24	1.00
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>1-Chlorooctadecane</i>	73.0		50 - 150				10/11/11 22:00	10/12/11 00:24	1.00

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		14.5		mg/kg dry	⊗	10/06/11 12:30	10/12/11 16:30	50.0
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-TFT (FID)</i>	121		50 - 150				10/06/11 12:30	10/12/11 16:30	50.0

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-10.0**

**Lab Sample ID: 580-29152-3**

Date Collected: 10/06/11 12:30  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 63.9

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	63.9		0.0100		% by Weight		10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-16.0**

Date Collected: 10/06/11 12:40  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-4**

Matrix: Solid

Percent Solids: 69.4

**Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		7740		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Benzene	ND		61.9		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Bromobenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Bromochloromethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Bromodichloromethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Bromoform	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Bromomethane	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
2-Butanone (MEK)	ND		3100		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
n-Butylbenzene	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
sec-Butylbenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
tert-Butylbenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Carbon disulfide	ND		3100		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Carbon tetrachloride	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Chlorobenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Chloroethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Chloroform	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Chloromethane	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
2-Chlorotoluene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
4-Chlorotoluene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,2-Dibromo-3-chloropropane	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Dibromochloromethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,2-Dibromoethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Dibromomethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,2-Dichlorobenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,3-Dichlorobenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,4-Dichlorobenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Dichlorodifluoromethane	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,1-Dichloroethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,2-Dichloroethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,1-Dichloroethene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
cis-1,2-Dichloroethene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
trans-1,2-Dichloroethene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,2-Dichloropropane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,3-Dichloropropane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
2,2-Dichloropropane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,1-Dichloropropene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
cis-1,3-Dichloropropene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
trans-1,3-Dichloropropene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Ethylbenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Hexachlorobutadiene	ND		1240		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
2-Hexanone	ND		3100		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Isopropylbenzene	ND		619		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
p-Isopropyltoluene	ND		619		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
4-Methyl-2-pentanone	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Methyl tert-butyl ether	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Methylene chloride	ND		1550		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Naphthalene	ND		619		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
n-Propylbenzene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
Styrene	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100
1,1,1,2-Tetrachloroethane	ND		310		ug/kg dry	⊗	10/06/11 12:40	10/12/11 14:42	100

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-16.0**

**Lab Sample ID: 580-29152-4**

Date Collected: 10/06/11 12:40  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 69.4

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
Tetrachloroethene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
Toluene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,2,3-Trichlorobenzene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,2,4-Trichlorobenzene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,1,1-Trichloroethane	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,1,2-Trichloroethane	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
Trichloroethene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
Trichlorofluoromethane	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,2,3-Trichloropropane	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,2,4-Trimethylbenzene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
1,3,5-Trimethylbenzene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
Vinyl chloride	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
o-Xylene	ND		310		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
m,p-Xylene	ND		619		ug/kg dry	☀	10/06/11 12:40	10/12/11 14:42	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	104		70 - 135				10/06/11 12:40	10/12/11 14:42	100
1,2-DCA-d4	119		60 - 145				10/06/11 12:40	10/12/11 14:42	100
Toluene-d8	111		70 - 140				10/06/11 12:40	10/12/11 14:42	100
4-BFB	106		70 - 140				10/06/11 12:40	10/12/11 14:42	100

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		48.0		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Aroclor 1221	ND		96.5		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Aroclor 1232	ND		48.0		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Aroclor 1242	ND		48.0		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Aroclor 1248	ND		48.0		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Aroclor 1254	ND		48.0		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Aroclor 1260	ND		48.0		ug/kg dry	☀	10/11/11 07:05	10/12/11 20:31	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl	89.9		16 - 149				10/11/11 07:05	10/12/11 20:31	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Acenaphthylene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Anthracene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Benzo (a) anthracene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Benzo (a) pyrene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Benzo (b) fluoranthene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Benzo (ghi) perylene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Benzo (k) fluoranthene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Chrysene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Dibenzo (a,h) anthracene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Fluoranthene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Fluorene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Indeno (1,2,3-cd) pyrene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00
Naphthalene	ND		19.3		ug/kg dry	☀	10/11/11 07:02	10/13/11 10:57	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-16.0**

**Lab Sample ID: 580-29152-4**

Date Collected: 10/06/11 12:40  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 69.4

1

2

3

4

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11

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		19.3		ug/kg dry	⊗	10/11/11 07:02	10/13/11 10:57	1.00
Pyrene	ND		19.3		ug/kg dry	⊗	10/11/11 07:02	10/13/11 10:57	1.00
<b>Surrogate</b>									
Fluorene-d10	83.9		24 - 125				10/11/11 07:02	10/13/11 10:57	1.00
Pyrene-d10	95.6		41 - 141				10/11/11 07:02	10/13/11 10:57	1.00
Benzo (a) pyrene-d12	88.4		38 - 143				10/11/11 07:02	10/13/11 10:57	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		17.9		mg/kg dry	⊗	10/11/11 22:00	10/12/11 00:42	1.00
Residual Range/Heavy Oil Organics	ND	Q13	35.7		mg/kg dry	⊗	10/11/11 22:00	10/12/11 00:42	1.00
<b>Surrogate</b>									
1-Chlorooctadecane	60.5		50 - 150				10/11/11 22:00	10/12/11 00:42	1.00

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		12.4		mg/kg dry	⊗	10/06/11 12:40	10/12/11 17:26	50.0
<b>Surrogate</b>									
a,a,a-TFT (FID)	118		50 - 150				10/06/11 12:40	10/12/11 17:26	50.0

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	69.4		0.0100		% by Weight	D	10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2B-4.7**

Date Collected: 10/06/11 13:40  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-6**  
Matrix: Solid  
Percent Solids: 92.7

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	768		94.2		ug/kg dry	⊗	10/06/11 13:40	10/12/11 15:04	100
Toluene	3570		236		ug/kg dry	⊗	10/06/11 13:40	10/12/11 15:04	100
Ethylbenzene	1320		236		ug/kg dry	⊗	10/06/11 13:40	10/12/11 15:04	100
o-Xylene	3790		471		ug/kg dry	⊗	10/06/11 13:40	10/12/11 15:04	100
m,p-Xylene	5560		471		ug/kg dry	⊗	10/06/11 13:40	10/12/11 15:04	100
Xylenes (total)	9360		471		ug/kg dry	⊗	10/06/11 13:40	10/12/11 15:04	100
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane		99.8		70 - 135			10/06/11 13:40	10/12/11 15:04	100
1,2-DCA-d4		112		60 - 145			10/06/11 13:40	10/12/11 15:04	100
Toluene-d8		107		70 - 140			10/06/11 13:40	10/12/11 15:04	100
4-BFB		98.8		70 - 140			10/06/11 13:40	10/12/11 15:04	100

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	184		18.8		mg/kg dry	⊗	10/06/11 13:40	10/12/11 15:35	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-TFT (FID)	102		50 - 150				10/06/11 13:40	10/12/11 15:35	50.0

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	92.7		0.0100		% by Weight	D	10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2D-5.2**

Date Collected: 10/06/11 14:10  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-7**

Matrix: Solid  
Percent Solids: 95.5

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		44.8		ug/kg dry	⊗	10/06/11 14:10	10/12/11 15:26	100
Toluene	ND		112		ug/kg dry	⊗	10/06/11 14:10	10/12/11 15:26	100
Ethylbenzene	ND		112		ug/kg dry	⊗	10/06/11 14:10	10/12/11 15:26	100
o-Xylene	ND		224		ug/kg dry	⊗	10/06/11 14:10	10/12/11 15:26	100
m,p-Xylene	ND		224		ug/kg dry	⊗	10/06/11 14:10	10/12/11 15:26	100
Xylenes (total)	ND		224		ug/kg dry	⊗	10/06/11 14:10	10/12/11 15:26	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>	101		70 - 135				10/06/11 14:10	10/12/11 15:26	100
<i>1,2-DCA-d4</i>	112		60 - 145				10/06/11 14:10	10/12/11 15:26	100
<i>Toluene-d8</i>	105		70 - 140				10/06/11 14:10	10/12/11 15:26	100
<i>4-BFB</i>	99.5		70 - 140				10/06/11 14:10	10/12/11 15:26	100

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		8.97		mg/kg dry	⊗	10/06/11 14:10	10/12/11 19:46	50.0
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-TFT (FID)</i>	106		50 - 150				10/06/11 14:10	10/12/11 19:46	50.0

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	95.5		0.0100		% by Weight	D	10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2E-5.2**

Date Collected: 10/06/11 14:30  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-8**  
Matrix: Solid  
Percent Solids: 93

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		48.9		ug/kg dry	⊗	10/06/11 14:30	10/12/11 15:47	100
Toluene	ND		122		ug/kg dry	⊗	10/06/11 14:30	10/12/11 15:47	100
Ethylbenzene	ND		122		ug/kg dry	⊗	10/06/11 14:30	10/12/11 15:47	100
o-Xylene	ND		245		ug/kg dry	⊗	10/06/11 14:30	10/12/11 15:47	100
m,p-Xylene	ND		245		ug/kg dry	⊗	10/06/11 14:30	10/12/11 15:47	100
Xylenes (total)	ND		245		ug/kg dry	⊗	10/06/11 14:30	10/12/11 15:47	100
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>	100		70 - 135				10/06/11 14:30	10/12/11 15:47	100
<i>1,2-DCA-d4</i>	113		60 - 145				10/06/11 14:30	10/12/11 15:47	100
<i>Toluene-d8</i>	107		70 - 140				10/06/11 14:30	10/12/11 15:47	100
<i>4-BFB</i>	101		70 - 140				10/06/11 14:30	10/12/11 15:47	100

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		9.79		mg/kg dry	⊗	10/06/11 14:30	10/12/11 20:14	50.0
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-TFT (FID)</i>	103		50 - 150				10/06/11 14:30	10/12/11 20:14	50.0

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	93.0		0.0100		% by Weight	D	10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2F-2.2**

Date Collected: 10/06/11 15:00

Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-9**

Matrix: Solid

Percent Solids: 95.1

**Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		58.5		ug/kg dry	⊗	10/06/11 15:00	10/12/11 16:09	100
Toluene	ND		146		ug/kg dry	⊗	10/06/11 15:00	10/12/11 16:09	100
Ethylbenzene	ND		146		ug/kg dry	⊗	10/06/11 15:00	10/12/11 16:09	100
o-Xylene	ND		292		ug/kg dry	⊗	10/06/11 15:00	10/12/11 16:09	100
m,p-Xylene	ND		292		ug/kg dry	⊗	10/06/11 15:00	10/12/11 16:09	100
Xylenes (total)	ND		292		ug/kg dry	⊗	10/06/11 15:00	10/12/11 16:09	100
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>		98.0		70 - 135			10/06/11 15:00	10/12/11 16:09	100
<i>1,2-DCA-d4</i>		110		60 - 145			10/06/11 15:00	10/12/11 16:09	100
<i>Toluene-d8</i>		106		70 - 140			10/06/11 15:00	10/12/11 16:09	100
<i>4-BFB</i>		99.0		70 - 140			10/06/11 15:00	10/12/11 16:09	100

**Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		11.7		mg/kg dry	⊗	10/06/11 15:00	10/12/11 20:42	50.0
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-TFT (FID)</i>		104		50 - 150			10/06/11 15:00	10/12/11 20:42	50.0

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	95.1		0.0100		% by Weight	D	10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB3A-7.6**

Date Collected: 10/06/11 15:30  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-10**

Matrix: Solid

Percent Solids: 79.1

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		49.3		ug/kg dry	⊗	10/06/11 15:30	10/12/11 16:31	100
Toluene	ND		123		ug/kg dry	⊗	10/06/11 15:30	10/12/11 16:31	100
Ethylbenzene	ND		123		ug/kg dry	⊗	10/06/11 15:30	10/12/11 16:31	100
o-Xylene	ND		247		ug/kg dry	⊗	10/06/11 15:30	10/12/11 16:31	100
m,p-Xylene	ND		247		ug/kg dry	⊗	10/06/11 15:30	10/12/11 16:31	100
Xylenes (total)	ND		247		ug/kg dry	⊗	10/06/11 15:30	10/12/11 16:31	100
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Dibromofluoromethane</i>	98.0			70 - 135			10/06/11 15:30	10/12/11 16:31	100
<i>1,2-DCA-d4</i>	111			60 - 145			10/06/11 15:30	10/12/11 16:31	100
<i>Toluene-d8</i>	106			70 - 140			10/06/11 15:30	10/12/11 16:31	100
<i>4-BFB</i>	102			70 - 140			10/06/11 15:30	10/12/11 16:31	100

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Acenaphthylene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Anthracene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Benzo (a) anthracene</b>	<b>24.0</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Benzo (a) pyrene</b>	<b>19.6</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Benzo (b) fluoranthene</b>	<b>21.9</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Benzo (ghi) perylene</b>	<b>17.4</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Benzo (k) fluoranthene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Chrysene</b>	<b>33.6</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Dibenzo (a,h) anthracene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Fluoranthene</b>	<b>64.1</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Fluorene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Indeno (1,2,3-cd) pyrene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Naphthalene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
Phenanthrene	ND		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Pyrene</b>	<b>72.0</b>		16.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:20	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Fluorene-d10</i>	64.9			24 - 125			10/11/11 07:02	10/12/11 17:20	1.00
<i>Pyrene-d10</i>	95.8			41 - 141			10/11/11 07:02	10/12/11 17:20	1.00
<i>Benzo (a) pyrene-d12</i>	81.6			38 - 143			10/11/11 07:02	10/12/11 17:20	1.00

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics</b>	<b>15.7</b>		15.7		mg/kg dry	⊗	10/11/11 22:00	10/12/11 01:01	1.00
<b>Residual Range/Heavy Oil Organics</b>	<b>38.4</b>	<b>Q10</b>	31.4		mg/kg dry	⊗	10/11/11 22:00	10/12/11 01:01	1.00
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctadecane	77.8			50 - 150			10/11/11 22:00	10/12/11 01:01	1.00

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		9.87		mg/kg dry	⊗	10/06/11 15:30	10/12/11 21:10	50.0
<b>Surrogate</b>		<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-TFT (FID)	112			50 - 150			10/06/11 15:30	10/12/11 21:10	50.0

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB3A-7.6**

Date Collected: 10/06/11 15:30

Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-10**

Matrix: Solid

Percent Solids: 79.1

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	79.1		0.0100		% by Weight		10/11/11 15:29	10/12/11 07:30	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB3A-14.5**

Date Collected: 10/06/11 15:40  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-11**

Matrix: Solid  
Percent Solids: 58.8

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		74.1		ug/kg dry	⊗	10/06/11 15:40	10/12/11 16:53	100
Toluene	ND		185		ug/kg dry	⊗	10/06/11 15:40	10/12/11 16:53	100
Ethylbenzene	ND		185		ug/kg dry	⊗	10/06/11 15:40	10/12/11 16:53	100
o-Xylene	ND		371		ug/kg dry	⊗	10/06/11 15:40	10/12/11 16:53	100
m,p-Xylene	ND		371		ug/kg dry	⊗	10/06/11 15:40	10/12/11 16:53	100
Xylenes (total)	ND		371		ug/kg dry	⊗	10/06/11 15:40	10/12/11 16:53	100
<b>Surrogate</b>		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>Dibromofluoromethane</i>		97.0		70 - 135			10/06/11 15:40	10/12/11 16:53	100
<i>1,2-DCA-d4</i>		109		60 - 145			10/06/11 15:40	10/12/11 16:53	100
<i>Toluene-d8</i>		105		70 - 140			10/06/11 15:40	10/12/11 16:53	100
<i>4-BFB</i>		99.4		70 - 140			10/06/11 15:40	10/12/11 16:53	100

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		55.7		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
Aroclor 1221	ND		112		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
Aroclor 1232	ND		55.7		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
Aroclor 1242	ND		55.7		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
Aroclor 1248	ND		55.7		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
Aroclor 1254	ND		55.7		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
Aroclor 1260	ND		55.7		ug/kg dry	⊗	10/11/11 07:05	10/12/11 20:54	1.00
<b>Surrogate</b>		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>Decachlorobiphenyl</i>		90.4		16 - 149			10/11/11 07:05	10/12/11 20:54	1.00

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Acenaphthylene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Anthracene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Benzo (a) anthracene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Benzo (a) pyrene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Benzo (b) fluoranthene	ND	ID3	22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Benzo (ghi) perylene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Benzo (k) fluoranthene	ND	ID3	22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Chrysene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Dibenzo (a,h) anthracene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
<b>Fluoranthene</b>		50.8		22.8	ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Fluorene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Indeno (1,2,3-cd) pyrene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Naphthalene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
Phenanthrene	ND		22.8		ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
<b>Pyrene</b>		47.8		22.8	ug/kg dry	⊗	10/11/11 07:02	10/12/11 17:51	1.00
<b>Surrogate</b>		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>Fluorene-d10</i>		70.4		24 - 125			10/11/11 07:02	10/12/11 17:51	1.00
<i>Pyrene-d10</i>		107		41 - 141			10/11/11 07:02	10/12/11 17:51	1.00
<i>Benzo (a) pyrene-d12</i>		77.5		38 - 143			10/11/11 07:02	10/12/11 17:51	1.00

# Client Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB3A-14.5**

Date Collected: 10/06/11 15:40  
Date Received: 10/07/11 16:45

**Lab Sample ID: 580-29152-11**

Matrix: Solid

Percent Solids: 58.8

**Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		21.1		mg/kg dry	⊗	10/11/11 22:00	10/12/11 01:57	1.00
Residual Range/Heavy Oil Organics	68.1	Q13	42.2		mg/kg dry	⊗	10/11/11 22:00	10/12/11 01:57	1.00
<b>Surrogate</b>									
1-Chlorooctadecane									
		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
		70.0		50 - 150			10/11/11 22:00	10/12/11 01:57	1.00

**Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		14.8		mg/kg dry	⊗	10/06/11 15:40	10/12/11 21:37	50.0
<b>Surrogate</b>									
a,a,a-TFT (FID)									
		% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
		123		50 - 150			10/06/11 15:40	10/12/11 21:37	50.0

**Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	58.8		0.0100		% by Weight	⊗	10/11/11 15:29	10/12/11 07:30	1.00

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: EPA 8260B - Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

**Lab Sample ID:** 11J0353-BLK1  
**Matrix:** Soil  
**Analysis Batch:** 11J0353

**Client Sample ID:** Method Blank  
**Prep Type:** Total  
**Prep Batch:** 11J0353\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		19.9		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Toluene	ND		49.8		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Ethylbenzene	ND		49.8		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
o-Xylene	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
m,p-Xylene	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Xylenes (total)	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100

Surrogate	Blank	Blank	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Dibromofluoromethane	99.0		70 - 135	10/12/11 08:25	10/12/11 09:26	100
1,2-DCA-d4	113		60 - 145	10/12/11 08:25	10/12/11 09:26	100
Toluene-d8	105		70 - 140	10/12/11 08:25	10/12/11 09:26	100
4-BFB	98.8		70 - 140	10/12/11 08:25	10/12/11 09:26	100

**Lab Sample ID:** 11J0353-BS1  
**Matrix:** Soil  
**Analysis Batch:** 11J0353

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total  
**Prep Batch:** 11J0353\_P

Analyte	Spike		LCS	LCS	D	% Rec	Limits
	Added	Result	Qualifier	Unit			
Benzene	2000	2060		ug/kg wet		103	82 - 125
Toluene	2000	2110		ug/kg wet		106	80 - 125
Ethylbenzene	2000	1990		ug/kg wet		99.8	80 - 120
o-Xylene	2000	1870		ug/kg wet		93.7	80 - 126
m,p-Xylene	3990	3990		ug/kg wet		100	80 - 120
Xylenes (total)	5990	5860		ug/kg wet		97.9	70 - 130

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Dibromofluoromethane	113		70 - 135			
1,2-DCA-d4	120		60 - 145			
Toluene-d8	112		70 - 140			
4-BFB	102		70 - 140			

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B

**Lab Sample ID:** 11J0353-BLK1  
**Matrix:** Soil  
**Analysis Batch:** 11J0353

**Client Sample ID:** Method Blank  
**Prep Type:** Total  
**Prep Batch:** 11J0353\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		2490		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Benzene	ND		19.9		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Bromobenzene	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Bromochloromethane	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Bromodichloromethane	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Bromoform	ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Bromomethane	ND		498		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
2-Butanone (MEK)	ND		995		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
n-Butylbenzene	ND		498		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11J0353-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0353**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0353\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
tert-Butylbenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Carbon disulfide			ND		995		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Carbon tetrachloride			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Chlorobenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Chloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Chloroform			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Chloromethane			ND		498		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
2-Chlorotoluene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
4-Chlorotoluene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2-Dibromo-3-chloropropane			ND		498		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Dibromochloromethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2-Dibromoethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Dibromomethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2-Dichlorobenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,3-Dichlorobenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,4-Dichlorobenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Dichlorodifluoromethane			ND		498		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1-Dichloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2-Dichloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1-Dichloroethene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
cis-1,2-Dichloroethene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
trans-1,2-Dichloroethene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2-Dichloropropane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,3-Dichloropropane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
2,2-Dichloropropane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1-Dichloropropene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
cis-1,2-Dichloropropene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
trans-1,3-Dichloropropene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Ethylbenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Hexachlorobutadiene			ND		398		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
2-Hexanone			ND		995		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Isopropylbenzene			ND		199		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
p-Isopropyltoluene			ND		199		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
4-Methyl-2-pentanone			ND		498		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Methyl tert-butyl ether			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Methylene chloride			ND		498		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Naphthalene			ND		199		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
n-Propylbenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Styrene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1,1,2-Tetrachloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1,2,2-Tetrachloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Tetrachloroethene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Toluene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2,3-Trichlorobenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,2,4-Trichlorobenzene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1,1-Trichloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
1,1,2-Trichloroethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Trichloroethene			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100
Trichlorofluoromethane			ND		99.5		ug/kg wet	10/12/11 08:25	10/12/11 09:26		100

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11J0353-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0353**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0353\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane			ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
1,2,4-Trimethylbenzene			ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
1,3,5-Trimethylbenzene			ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Vinyl chloride			ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
o-Xylene			ND		99.5		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
m,p-Xylene			ND		199		ug/kg wet		10/12/11 08:25	10/12/11 09:26	100
Surrogate	Blank	Blank	% Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
Dibromofluoromethane			99.0		70 - 135				10/12/11 08:25	10/12/11 09:26	100
1,2-DCA-d4			113		60 - 145				10/12/11 08:25	10/12/11 09:26	100
Toluene-d8			105		70 - 140				10/12/11 08:25	10/12/11 09:26	100
4-BFB			98.8		70 - 140				10/12/11 08:25	10/12/11 09:26	100

**Lab Sample ID: 11J0353-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0353**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0353\_P**

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec.	
		Result	Qualifier				Limits	
Acetone	9980	10100		ug/kg wet		101	65 - 167	
Benzene	2000	2060		ug/kg wet		103	81.9 - 125	
Bromobenzene	2000	1890		ug/kg wet		94.4	80 - 120	
Bromochloromethane	2000	2120		ug/kg wet		106	80 - 120	
Bromodichloromethane	2000	2130		ug/kg wet		107	80 - 141	
Bromoform	2000	1700		ug/kg wet		85.3	75 - 151	
Bromomethane	2000	1820		ug/kg wet		91.0	65 - 130	
2-Butanone (MEK)	9980	10600		ug/kg wet		107	68 - 127	
n-Butylbenzene	2000	2100		ug/kg wet		105	90 - 146	
sec-Butylbenzene	2000	1980		ug/kg wet		99.2	80 - 133	
tert-Butylbenzene	2000	2070		ug/kg wet		104	80 - 130	
Carbon disulfide	3990	4100		ug/kg wet		103	67 - 140	
Carbon tetrachloride	2000	2600	L5	ug/kg wet		130	71 - 128	
Chlorobenzene	2000	2150		ug/kg wet		108	79.2 - 125	
Chloroethane	2000	2000		ug/kg wet		100	75 - 125	
Chloroform	2000	2120		ug/kg wet		106	80 - 121	
Chloromethane	2000	2130		ug/kg wet		107	42 - 150	
2-Chlorotoluene	2000	1860		ug/kg wet		93.4	80 - 120	
4-Chlorotoluene	2000	1920		ug/kg wet		96.3	80 - 126	
1,2-Dibromo-3-chloropropane	2000	1700		ug/kg wet		85.0	61 - 128	
Dibromochloromethane	2000	1940		ug/kg wet		97.4	75 - 125	
1,2-Dibromoethane	2000	2230		ug/kg wet		112	80 - 124	
Dibromomethane	2000	2160		ug/kg wet		108	80 - 120	
1,2-Dichlorobenzene	2000	1900		ug/kg wet		95.0	80 - 120	
1,3-Dichlorobenzene	2000	2010		ug/kg wet		101	80 - 126	
1,4-Dichlorobenzene	2000	1820		ug/kg wet		90.9	77 - 121	
Dichlorodifluoromethane	2000	2490	L5	ug/kg wet		124	75 - 120	
1,1-Dichloroethane	2000	2130		ug/kg wet		107	80 - 120	
1,2-Dichloroethane	2000	2210		ug/kg wet		111	80 - 120	
1,1-Dichloroethene	2000	2060		ug/kg wet		103	66.1 - 125	
cis-1,2-Dichloroethene	2000	2150		ug/kg wet		108	75 - 125	

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: EPA 8260B - Volatile Organic Compounds per EPA Method 8260B (Continued)

**Lab Sample ID: 11J0353-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0353**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0353\_P**

Analyte	Spike Added	LCS		Unit	D	% Rec	Limits	% Rec.
		Result	Qualifier					
trans-1,2-Dichloroethene	2000	2130		ug/kg wet		107	75 - 125	
1,2-Dichloropropane	2000	2140		ug/kg wet		107	82 - 125	
1,3-Dichloropropane	2000	2250		ug/kg wet		113	75 - 129	
2,2-Dichloropropane	2000	2490		ug/kg wet		125	72 - 132	
1,1-Dichloropropene	2000	2180		ug/kg wet		109	79 - 126	
cis-1,3-Dichloropropene	2000	2230		ug/kg wet		112	80 - 126	
trans-1,3-Dichloropropene	2000	2030		ug/kg wet		102	67 - 146	
Ethylbenzene	2000	1990		ug/kg wet		99.8	82 - 123	
Hexachlorobutadiene	2000	2340		ug/kg wet		117	80 - 152	
2-Hexanone	9980	11200		ug/kg wet		112	57 - 120	
Isopropylbenzene	2000	1940		ug/kg wet		97.0	82 - 128	
p-Isopropyltoluene	2000	2040		ug/kg wet		102	80 - 120	
4-Methyl-2-pentanone	9980	10800		ug/kg wet		108	52 - 120	
Methyl tert-butyl ether	2000	2270		ug/kg wet		114	75 - 125	
Methylene chloride	2000	2180		ug/kg wet		109	75 - 125	
Naphthalene	2000	1930		ug/kg wet		96.7	80 - 130	
n-Propylbenzene	2000	1990		ug/kg wet		99.5	80 - 120	
Styrene	2000	2080		ug/kg wet		104	80 - 123	
1,1,1,2-Tetrachloroethane	2000	2320		ug/kg wet		116	83 - 128	
1,1,2,2-Tetrachloroethane	2000	1810		ug/kg wet		90.9	72 - 135	
Tetrachloroethene	2000	2180		ug/kg wet		109	80 - 124	
Toluene	2000	2110		ug/kg wet		106	80 - 125	
1,2,3-Trichlorobenzene	2000	2050		ug/kg wet		103	78 - 143	
1,2,4-Trichlorobenzene	2000	2020		ug/kg wet		101	83 - 149	
1,1,1-Trichloroethane	2000	2330		ug/kg wet		116	80 - 124	
1,1,2-Trichloroethane	2000	2140		ug/kg wet		107	80 - 125	
Trichloroethene	2000	2130		ug/kg wet		106	76 - 125	
Trichlorofluoromethane	2000	2350		ug/kg wet		118	56 - 147	
1,2,3-Trichloropropane	2000	1850		ug/kg wet		92.5	67 - 126	
1,2,4-Trimethylbenzene	2000	1970		ug/kg wet		98.5	81 - 134	
1,3,5-Trimethylbenzene	2000	2080		ug/kg wet		104	82 - 136	
Vinyl chloride	2000	1210		ug/kg wet		60.8	10 - 140	
o-Xylene	2000	1870		ug/kg wet		93.7	80 - 126	
m,p-Xylene	3990	3990		ug/kg wet		100	80 - 120	

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
Dibromofluoromethane	113		70 - 135
1,2-DCA-d4	120		60 - 145
Toluene-d8	112		70 - 140
4-BFB	102		70 - 140

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082

**Lab Sample ID: 11J0310-BLK1**

**Matrix: Soil**

**Analysis Batch: U003203**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0310\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND										
Aroclor 1016			ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: EPA 8082 - Polychlorinated Biphenyls per EPA Method 8082 (Continued)

**Lab Sample ID: 11J0310-BLK1**

**Matrix: Soil**

**Analysis Batch: U003203**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0310\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1221	ND		66.0		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1232	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1242	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1248	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1254	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
Aroclor 1260	ND		32.8		ug/kg wet		10/11/11 07:05	10/12/11 12:52	1.00
<b>Surrogate</b>									
<i>Decachlorobiphenyl</i>	<i>Blank</i>	<i>Blank</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	% Recovery	Qualifier	Limits				10/11/11 07:05	10/12/11 12:52	1.00
	101		16 - 149						

**Lab Sample ID: 11J0310-BS1**

**Matrix: Soil**

**Analysis Batch: U003203**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0310\_P**

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec	Limits	% Rec.
		Result	Qualifier					
Aroclor 1016	329	321		ug/kg wet		97.6	57 - 135	
Aroclor 1260	329	323		ug/kg wet		98.3	60 - 135	
<b>Surrogate</b>								
<i>Decachlorobiphenyl</i>	<i>Blank</i>	<i>Blank</i>	<i>Limits</i>					
	% Recovery	Qualifier	Limits					
	101		16 - 149					

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM

**Lab Sample ID: 11J0309-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Acenaphthylene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Anthracene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (a) anthracene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (a) pyrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (b) fluoranthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (ghi) perylene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Benzo (k) fluoranthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Chrysene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Dibenzo (a,h) anthracene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Fluoranthene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Fluorene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Indeno (1,2,3-cd) pyrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Naphthalene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Phenanthrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
Pyrene	ND		13.3		ug/kg wet		10/11/11 07:02	10/11/11 20:01	1.00
<b>Surrogate</b>									
<i>Fluorene-d10</i>	<i>Blank</i>	<i>Blank</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	% Recovery	Qualifier	Limits				10/11/11 07:02	10/11/11 20:01	1.00
	81.6		24 - 125						
<i>Pyrene-d10</i>							10/11/11 07:02	10/11/11 20:01	1.00
			91.4		41 - 141				

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: EPA 8270m - Polynuclear Aromatic Compounds per EPA 8270M-SIM (Continued)

**Lab Sample ID: 11J0309-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Benzo (a) pyrene-d12			85.6		38 - 143	10/11/11 07:02	10/11/11 20:01	1.00

**Lab Sample ID: 11J0309-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0309**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0309\_P**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	Limits	Prepared
	Added	Result	Qualifier					
Acenaphthene	166	147		ug/kg wet		88.9	33 - 139	
Benzo (a) pyrene	166	163		ug/kg wet		98.2	45 - 149	
Pyrene	166	156		ug/kg wet		94.1	39 - 138	

Surrogate	LCS	LCS	% Recovery	Qualifier	Limits	Prepared
Fluorene-d10	87.9	24 - 125				
Pyrene-d10	90.6	41 - 141				
Benzo (a) pyrene-d12	95.1	38 - 143				

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

**Lab Sample ID: 11J0344-BLK1**

**Matrix: Soil**

**Analysis Batch: 11J0344**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11J0344\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics			ND		12.4		mg/kg wet		10/11/11 22:00	10/11/11 22:51	1.00
Residual Range/Heavy Oil Organics			ND		24.8		mg/kg wet		10/11/11 22:00	10/11/11 22:51	1.00

Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane			90.2		50 - 150	10/11/11 22:00	10/11/11 22:51	1.00

**Lab Sample ID: 11J0344-BS1**

**Matrix: Soil**

**Analysis Batch: 11J0344**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11J0344\_P**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	Limits	Prepared
	Added	Result	Qualifier					
Diesel Range Organics	125	124		mg/kg wet		99.3	50 - 150	
Residual Range/Heavy Oil Organics	74.7	64.2		mg/kg wet		85.9	50 - 150	

Surrogate	LCS	LCS	% Recovery	Qualifier	Limits	Prepared
1-Chlorooctadecane			107		60 - 120	

**Lab Sample ID: 11J0344-DUP1**

**Matrix: Soil**

**Analysis Batch: 11J0344**

**Client Sample ID: 100611-FB2A-5.3**

**Prep Type: Total**

**Prep Batch: 11J0344\_P**

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier						
Diesel Range Organics	320	Q12		225	Q12	mg/kg dry	⊗	35.1 40
Residual Range/Heavy Oil Organics	569	Q10		402	Q10	mg/kg dry	⊗	34.6 40

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: NWTPH-Dx - Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method (Continued)

**Lab Sample ID:** 11J0344-DUP1

**Matrix:** Soil

**Analysis Batch:** 11J0344

**Client Sample ID:** 100611-FB2A-5.3

**Prep Type:** Total

**Prep Batch:** 11J0344\_P

Surrogate	Duplicate	Duplicate	Limits
	% Recovery	Qualifier	
1-Chlorooctadecane	84.2		50 - 150

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

**Lab Sample ID:** 11J0372-BLK1

**Matrix:** Soil

**Analysis Batch:** 11J0372

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 11J0372\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Hydrocarbons	ND		3.92		mg/kg wet		10/12/11 13:10	10/12/11 14:06	50.0
<hr/>									
Surrogate	Blank	Blank	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
a,a,a-TFT (FID)	93.1								

**Lab Sample ID:** 11J0372-BS1

**Matrix:** Soil

**Analysis Batch:** 11J0372

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 11J0372\_P

Analyte	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Added	Result	Qualifier				
Gasoline Range Hydrocarbons	24.8	25.3		mg/kg wet		102	70 - 130
<hr/>							
Surrogate	LCS	LCS	% Recovery	Qualifier	Limits	% Rec.	Limits
a,a,a-TFT (FID)	99.6						

**Lab Sample ID:** 11J0372-MS1

**Matrix:** Soil

**Analysis Batch:** 11J0372

**Client Sample ID:** 100611-FB2A-5.3

**Prep Type:** Total

**Prep Batch:** 11J0372\_P

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	% Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Gasoline Range Hydrocarbons	143		99.5	244		mg/kg dry	⊗	102	65 - 130
<hr/>									
Surrogate	Matrix Spike	Matrix Spike	% Recovery	Qualifier	Limits	Unit	D	% Rec.	Limits
a,a,a-TFT (FID)	110								

**Lab Sample ID:** 11J0372-DUP1

**Matrix:** Soil

**Analysis Batch:** 11J0372

**Client Sample ID:** 100611-FB2A-10.0

**Prep Type:** Total

**Prep Batch:** 11J0372\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Gasoline Range Hydrocarbons	ND				mg/kg dry	⊗		40
<hr/>								
Surrogate	Duplicate	Duplicate	% Recovery	Qualifier	Limits	Unit	D	RPD
a,a,a-TFT (FID)	119							

# QC Sample Results

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

## Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method (Continued)

Lab Sample ID: 11J0372-DUP2

Matrix: Soil

Analysis Batch: 11J0372

Client Sample ID: 100611-FB2A-16.0

Prep Type: Total

Prep Batch: 11J0372\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Gasoline Range Hydrocarbons	ND		ND		mg/kg dry	⊗		40
<i>Duplicate      Duplicate</i>								
Surrogate	Duplicate	Duplicate	% Recovery	Qualifier	Limits			
a,a,a-TFT (FID)			118		50 - 150			

## Method: ASTM D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

Lab Sample ID: 11J0331-DUP1

Matrix: Soil

Analysis Batch: 11J0331

Client Sample ID: 100611-FB2E-5.2

Prep Type: Total

Prep Batch: 11J0331\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
% Solids	93.0		94.2		% by Weight		1.21	20

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: TB-2-100611**

**Lab Sample ID: 580-29152-1**

Matrix: Solid

Date Collected: 10/06/11 08:00

Date Received: 10/07/11 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		0.945	11J0353_P	10/06/11 08:00	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 10:10	BJ	TAL PTL

**Client Sample ID: 100611-FB2A-5.3**

**Lab Sample ID: 580-29152-2**

Matrix: Solid

Date Collected: 10/06/11 12:20

Date Received: 10/07/11 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		3.28	11J0353_P	10/06/11 12:20	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 13:59	BJ	TAL PTL
Total	Prep	EPA 3550		0.986	11J0310_P	10/11/11 07:05	CAD	TAL PTL
Total	Analysis	EPA 8082		1.00	U003203	10/12/11 20:08	PS	TAL PTL
Total	Prep	EPA 3550		0.995	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		2.00	11J0309	10/12/11 15:29	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.991	11J0344_P	10/11/11 22:00	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0344	10/12/11 00:06	NMI	TAL PTL
Total	Prep	EPA 5030B		3.28	11J0372_P	10/06/11 12:20	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 17:54	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100611-FB2A-10.0**

**Lab Sample ID: 580-29152-3**

Matrix: Solid

Date Collected: 10/06/11 12:30

Date Received: 10/07/11 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		1.95	11J0353_P	10/06/11 12:30	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 14:21	BJ	TAL PTL
Total	Prep	EPA 3550		0.997	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 15:58	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.992	11J0344_P	10/11/11 22:00	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0344	10/12/11 00:24	NMI	TAL PTL
Total	Prep	EPA 5030B		1.95	11J0372_P	10/06/11 12:30	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 16:30	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100611-FB2A-16.0**

**Lab Sample ID: 580-29152-4**

Matrix: Solid

Date Collected: 10/06/11 12:40

Date Received: 10/07/11 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		1.84	11J0353_P	10/06/11 12:40	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 14:42	BJ	TAL PTL

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2A-16.0**

**Lab Sample ID: 580-29152-4**

Date Collected: 10/06/11 12:40  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 69.4

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
	Type	Method	Run	Factor	Number	Or Analyzed	
Total	Prep	EPA 3550		0.999	11J0310_P	10/11/11 07:05	CAD
Total	Analysis	EPA 8082		1.00	U003203	10/12/11 20:31	PS
Total	Prep	EPA 3550		0.999	11J0309_P	10/11/11 07:02	CAD
Total	Analysis	EPA 8270m		1.00	11J0309	10/13/11 10:57	NAF
Total	Prep	EPA 3550 Fuels		0.992	11J0344_P	10/11/11 22:00	ELP
Total	Analysis	NWTPH-Dx		1.00	11J0344	10/12/11 00:42	NMI
Total	Prep	EPA 5030B		1.84	11J0372_P	10/06/11 12:40	SYZ
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 17:26	SYZ
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM

**Client Sample ID: 100611-FB2B-4.7**

**Lab Sample ID: 580-29152-6**

Date Collected: 10/06/11 13:40  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 92.7

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
	Type	Method	Run	Factor	Number	Or Analyzed	
Total	Prep	EPA 5035A		4.29	11J0353_P	10/06/11 13:40	ECF
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 15:04	BJ
Total	Prep	EPA 5030B		4.29	11J0372_P	10/06/11 13:40	SYZ
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 15:35	SYZ
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM

**Client Sample ID: 100611-FB2D-5.2**

**Lab Sample ID: 580-29152-7**

Date Collected: 10/06/11 14:10  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 95.5

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
	Type	Method	Run	Factor	Number	Or Analyzed	
Total	Prep	EPA 5035A		2.10	11J0353_P	10/06/11 14:10	ECF
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 15:26	BJ
Total	Prep	EPA 5030B		2.10	11J0372_P	10/06/11 14:10	SYZ
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 19:46	SYZ
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM

**Client Sample ID: 100611-FB2E-5.2**

**Lab Sample ID: 580-29152-8**

Date Collected: 10/06/11 14:30  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 93

Prep Type	Batch	Batch	Dilution	Batch	Prepared	Analyst	Lab
	Type	Method	Run	Factor	Number	Or Analyzed	
Total	Prep	EPA 5035A		2.21	11J0353_P	10/06/11 14:30	ECF
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 15:47	BJ
Total	Prep	EPA 5030B		2.21	11J0372_P	10/06/11 14:30	SYZ
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 20:14	SYZ

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB2E-5.2**

**Lab Sample ID: 580-29152-8**

Date Collected: 10/06/11 14:30  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 93

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100611-FB2F-2.2**

**Lab Sample ID: 580-29152-9**

Date Collected: 10/06/11 15:00  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		2.73	11J0353_P	10/06/11 15:00	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 16:09	BJ	TAL PTL
Total	Prep	EPA 5030B		2.73	11J0372_P	10/06/11 15:00	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 20:42	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100611-FB3A-7.6**

**Lab Sample ID: 580-29152-10**

Date Collected: 10/06/11 15:30  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		1.74	11J0353_P	10/06/11 15:30	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 16:31	BJ	TAL PTL
Total	Prep	EPA 3550		0.994	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 17:20	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.995	11J0344_P	10/11/11 22:00	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0344	10/12/11 01:01	NMI	TAL PTL
Total	Prep	EPA 5030B		1.74	11J0372_P	10/06/11 15:30	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 21:10	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM	TAL PTL

**Client Sample ID: 100611-FB3A-14.5**

**Lab Sample ID: 580-29152-11**

Date Collected: 10/06/11 15:40  
Date Received: 10/07/11 16:45

Matrix: Solid

Percent Solids: 58.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035A		1.77	11J0353_P	10/06/11 15:40	ECF	TAL PTL
Total	Analysis	EPA 8260B		100	11J0353	10/12/11 16:53	BJ	TAL PTL
Total	Prep	EPA 3550		0.984	11J0310_P	10/11/11 07:05	CAD	TAL PTL
Total	Analysis	EPA 8082		1.00	U003203	10/12/11 20:54	PS	TAL PTL
Total	Prep	EPA 3550		0.998	11J0309_P	10/11/11 07:02	CAD	TAL PTL
Total	Analysis	EPA 8270m		1.00	11J0309	10/12/11 17:51	NAF	TAL PTL
Total	Prep	EPA 3550 Fuels		0.992	11J0344_P	10/11/11 22:00	ELP	TAL PTL
Total	Analysis	NWTPH-Dx		1.00	11J0344	10/12/11 01:57	NMI	TAL PTL

## Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

**Client Sample ID: 100611-FB3A-14.5**

**Date Collected: 10/06/11 15:40**

**Date Received: 10/07/11 16:45**

**Lab Sample ID: 580-29152-11**

**Matrix: Solid**

**Percent Solids: 58.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.77	11J0372_P	10/06/11 15:40	SYZ	TAL PTL
Total	Analysis	NW TPH-Gx		50.0	11J0372	10/12/11 21:37	SYZ	TAL PTL
Total	Prep	Dry Weight		1.00	11J0331_P	10/11/11 15:29	JJM	TAL PTL
Total	Analysis	ASTM D2216-80		1.00	11J0331	10/12/11 07:30	JJM	TAL PTL

**Laboratory References:**

TAL PTL = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503) 906-9200

## Certification Summary

Client: Farallon Consulting LLC  
 Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Sample Summary

Client: Farallon Consulting LLC  
Project/Site: Sno Pac Seattle, WA

TestAmerica Job ID: 580-29152-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-29152-1	TB-2-100611	Solid	10/06/11 08:00	10/07/11 16:45
580-29152-2	100611-FB2A-5.3	Solid	10/06/11 12:20	10/07/11 16:45
580-29152-3	100611-FB2A-10.0	Solid	10/06/11 12:30	10/07/11 16:45
580-29152-4	100611-FB2A-16.0	Solid	10/06/11 12:40	10/07/11 16:45
580-29152-6	100611-FB2B-4.7	Solid	10/06/11 13:40	10/07/11 16:45
580-29152-7	100611-FB2D-5.2	Solid	10/06/11 14:10	10/07/11 16:45
580-29152-8	100611-FB2E-5.2	Solid	10/06/11 14:30	10/07/11 16:45
580-29152-9	100611-FB2F-2.2	Solid	10/06/11 15:00	10/07/11 16:45
580-29152-10	100611-FB3A-7.6	Solid	10/06/11 15:30	10/07/11 16:45
580-29152-11	100611-FB3A-14.5	Solid	10/06/11 15:40	10/07/11 16:45

Rush

Short Hold

**Chain of  
Custody Record**

29152

Client Forallon Consulting LLC	Client Contact Don Lance	Date 10-6-11	Chain of Custody Number 14372
Address 975 5th NW Suite 100	Telephone Number (Area Code)/Fax Number 425 245 0800	Lab Number	Page 1 of 1
City Issaquah	State WA	Zip Code	Special Instructions/ Conditions of Receipt  Process samples on a Rush basis
Project Name and Location (State) Sno Pac Seattle WA			
Contract/Purchase Order/Quote No. 879-004			Billing Contact
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)			Matrix
	Date	Time	Air Aqueous Sed. Soil Unpress. H2SO4 HNO3 HCl NaOH ZnAc/ NaOH
1 TB-2-100611	10-6-11	0800	- - - - X -
2 100611-FB2A-5.3		1220	X - X X X X X
3 100611-FB2A-10.0		1230	X X X X - -
4 100611-FB2A-16.0		1240	X - X X X X X
5 100611-FB2B-3.4		1330	----- Hold
6 100611-FB2B-4.7		1340	X X - - - -
7 100611-FB2D-5.2		1410	X X - - - -
8 100611-FB2E-5.2		1430	X X - - - -
9 100611-FB2F-2.2		1500	X X - - - -
10 100611-FB3A-7.6		1530	X X X X - -
11 100611-FB3A-14.5		1540	X X X X - X

Cooler TB Dig IR cor 8.1°C unc 8.1°C  
Cooler Dsc Lg Blue/white @ Lab 1645  
Wet/Packs Packing Bubble Bag  
H2 w/o CS

Cooler  
 Yes  No Cooler Temp: \_\_\_\_\_

Possible Hazard Identification

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal  Disposal By Lab

Return To Client  Archive For \_\_\_\_\_ Months

(A fee may be assessed if samples  
are retained longer than 1 month)

Turn Around Time Required (business days)

24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

QC Requirements (Specify)

1. Relinquished By Sign/Print

John Peterson J. Peterson

Date 10-7-11 Time 0600

1. Received By Sign/Print

Francisco Lung, Jr.

Date 10/7/11 Time 1645

2. Relinquished By Sign/Print

Date \_\_\_\_\_ Time \_\_\_\_\_

2. Received By Sign/Print

Date \_\_\_\_\_ Time \_\_\_\_\_

3. Relinquished By Sign/Print

Date \_\_\_\_\_ Time \_\_\_\_\_

3. Received By Sign/Print

Date \_\_\_\_\_ Time \_\_\_\_\_

Comments

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-29152-1

**Login Number: 29152**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Luna, Francisco**

Question	Answer	Comment	
Radioactivity either was not measured or, if measured, is at or below background	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.	5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the sample IDs on the containers and the COC.	True		11
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A	Not needed.	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	No water voa vial rec'd.	
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.	

## **APPENDIX E**

### **Laboratory Analytical Data, Shoreface Sediments and Seeps**

# 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.

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Seattle, WA 98119-2029  
(206) 285-8282  
[fbi@isomedia.com](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

May 14, 2015

Chip Goodhue, Project Manager  
Aspect Consulting, LLC  
350 Madison Ave. N.  
Bainbridge Island, WA 98110-1810

Dear Mr. Goodhue:

Included are the results from the testing of material submitted on May 8, 2015 from the Sno Pac, F&BI 505130 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com), Parker Wittman  
ASP0514R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

**CASE NARRATIVE**

This case narrative encompasses samples received on May 8, 2015 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Sno Pac, F&BI 505130 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
505130 -01	S-1

The gasoline sample was not received in a 5035 container. The data were flagged accordingly.

A 200.8 internal standard failed the acceptance criteria for sample S-1 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

The 200.8 arsenic matrix spike duplicate exceeded the acceptance criteria. However, the laboratory control sample passed the acceptance criteria, therefore the results are likely due to matrix effect.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/14/15

Date Received: 05/08/15

Project: Sno Pac, F&BI 505130

Date Extracted: 05/11/15

Date Analyzed: 05/11/15

**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)

<u>Sample ID</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
S-1 pc 505130-01	95	109
Method Blank 05-0935 MB	<2	103

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/14/15

Date Received: 05/08/15

Project: Sno Pac, F&BI 505130

Date Extracted: 05/11/15

Date Analyzed: 05/11/15

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 48-168)
S-1 505130-01	17,000	520 x	110
Method Blank 05-949 MB	<50	<250	96

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	S-1	Client:	Aspect Consulting, LLC
Date Received:	05/08/15	Project:	Sno Pac, F&BI 505130
Date Extracted:	05/11/15	Lab ID:	505130-01
Date Analyzed:	05/11/15	Data File:	505130-01.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	131 vo	60	125
Indium	88	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	4.26
Barium	10.2
Cadmium	<1
Chromium	96.7 J
Lead	16.0
Mercury	<1
Selenium	<1
Silver	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	S-1	Client:	Aspect Consulting, LLC
Date Received:	05/08/15	Project:	Sno Pac, F&BI 505130
Date Extracted:	05/11/15	Lab ID:	505130-01 x10
Date Analyzed:	05/11/15	Data File:	505130-01 x10.035
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	88	60	125
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<10
Barium	10.4
Cadmium	<10
Chromium	139
Lead	15.9
Mercury	<10
Selenium	<10
Silver	<10

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Sno Pac, F&BI 505130
Date Extracted:	05/11/15	Lab ID:	I5-293 mb
Date Analyzed:	05/11/15	Data File:	I5-293 mb.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	98	60	125
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/14/15

Date Received: 05/08/15

Project: Sno Pac, F&BI 505130

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

Laboratory Code: 505128-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/14/15

Date Received: 05/08/15

Project: Sno Pac, F&BI 505130

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

Laboratory Code: 505139-01 (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	88	95	73-135	8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	100	74-139

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 05/14/15

Date Received: 05/08/15

Project: Sno Pac, F&BI 505130

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 505130-01 1/10 (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	<10	112	132 vo	67-121	16
Barium	mg/kg (ppm)	50	<10	94	94	74-135	0
Cadmium	mg/kg (ppm)	10	<10	108	108	88-121	0
Chromium	mg/kg (ppm)	50	125	23 b	16 b	57-128	36 b
Lead	mg/kg (ppm)	50	14.3	101	101	59-148	0
Mercury	mg/kg (ppm)	10	<10	102	100	50-150	2
Selenium	mg/kg (ppm)	5	<10	109	108	55-130	1
Silver	mg/kg (ppm)	10	<10	98	100	73-122	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	102	83-113
Barium	mg/kg (ppm)	50	102	85-116
Cadmium	mg/kg (ppm)	10	104	85-114
Chromium	mg/kg (ppm)	50	93	78-121
Lead	mg/kg (ppm)	50	101	80-120
Mercury	mg/kg (ppm)	10	95	70-130
Selenium	mg/kg (ppm)	5	103	87-117
Silver	mg/kg (ppm)	10	101	78-117

# FRIEDMAN & BRUYA, INC.

---

## 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.
- 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.

505130

Send Report To Chip Goodhue

Company Aspect Consulting Inc

## Address

City, State, ZIP Burbank, WA

Phone # \_\_\_\_\_ Fax #

## **SAMPLE CHAIN OF CUSTODY**

ME 5/8/15 AII / VSJ

Page # \_\_\_\_\_ of \_\_\_\_\_

SAMPLERS (signature)		Page # _____ of _____
PROJECT NAME/NO. <i>SNO PAC</i>	PO#	TURNAROUND TIME
		<input checked="" type="checkbox"/> Standard (2 Weeks) <input type="checkbox"/> RUSH Rush charges authorized by _____
REMARKS <i>Retain sample and return to Aspect.</i>		SAMPLE DISPOSAL
		<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions

Samples received at 4 °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: <i>Robert Fawcett</i>	Robert Fawcett	Aspect	5/8/15	0730
		Received by: <i>Megan Fawcett</i>	Nhan Phan	feBT	5/9/15	1610
		Relinquished by:				
		Received by:				

# 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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

July 29, 2015

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms. Longley:

Included are the additional results from the testing of material submitted on July 2, 2015 from the SnoPac 150054, F&BI 507052 project. There are 5 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com), Parker Wittman  
ASP0729R.DOC

# FRIEDMAN & BRUYA, INC.

---

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on July 2, 2015 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 507052 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
507052 -01	SSA-1
507052 -02	ING-1
507052 -03	PILE-1
507052 -04	SSA-2
507052 -05	ASP-2
507052 -06	SSA-3
507052 -07	SSA-4
507052 -08	ASP-1
507052 -09	SSA-5
507052 -10	SSA-6
507052 -11	SSA-7
507052 -12	SSA-8
507052 -13	SSA-9
507052 -14	SSA-10
507052 -15	ASP-3
507052 -16	ASP-4
507052 -17	ASP-5
507052 -18	ASP-6

The SSA samples were sent to Fremont for total organic carbon analysis. The reports will be forwarded to your office upon receipt.

All quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis for SPLP Metals By EPA Method 200.8 and 1312

Client ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	SnoPac 150054, F&BI 507052
Date Extracted:	07/20/15	Lab ID:	507052-06
Date Analyzed:	07/21/15	Data File:	507052-06.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	80	60	125
Indium	92	60	125
Holmium	91	60	125

Analyte:	Concentration mg/L (ppm)
----------	-----------------------------

Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<1
Lead	<1
Zinc	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis for SPLP Metals By EPA Method 200.8 and 1312

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	SnoPac 150054, F&BI 507052
Date Extracted:	07/20/15	Lab ID:	I5-405 mb
Date Analyzed:	07/21/15	Data File:	I5-405 mb.046
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	85	60	125
Indium	92	60	125
Holmium	94	60	125

Analyte:	Concentration mg/L (ppm)
----------	-----------------------------

Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<1
Lead	<1
Zinc	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/29/15

Date Received: 07/02/15

Project: SnoPac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SPLP METALS USING  
EPA METHOD 200.8**

Laboratory Code: 507052-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	103	102	50-150	1
Cadmium	mg/L (ppm)	0.5	<1	100	99	50-150	1
Chromium	mg/L (ppm)	2.0	<1	114 ca	116 ca	50-150	2
Copper	mg/L (ppm)	2.0	<1	108	106	50-150	2
Lead	mg/L (ppm)	1.0	<1	101	100	50-150	1
Zinc	mg/L (ppm)	5.0	<1	101	103	50-150	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	100	70-130
Cadmium	mg/L (ppm)	0.5	99	70-130
Chromium	mg/L (ppm)	2.0	114	70-130
Copper	mg/L (ppm)	2.0	106	70-130
Lead	mg/L (ppm)	1.0	103	70-130
Zinc	mg/L (ppm)	5.0	116	70-130

# FRIEDMAN & BRUYA, INC.

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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.
- 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.



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
[info@fremontanalytical.com](mailto:info@fremontanalytical.com)

**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 507052**  
**Lab ID: 1507142**

July 27, 2015

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 5 sample(s) on 7/14/2015 for the analyses presented in the following report.

***Total Organic Carbon by EPA Method 9060***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway".

Mike Ridgeway  
President



Date: 07/27/2015

**CLIENT:** Friedman & Bruya  
**Project:** 507052  
**Lab Order:** 1507142

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1507142-001	SSA-2	07/02/2015 10:45 AM	07/14/2015 4:09 PM
1507142-002	SSA-4	07/02/2015 11:05 AM	07/14/2015 4:09 PM
1507142-003	SSA-5	07/02/2015 11:20 AM	07/14/2015 4:09 PM
1507142-004	SSA-8	07/02/2015 12:00 PM	07/14/2015 4:09 PM
1507142-005	SSA-10	07/02/2015 12:20 PM	07/14/2015 4:09 PM

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Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



## Case Narrative

WO#: 1507142

Date: 7/27/2015

---

**CLIENT:** Friedman & Bruya  
**Project:** 507052

---

### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below LOQ
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

WO#: 1507142

Date Reported: 7/27/2015

**CLIENT:** Friedman & Bruya

**Project:** 507052

**Lab ID:** 1507142-001

**Collection Date:** 7/2/2015 10:45:00 AM

**Client Sample ID:** SSA-2

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA Method 9060</b>						
Total Organic Carbon	2.82	0.0500		%-dry	1	7/23/2015 2:50:01 PM

**Lab ID:** 1507142-002

**Collection Date:** 7/2/2015 11:05:00 AM

**Client Sample ID:** SSA-4

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA Method 9060</b>						
Total Organic Carbon	0.759	0.0500		%-dry	1	7/23/2015 3:04:27 PM

**Lab ID:** 1507142-003

**Collection Date:** 7/2/2015 11:20:00 AM

**Client Sample ID:** SSA-5

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA Method 9060</b>						
Total Organic Carbon	0.509	0.0500		%-dry	1	7/23/2015 3:17:24 PM



## Analytical Report

WO#: 1507142

Date Reported: 7/27/2015

**CLIENT:** Friedman & Bruya

**Project:** 507052

**Lab ID:** 1507142-004

**Collection Date:** 7/2/2015 12:00:00 PM

**Client Sample ID:** SSA-8

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.261	0.0500	%-dry	1	7/23/2015 3:28:31 PM
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**Lab ID:** 1507142-005

**Collection Date:** 7/2/2015 12:20:00 PM

**Client Sample ID:** SSA-10

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.328	0.0500	%-dry	1	7/23/2015 4:41:40 PM
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Date: 7/27/2015

Work Order: 1507142  
CLIENT: Friedman & Bruya  
Project: 507052

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA Method 9060**

Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.0500									
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.613	0.0500	0.6510	0	94.2	41.1	157				
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.667	0.0500							0.7486	11.5	30
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.56	0.0500	1.000	0.7486	81.5	50.2	118				
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.53	0.0500	1.000	0.7486	78.4	50.2	118	1.564	2.00	20	



Date: 7/27/2015

Work Order: 1507142

CLIENT: Friedman & Bruya

Project: 507052

## QC SUMMARY REPORT

### Total Organic Carbon by EPA Method 9060

Sample ID: 1507154-005ADUP	SampType: DUP	Units: %-dry			Prep Date: 7/23/2015			RunNo: 23825			
Client ID: BATCH	Batch ID: 11419				Analysis Date: 7/23/2015			SeqNo: 451568			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.692	0.0500						0.5749	18.5	30	

Sample ID: 1507154-005AMS	SampType: MS	Units: %-dry			Prep Date: 7/23/2015			RunNo: 23825			
Client ID: BATCH	Batch ID: 11419				Analysis Date: 7/23/2015			SeqNo: 451569			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.33	0.0500	1.000	0.5749	75.9	50.2	118				



## Sample Log-In Check List

Client Name: FB

Work Order Number: 1507142

Logged by: Clare Griggs

Date Received: 7/14/2015 4:09:00 PM

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? FedEx

### Log In

3. Coolers are present? Yes  No  NA
- No cooler present.**
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA
- Please refer to item information.**
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

Samples received with ice.

### Item Information

Item #	Temp °C
Sample	14.1

## **SUBCONTRACT SAMPLE CHAIN OF CUSTODY**

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

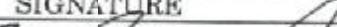
**Address** 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 285-5044

SUBCONTRACTER <i>Fremont</i>		Page # _____ of _____
PROJECT NAME/NO. <i>507052</i>	PO # <i>D-558</i>	TURNAROUND TIME
		<input checked="" type="checkbox"/> Standard (2 Weeks)
		<input type="checkbox"/> RUSH
		Rush charges authorized by: _____
<hr/>		
REMARKS		
Please Email Results		
<hr/>		
SAMPLE DISPOSAL		
<input type="checkbox"/> Dispose after 30 days		
<input type="checkbox"/> Return samples		
<input type="checkbox"/> Will call with instructions		

*Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282  
Fax (206) 282-5244*

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Michael Erdahl	Friedman & Bruya	7/14/15	11:50
Received by: 	Stephen Lee	FAI	7/14/15	11:09
Retlinquished by:				
Received by:				



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
[info@fremontanalytical.com](mailto:info@fremontanalytical.com)

**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 507052**  
**Lab ID: 1507154**

July 27, 2015

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 5 sample(s) on 7/15/2015 for the analyses presented in the following report.

***Total Organic Carbon by EPA Method 9060***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway".

Mike Ridgeway  
President



Date: 07/27/2015

**CLIENT:** Friedman & Bruya  
**Project:** 507052  
**Lab Order:** 1507154

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1507154-001	SSA-1	07/02/2015 10:35 AM	07/15/2015 12:05 PM
1507154-002	SSA-3	07/02/2015 11:00 AM	07/15/2015 12:05 PM
1507154-003	SSA-6	07/02/2015 11:30 AM	07/15/2015 12:05 PM
1507154-004	SSA-7	07/02/2015 11:45 AM	07/15/2015 12:05 PM
1507154-005	SSA-9	07/02/2015 12:10 PM	07/15/2015 12:05 PM

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Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



## Case Narrative

WO#: 1507154

Date: 7/27/2015

---

**CLIENT:** Friedman & Bruya  
**Project:** 507052

---

### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below LOQ
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

WO#: 1507154

Date Reported: 7/27/2015

**CLIENT:** Friedman & Bruya

**Project:** 507052

**Lab ID:** 1507154-001

**Collection Date:** 7/2/2015 10:35:00 AM

**Client Sample ID:** SSA-1

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.534	0.0500	%-dry	1	7/23/2015 4:55:02 PM
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**Lab ID:** 1507154-002

**Collection Date:** 7/2/2015 11:00:00 AM

**Client Sample ID:** SSA-3

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
-----------------	---------------	-----------	-------------	--------------	-----------	----------------------

**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.450	0.0500	%-dry	1	7/23/2015 5:21:30 PM
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**Lab ID:** 1507154-003

**Collection Date:** 7/2/2015 11:30:00 AM

**Client Sample ID:** SSA-6

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.578	0.0500	%-dry	1	7/23/2015 5:32:25 PM
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## Analytical Report

WO#: 1507154

Date Reported: 7/27/2015

**CLIENT:** Friedman & Bruya

**Project:** 507052

**Lab ID:** 1507154-004

**Collection Date:** 7/2/2015 11:45:00 AM

**Client Sample ID:** SSA-7

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.233	0.0500	%-dry	1	7/23/2015 5:47:17 PM
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**Lab ID:** 1507154-005

**Collection Date:** 7/2/2015 12:10:00 PM

**Client Sample ID:** SSA-9

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA Method 9060**

Batch ID: 11419 Analyst: KT

Total Organic Carbon	0.575	0.0500	%-dry	1	7/23/2015 5:59:39 PM
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Date: 7/27/2015

Work Order: 1507154  
CLIENT: Friedman & Bruya  
Project: 507052

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA Method 9060**

Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.0500									
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.613	0.0500	0.6510	0	94.2	41.1	157				
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.667	0.0500							0.7486	11.5	30
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.56	0.0500	1.000	0.7486	81.5	50.2	118				
Sample ID:	SampType:	Units: %-dry			Prep Date:			RunNo:			
Client ID:	Batch ID:				Analysis Date:			SeqNo:			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.53	0.0500	1.000	0.7486	78.4	50.2	118	1.564	2.00	20	



Date: 7/27/2015

Work Order: 1507154

CLIENT: Friedman & Bruya

Project: 507052

## QC SUMMARY REPORT

### Total Organic Carbon by EPA Method 9060

Sample ID: 1507154-005ADUP	SampType: DUP	Units: %-dry			Prep Date: 7/23/2015			RunNo: 23825			
Client ID: SSA-9	Batch ID: 11419				Analysis Date: 7/23/2015			SeqNo: 451568			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.692	0.0500				0.5749			18.5	30	

Sample ID: 1507154-005AMS	SampType: MS	Units: %-dry			Prep Date: 7/23/2015			RunNo: 23825			
Client ID: SSA-9	Batch ID: 11419				Analysis Date: 7/23/2015			SeqNo: 451569			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.33	0.0500	1.000	0.5749	75.9	50.2	118				



## Sample Log-In Check List

Client Name: FB

Work Order Number: 1507154

Logged by: Clare Griggs

Date Received: 7/15/2015 12:05:00 PM

### Chain of Custody

1. Is Chain of Custody complete?  Yes  No  Not Present
2. How was the sample delivered? FedEx

### Log In

3. Coolers are present?  Yes  No  NA
  4. Shipping container/cooler in good condition?  Yes  No
  5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact)  Yes  No  Not Required
  6. Was an attempt made to cool the samples?  Yes  No  NA
  7. Were all items received at a temperature of >0°C to 10.0°C\*  Yes  No  NA
- Please refer to item information.
8. Sample(s) in proper container(s)?  Yes  No
  9. Sufficient sample volume for indicated test(s)?  Yes  No
  10. Are samples properly preserved?  Yes  No
  11. Was preservative added to bottles?  Yes  No  NA
  12. Is there headspace in the VOA vials?  Yes  No  NA
  13. Did all samples containers arrive in good condition(unbroken)?  Yes  No
  14. Does paperwork match bottle labels?  Yes  No
  15. Are matrices correctly identified on Chain of Custody?  Yes  No
  16. Is it clear what analyses were requested?  Yes  No
  17. Were all holding times able to be met?  Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order?  Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

Samples received with ice.

### Item Information

Item #	Temp °C
Sample	14.6

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1507154

Send Report To Michael Erdahl

Company. Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER	
<i>Fremont</i>	
PROJECT NAME/NO.	PO #
507052	D-558
REMARKS	
Please Email Results	

Page # \_\_\_\_\_ of \_\_\_\_\_

## **TURNAROUND TIME**

- Standard (2 Weeks)  
 RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

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

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Michael Erdahl	Friedman & Bruya	7/15/15	9:30
Received by:				
Relinquished by: 				
Received by: 	Clark Gilbert	FT	7/15/15	12:05

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

C13  
D04/824/K24

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave., Suite 201  
 City, State, ZIP Seattle, WA 98101  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	PROJECT NAME/NO. <u>Snopac</u>	PO# <u>150054</u>
REMARKS <u>(HS, Hg, Zn)</u>		

Page # 1 of 2

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard (2 Weeks)	<input type="checkbox"/> RUSH _____
Rush charges authorized by _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Dispose after 30 days	<input type="checkbox"/> Return samples
<input checked="" type="checkbox"/> Will call with instructions	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-TOC Gasoline	BTEX by 8021B	VOCs by 8270	SVOCs by 8270	PCP Aro-Hex HCH/HCB	DATs	PCBs	METALS As, Cd, Cr, Cu, Hg, Pb, Zn	TOX As, PLP + Total Arsenic + Copper RCRA8 METALS Hg, Cd, Ni, Zn	
SSA - 1	01A-B	7/2/15	1035	soil	2	X			X	X	X	X	X	X	X	*-perKL
ING - 1	02A-E		1030		5			X				X				7/9/15 mg
PILE - 1	03A-B		1040		2	*		X				X				*-perKL
SSA - 2	04A-B		1045		2	*		X			X	X	X			7/13/15 mg
ASP - 2	05A-D		1135	water	4			X			X	X	X			*-perKL
SSA - 3	06A-C		1100	soil	3	X			X	X	X	X	X	X		7/14/15 mg
SSA - 4	07A-B		1105		1	*		X			X	X	X			
ASP - 1	08A-D		1115	water	4			X			X	X	X			
SSA - 5	09A-B		1120	soil	2	*		X			X	X	X			Samples received at 6 pm
SSA - 6	10A-B		1130	T	2	X		X			X	X	X			

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: <u>Kirsi Longley</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Dave</u>	Dave	Aspect	11	13:58
Relinquished by: <u></u>				
Received by: <u></u>				

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

204/CT3/1A4

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature)	<u>J. Hylton</u>	
PROJECT NAME/NO.	PO#	
<u>Snopac</u>	<u>150054</u>	
REMARKS		<u>PS, Hg, Zn</u>

Page # 2 of 2

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED								Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270*	HFS	PAHs	PCBs	metPAHs	Cx, Cy, Cr, Cu
SSA - 7	1AB7	7/2/15	1145	Soil	2	X				X	X	X	X	X	TBT
SSA - 8	12K4		1200		3	X				X	X	X	X	X	
SSA - 9	13A9		1210		2	X				X	X	X	X		
SSA - 10	14 T		1220		2	X				X	X	X	X		
ASP - 3	15A7		1200	water	1					X	X	X	X		
ASP - 4	16 T		1210		4					X	X	X	X		
ASP - 5	17		1240		4					X	X	X	X		
ASP - 6	18		1250		4					X	X	X	X		

Samples received at 6:00

Friedman & Bruya, Inc.  
 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>Kirsi Longley</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Demo</u>	DO 10	FBI	"	13:50
Relinquished by: <u>Demo</u>				
Received by:				

\*SVOC list = Bis(2-ethylhexyl)phthalate ; 1,2,4-trichlorobenzene ; benzoic acid ; dibenzofuran

# 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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

July 14, 2015

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms. Longley:

Included are the results from the testing of material submitted on July 2, 2015 from the Snopac 150054, F&BI 507052 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com), Parker Wittman  
ASP0714R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on July 2, 2015 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 507052 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
507052 -01	SSA-1
507052 -02	ING-1
507052 -03	PILE-1
507052 -04	SSA-2
507052 -05	ASP-2
507052 -06	SSA-3
507052 -07	SSA-4
507052 -08	ASP-1
507052 -09	SSA-5
507052 -10	SSA-6
507052 -11	SSA-7
507052 -12	SSA-8
507052 -13	SSA-9
507052 -14	SSA-10
507052 -15	ASP-3
507052 -16	ASP-4
507052 -17	ASP-5
507052 -18	ASP-6

Sample ING-1 has been issued in this report per your request. The rest of the results were issued in a separate report.

A 200.8 internal standard failed the acceptance criteria for sample ING-1 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

Selenium exceeded the acceptance criteria in the 200.8 matrix spike samples. The laboratory control samples met the acceptance criteria, therefore the data were likely due to sample matrix effect.

All other quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ING-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-02
Date Analyzed:	07/13/15	Data File:	507052-02.051
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	133 vo	60	125
Indium	90	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.81
Barium	15.8
Cadmium	<1
Chromium	86.9 J
Copper	32.1 J
Lead	3.52
Nickel	35.7 J
Selenium	<1
Silver	<1
Zinc	92.8 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ING-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-02 x10
Date Analyzed:	07/13/15	Data File:	507052-02 x10.066
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125
Indium	90	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<10
Barium	26.7
Cadmium	<10
Chromium	150
Copper	<50
Lead	<10
Nickel	57.2
Selenium	<10
Silver	<10
Zinc	145

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	I5-386 mb
Date Analyzed:	07/13/15	Data File:	I5-386 mb.045
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	92	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

Date Extracted: 07/08/15

Date Analyzed: 07/10/15

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL MERCURY  
USING EPA METHOD 1631E**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u>	<u>Total Mercury</u>
------------------	----------------------

Laboratory ID

ING-1 507052-02	<0.025
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Method Blank	<0.025
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: ING-1  
 Date Received: 07/02/15  
 Date Extracted: 07/06/15  
 Date Analyzed: 07/07/15  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 507052  
 Lab ID: 507052-02  
 Data File: 070736.D  
 Instrument: GCMS9  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	95	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	05-1377 mb
Date Analyzed:	07/07/15	Data File:	070728.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	94	64	137
4-Bromofluorobenzene	97	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ING-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-02 1/5
Date Analyzed:	07/06/15	Data File:	08.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1384 mb 1/5
Date Analyzed:	07/06/15	Data File:	06.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	104	29	154

Compounds:	Concentration mg/kg (ppm)
------------	------------------------------

Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 507052-06 1/50 (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	4,640	0 b	911 b	67-121	200 b
Barium	mg/kg (ppm)	50	227	58 b	102 b	74-135	56 b
Cadmium	mg/kg (ppm)	10	<50	95	110	88-121	15
Chromium	mg/kg (ppm)	50	120	88 b	108 b	57-128	20 b
Copper	mg/kg (ppm)	50	3,260	0 b	0 b	53-127	0 b
Lead	mg/kg (ppm)	50	2,900	307 b	527 b	59-148	53 b
Nickel	mg/kg (ppm)	25	58.0	224 b	115 b	57-118	65 b
Selenium	mg/kg (ppm)	5	<50	168 vo	153 vo	55-130	9
Silver	mg/kg (ppm)	10	<50	88	90	73-122	2
Zinc	mg/kg (ppm)	50	12,300	0 b	88 b	42-122	200 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	99	83-113
Barium	mg/kg (ppm)	50	102	85-116
Cadmium	mg/kg (ppm)	10	105	85-114
Chromium	mg/kg (ppm)	50	95	78-121
Copper	mg/kg (ppm)	50	98	77-126
Lead	mg/kg (ppm)	50	97	80-120
Nickel	mg/kg (ppm)	25	97	84-118
Selenium	mg/kg (ppm)	5	97	87-117
Silver	mg/kg (ppm)	10	105	78-117
Zinc	mg/kg (ppm)	50	89	71-116

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
TOTAL MERCURY  
USING EPA METHOD 1631E**

Laboratory Code: 507052-06 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	0.27	33 b	28 b	62-136	16 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	104	68-125

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

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

Laboratory Code: 507062-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	23	23	10-56	0
Chloromethane	mg/kg (ppm)	2.5	<0.5	55	54	10-90	2
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	55	55	10-91	0
Bromomethane	mg/kg (ppm)	2.5	<0.5	69	68	10-110	1
Chloroethane	mg/kg (ppm)	2.5	<0.5	70	69	10-101	1
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	67	67	10-95	0
Acetone	mg/kg (ppm)	12.5	<0.5	102	94	11-141	8
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	78	74	11-103	5
Hexane	mg/kg (ppm)	2.5	<0.25	54	52	10-95	4
Methylene chloride	mg/kg (ppm)	2.5	<0.5	100	98	14-128	2
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	102	100	17-134	2
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	93	88	13-112	6
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	93	90	23-115	3
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	85	82	18-117	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	96	94	25-120	2
Chloroform	mg/kg (ppm)	2.5	<0.05	94	90	29-117	4
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	95	91	20-133	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	89	86	22-124	3
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	96	93	27-112	3
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	88	87	26-107	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	95	92	22-115	3
Benzene	mg/kg (ppm)	2.5	<0.03	90	86	26-114	5
Trichloroethene	mg/kg (ppm)	2.5	<0.02	95	89	30-112	7
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	91	89	31-119	2
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	92	90	31-131	2
Dibromomethane	mg/kg (ppm)	2.5	<0.05	94	91	27-124	3
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	110	106	16-147	4
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	88	87	28-137	1
Toluene	mg/kg (ppm)	2.5	<0.05	95	93	34-112	2
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	92	90	30-136	2
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	97	93	32-126	4
2-Hexanone	mg/kg (ppm)	12.5	<0.5	99	95	17-147	4
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	93	91	29-125	2
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	89	88	25-114	1
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	99	95	32-143	4
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	94	91	32-126	3
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	92	90	37-113	2
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	97	94	34-115	3
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	100	96	35-126	4
m,p-Xylene	mg/kg (ppm)	5	<0.1	100	96	25-125	4
o-Xylene	mg/kg (ppm)	2.5	<0.05	104	100	27-126	4
Styrene	mg/kg (ppm)	2.5	<0.05	106	102	39-121	4
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	109	105	34-123	4
Bromoform	mg/kg (ppm)	2.5	<0.05	95	92	18-155	3
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	92	89	31-120	3
Bromobenzene	mg/kg (ppm)	2.5	<0.05	90	88	40-115	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	99	98	24-130	1
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	85	85	27-148	0
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	90	88	33-123	2
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	94	93	39-110	1
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	95	93	39-111	2
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	106	104	36-116	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	104	100	35-116	4
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	102	99	33-118	3
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	100	98	32-119	2
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	92	91	38-111	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	93	90	39-109	3
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	93	92	40-111	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	101	103	37-122	2
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	94	93	31-121	1
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	92	90	24-128	2
Naphthalene	mg/kg (ppm)	2.5	<0.05	110	106	24-139	4
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	97	97	35-117	0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	48	10-76
Chloromethane	mg/kg (ppm)	2.5	73	34-98
Vinyl chloride	mg/kg (ppm)	2.5	75	42-107
Bromomethane	mg/kg (ppm)	2.5	85	46-113
Chloroethane	mg/kg (ppm)	2.5	86	47-115
Trichlorofluoromethane	mg/kg (ppm)	2.5	88	53-112
Acetone	mg/kg (ppm)	12.5	113	39-147
1,1-Dichloroethene	mg/kg (ppm)	2.5	90	65-110
Hexane	mg/kg (ppm)	2.5	74	55-107
Methylene chloride	mg/kg (ppm)	2.5	104	50-127
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	102	72-122
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	99	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	98	74-109
2,2-Dichloropropane	mg/kg (ppm)	2.5	104	64-151
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	100	73-110
Chloroform	mg/kg (ppm)	2.5	96	76-110
2-Butanone (MEK)	mg/kg (ppm)	12.5	101	60-121
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	93	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	99	72-116
1,1-Dichloropropene	mg/kg (ppm)	2.5	96	72-112
Carbon tetrachloride	mg/kg (ppm)	2.5	102	67-123
Benzene	mg/kg (ppm)	2.5	93	72-106
Trichloroethene	mg/kg (ppm)	2.5	95	72-107
1,2-Dichloropropane	mg/kg (ppm)	2.5	95	74-115
Bromodichloromethane	mg/kg (ppm)	2.5	96	75-126
Dibromomethane	mg/kg (ppm)	2.5	98	76-116
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	114	80-128
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	97	71-138
Toluene	mg/kg (ppm)	2.5	97	74-111
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	99	77-135
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	96	77-116
2-Hexanone	mg/kg (ppm)	12.5	103	70-129
1,3-Dichloropropane	mg/kg (ppm)	2.5	97	75-115
Tetrachloroethene	mg/kg (ppm)	2.5	92	73-111
Dibromochloromethane	mg/kg (ppm)	2.5	101	64-152
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	98	77-117
Chlorobenzene	mg/kg (ppm)	2.5	95	76-109
Ethylbenzene	mg/kg (ppm)	2.5	98	75-112
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	102	76-125
m,p-Xylene	mg/kg (ppm)	5	101	77-115
o-Xylene	mg/kg (ppm)	2.5	105	76-115
Styrene	mg/kg (ppm)	2.5	109	76-119
Isopropylbenzene	mg/kg (ppm)	2.5	109	76-120
Bromoform	mg/kg (ppm)	2.5	94	50-174
n-Propylbenzene	mg/kg (ppm)	2.5	93	77-115
Bromobenzene	mg/kg (ppm)	2.5	92	76-112
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	100	77-121
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	95	74-121
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	93	74-116
2-Chlorotoluene	mg/kg (ppm)	2.5	96	75-113
4-Chlorotoluene	mg/kg (ppm)	2.5	98	77-115
tert-Butylbenzene	mg/kg (ppm)	2.5	108	77-123
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	104	77-119
sec-Butylbenzene	mg/kg (ppm)	2.5	103	78-120
p-Isopropyltoluene	mg/kg (ppm)	2.5	102	77-120
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	95	76-112
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	94	74-109
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	94	75-114
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	105	68-122
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	96	75-122
Hexachlorobutadiene	mg/kg (ppm)	2.5	94	74-130
Naphthalene	mg/kg (ppm)	2.5	110	73-122
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	100	75-117

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCOLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 507052-11 1/5 (Matrix Spike) 1/5

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.02	103	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.02	124	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	93	90	55-130	3
Aroclor 1260	mg/kg (ppm)	0.8	96	91	58-133	5

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

204/B24/K14  
C13

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave., Suite 201  
 City, State, ZIP Seattle, WA 98101  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO. <u>Snopac</u>	PO# <u>150054</u>
REMARKS <u>Pb, Hg, Zn</u>	

Page # 1 of 2

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED									Notes
						TPH-Diesel	T <sub>OC</sub> TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs	PCBs	metals	As, Cd, Cr, Cu, Pb, Hg, Zn
SSA - 1	01A-B	7/2/15	1035	soil	2			X		X	X	X	X	X	*-perKL
ING - 1	02A-E		1030		5			X		X		X			7/8/15 64
PILE - 1	03A-B		1040		2	*		X							*-perKL
SSA - 2	04A-B		1045		2	*		X		X	X	X	X		7/13/15 me
ASP - 2	05A-D		1135	water	4			X		X	X	X	X		
SSA - 3	06A-C		1100	soil	3			X		X	X	X	X		
SSA - 4	07A-B		1105		1	2	*		X	X	X	X	X		
ASP - 1	08A-D		1115	water	4			X		X	X	X	X		
SSA - 5	09A-B		1120	soil	2	*		X		X	X	X	X		Samples received at 6
SSA - 6	10A-B		1130	T	2			X		X	X	X	X		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: <u>Dave</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Dave</u>	David	Fe Bx	11	13:50
Relinquished by:				
Received by:				

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

DOY 1824/AZ4

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO.	PO#
<u>Snapac</u>	<u>150054</u>
REMARKS <i>Pb, Hg, Zn</i>	

Page # 2 of 2

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED							Notes	
						TPH-Diesel <del>TPH Gasoline</del>	BTEX by 8021B	VOCs by 8260	SVOCs by 8270X	HFS	PAHs	PCB	metals As, Cd, Cu, Pb, Zn	
SSA-7	11AB72/15	1145		Soil	1	X	X	X	X	X	X	X	X	
SSA-8	12AC	1200			3	*	X	X	X	X	X	X	X	X
SSA-9	13AB	1210			2	*	X	X	X	X	X	X	X	
SSA-10	14 T	1220			2	*	X	X	X	X	X	X	X	
ASP-3	15AD	1200		Water	1	X	X	X	X	X	X	X	X	
ASP-4	16 T	1210			4	X	X	X	X	X	X	X	X	
ASP-5	17	1240			4	X	X	X	X	X	X	X	X	
ASP-6	18	1250			4	X	X	X	X	X	X	X	X	

Samples received at 6 PM

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

SIGNATURE <i>Kirsi Longley</i>	PRINT NAME <i>Kirsi Longley</i>	COMPANY <i>Aspect</i>	DATE <i>7/2/15</i>	TIME <i>1350</i>
Relinquished by: <i>D. C. S.</i>	Received by: <i>D. C. S.</i>	Relinquished by: <i>D. C. S.</i>	Received by: <i>D. C. S.</i>	

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

204/824/124

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave., Suite 201  
 City, State, ZIP Seattle, WA 98101  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO. <u>Snopac</u>	PO# <u>150054</u>
REMARKS <u>rs, hg, Z.</u>	

Page # 1 of 2

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard (2 Weeks)	<input type="checkbox"/> RUSH
Rush charges authorized by _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Dispose after 30 days	<input type="checkbox"/> Return samples
<input checked="" type="checkbox"/> Will call with instructions	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED										Notes		
						TPH-Diesel	TPH-T <sub>OC</sub>	TPH-C <sub>6</sub> H <sub>6</sub>	BTEX by 8021B	VOCs by 8270	HFS	PAHs	PCBs	metals	(As, Cd, Cr, Cu, Ni, Zn)	TOT	SPLP + Tote	Arsenic + Cadmium
SSA - 1	01A-B	7/2/15	1035	soil	2				X	X	X	X	X	X	X	X	*	-per KL
ING - 1	02A-E		1030		5				X			X					X	7/8/15 44
PILE - 1	03A-B		1040		2	*			X								X	*-per KL
SSA - 2	04A-B		1045		2	*			X			X	X	X	X			7/13/15 me
ASP - 2	05A-D		1135	water	4				X			X	X	X	X			
SSA - 3	06A-C		1100	soil	3				X			X	X	X	X			
SSA - 4	07A-B		1105		1	2	*		X			X	X	X	X			
ASP - 1	08A-D		1115	water	4				X			X	X	X	X			
SSA - 5	09A-B		1120	soil	2	*			X			X	X	X	X			
SSA - 6	10A-B		1130	T	2				X			X	X	X	X			

Samples received at 6 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: <u>Dave</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Dave</u>	David	Fe B+	11	13:54
Relinquished by: <u></u>				
Received by: <u></u>				

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

DOY 1324/A14

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO.	PO#
<u>Snopac</u>	<u>150054</u>
REMARKS <i>Pb, Hg, Zn</i>	

Page # 2 of 2

## TURNAROUND TIME

 Standard (2 Weeks) RUSH

Rush charges authorized by \_\_\_\_\_

## SAMPLE DISPOSAL

 Dispose after 30 days Return samples Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED							Notes	
						TPH-Diesel <i>Tec</i> <i>TPH Gasoline</i>	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs	PCB	metals <i>Cu, Zn, Cd, Cr, Ni</i>	
SSA-7	11AB72/15	1145		Soil	2				X	X	X	X		
SSA-8	12AC	1200			3	*			X	X	X	X		X
SSA-9	13AB	1210			2				X	X	X	X		
SSA-10	14T	1220			2	*			X	X	X	X		
ASP-3	15AD	1200		Water	4				X	X	X	X		
ASP-4	16T	1210			4				X	X	X	X		
ASP-5	17	1240			4				X	X	X	X		
ASP-6	18	1250			4				X	X	X	X		

Samples received at 6 °C

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

SIGNATURE <i>Kirsi Longley</i>	PRINT NAME <i>Kirsi Longley</i>	COMPANY <i>Aspect</i>	DATE <i>7/2/15</i>	TIME <i>1350</i>
Relinquished by: <i>Demo</i>	Received by: <i>Demo</i>	Relinquished by: <i>Demo</i>	Received by: <i>Demo</i>	

\*SVOC list = Bis(2-ethylhexyl)phthalate ; 1,2,4-trichlorobenzene ; benzoic acid ; dibenzofr

# 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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

July 14, 2015

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms. Longley:

Included are the results from the testing of material submitted on July 2, 2015 from the Snopac 150054, F&BI 507052 project. There are 108 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com), Parker Wittman  
ASP0714R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on July 2, 2015 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 507052 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
507052 -01	SSA-1
507052 -02	ING-1
507052 -03	PILE-1
507052 -04	SSA-2
507052 -05	ASP-2
507052 -06	SSA-3
507052 -07	SSA-4
507052 -08	ASP-1
507052 -09	SSA-5
507052 -10	SSA-6
507052 -11	SSA-7
507052 -12	SSA-8
507052 -13	SSA-9
507052 -14	SSA-10
507052 -15	ASP-3
507052 -16	ASP-4
507052 -17	ASP-5
507052 -18	ASP-6

Per your request, sample ING-1 was issued in a separate report.

Samples SSA-3 and SSA-8 were sent to Analytical Resources, Inc. for tributyltin analysis. In addition, the samples SSA-2, SSA-4, SSA-5, SSA-8, and SSA-10 were sent to Fremont for total organic carbon analysis. The reports will be forwarded to your office upon receipt.

A 200.8 internal standard failed the acceptance criteria for sample SSA-3, SSA-5, SSA-8, ASP-2, ASP-1, ASP-4, ASP-5, and ASP-6 due to matrix interferences. The data were flagged accordingly. The samples were diluted and reanalyzed.

An 8270D SIM internal standard failed the acceptance criteria for sample SSA-2, SSA-3, SSA-5, and SSA-8 due to matrix interferences. The data were flagged accordingly. The samples were diluted and reanalyzed.

An 8270D internal standard failed the acceptance criteria for sample SSA-2 and SSA-6 due to matrix interferences. The data were flagged accordingly. The samples were diluted and reanalyzed.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE (continued)

The 8270D soil matrix spike and matrix spike duplicate failed the relative percent difference for several compounds. The laboratory control sample passed the acceptance criteria, therefore the results were likely due to matrix effect.

Several compounds in the 8270D water laboratory control sample exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

Bis(2-ethylhexyl)phthalate was detected in several 8270D samples. The compound is a common field and laboratory contaminant and the data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

Date Extracted: 07/10/15

Date Analyzed: 07/10/15

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 48-168)
PILE-1 507052-03 1/10	290,000 x	67,000 x	ip
Method Blank 05-1414 MB2	<50	<250	114

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-01
Date Analyzed:	07/13/15	Data File:	507052-01.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	88	60	125
Indium	81	60	125
Holmium	87	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.1
Cadmium	<1
Chromium	7.04
Copper	49.1
Lead	66.6
Zinc	76.4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-03
Date Analyzed:	07/13/15	Data File:	507052-03.052
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	87	60	125
Indium	84	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.63
Copper	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-04
Date Analyzed:	07/13/15	Data File:	507052-04.053
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	86	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	27.3
Cadmium	<1
Chromium	20.1
Copper	65.9
Lead	54.7
Zinc	150

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-06
Date Analyzed:	07/13/15	Data File:	507052-06.047
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	157 vo	60	125
Indium	329 vo	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	861 J
Cadmium	1.15 J
Chromium	43.6 J
Copper	1,160 J
Lead	1,720
Zinc	3,900 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-06 x50
Date Analyzed:	07/13/15	Data File:	507052-06 x50.081
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	92	60	125
Indium	98	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4,890
Cadmium	<50
Chromium	126
Copper	3,430
Lead	3,050
Zinc	12,900

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-07
Date Analyzed:	07/13/15	Data File:	507052-07.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	92	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	70.1
Cadmium	<1
Chromium	9.56
Copper	55.3
Lead	61.7
Zinc	196

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-09
Date Analyzed:	07/13/15	Data File:	507052-09.056
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	130 vo	60	125
Indium	240 vo	60	125
Holmium	86	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	912 J
Cadmium	1.11 J
Chromium	46.4 J
Copper	921 J
Lead	1,570
Zinc	3,770 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-09 x10
Date Analyzed:	07/13/15	Data File:	507052-09 x10.067
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	114	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	2,760
Cadmium	<10
Chromium	93.0
Copper	1,740
Lead	2,210
Zinc	7,960

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-10
Date Analyzed:	07/13/15	Data File:	507052-10.057
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	77	60	125
Indium	76	60	125
Holmium	75	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	340
Cadmium	1.44
Chromium	20.4
Copper	164
Lead	237
Zinc	1,110

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-11
Date Analyzed:	07/13/15	Data File:	507052-11.058
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	95	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	315
Cadmium	<1
Chromium	24.9
Copper	165
Lead	305
Zinc	738

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-12
Date Analyzed:	07/13/15	Data File:	507052-12.059
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	146 vo	60	125
Indium	235 vo	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	1,260 J
Cadmium	1.65 J
Chromium	53.1 J
Copper	767 J
Lead	1,770
Zinc	4,570 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-12 x10
Date Analyzed:	07/13/15	Data File:	507052-12 x10.068
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125
Indium	121	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4,250
Cadmium	<10
Chromium	155
Copper	1,900
Lead	3,030
Zinc	12,100

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-13
Date Analyzed:	07/13/15	Data File:	507052-13.060
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125
Indium	85	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	49.4
Cadmium	<1
Chromium	6.93
Copper	53.1
Lead	35.5
Zinc	162

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-10	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-14
Date Analyzed:	07/13/15	Data File:	507052-14.061
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	91	60	125
Indium	85	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	15.9
Cadmium	<1
Chromium	6.61
Copper	21.1
Lead	34.7
Zinc	168

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	I5-386 mb
Date Analyzed:	07/13/15	Data File:	I5-386 mb.045
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	92	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-05
Date Analyzed:	07/10/15	Data File:	507052-05.009
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	30 vo	60	125
Indium	31 vo	60	125
Holmium	38 vo	60	125

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	28.3 J
Cadmium	<1 J
Chromium	2.21 J
Copper	263 J
Lead	<1 J
Zinc	14.3 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-05 x10
Date Analyzed:	07/10/15	Data File:	507052-05 x10.012
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	89	60	125
Indium	93	60	125
Holmium	101	60	125

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	40.1
Cadmium	<10
Chromium	<10
Copper	97.5
Lead	<10
Zinc	16.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-08
Date Analyzed:	07/10/15	Data File:	507052-08.032
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	34 vo	60	125
Indium	33 vo	60	125
Holmium	40 vo	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	33.0 J
Cadmium	<1 J
Chromium	2.58 J
Copper	677 J
Lead	<1 J
Zinc	19.3 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-08 x10
Date Analyzed:	07/10/15	Data File:	507052-08 x10.039
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	87	60	125
Indium	85	60	125
Holmium	92	60	125

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	44.7
Cadmium	<10
Chromium	<10
Copper	86.5
Lead	<10
Zinc	21.4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-15
Date Analyzed:	07/10/15	Data File:	507052-15.033
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	79	60	125
Indium	71	60	125
Holmium	81	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	42.4
Cadmium	<1
Chromium	2.81
Copper	35.2
Lead	5.80
Zinc	35.9

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-16
Date Analyzed:	07/10/15	Data File:	507052-16.015
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	38 vo	60	125
Indium	40 vo	60	125
Holmium	45 vo	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	55.1 J
Cadmium	<1 J
Chromium	3.36 J
Copper	530 J
Lead	8.47 J
Zinc	267 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-16 x10
Date Analyzed:	07/10/15	Data File:	507052-16 x10.040
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	89	60	125
Indium	86	60	125
Holmium	94	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	75.5
Cadmium	<10
Chromium	<10
Copper	226
Lead	<10
Zinc	393

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-17
Date Analyzed:	07/10/15	Data File:	507052-17.034
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	65	60	125
Indium	55 vo	60	125
Holmium	63	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	32.6 J
Cadmium	<1 J
Chromium	1.47
Copper	103
Lead	<1
Zinc	8.46

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-17 x10
Date Analyzed:	07/10/15	Data File:	507052-17 x10.041
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	87	60	125
Holmium	96	60	125

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	42.2
Cadmium	<10
Chromium	<10
Copper	48.1
Lead	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-18
Date Analyzed:	07/10/15	Data File:	507052-18.035
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	54 vo	60	125
Indium	56 vo	60	125
Holmium	65	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	49.9 J
Cadmium	<1 J
Chromium	2.59 J
Copper	48.0 J
Lead	<1
Zinc	<5 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-18 x10
Date Analyzed:	07/10/15	Data File:	507052-18 x10.042
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	90	60	125
Holmium	98	60	125

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	63.5
Cadmium	<10
Chromium	<10
Copper	31.0
Lead	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	I5-387 mb
Date Analyzed:	07/10/15	Data File:	I5-387 mb.020
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	110	60	125
Indium	106	60	125
Holmium	106	60	125

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Zinc	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

Date Extracted: 07/08/15

Date Analyzed: 07/10/15

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL MERCURY  
USING EPA METHOD 1631E**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u>	<u>Total Mercury</u>
Laboratory ID	
SSA-1 507052-01	0.052
SSA-2 507052-04	0.082
SSA-3 507052-06 1/5	0.28
SSA-4 507052-07	0.25
SSA-5 507052-09 1/25	0.98
SSA-6 507052-10	<0.050
SSA-7 507052-11 1/5	0.66
SSA-8 507052-12	0.067
SSA-9 507052-13	0.038
SSA-10 507052-14	<0.025
Method Blank	<0.025

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

Date Extracted: 07/09/15

Date Analyzed: 07/10/15

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL MERCURY**

**USING EPA METHOD 1631E**

Results Reported as ug/L (ppb)

<u>Sample ID</u>	<u>Total Mercury</u>
Laboratory ID	
ASP-2 507052-05	<0.1
ASP-1 507052-08	<0.1
ASP-3 507052-15	<0.1
ASP-4 507052-16 1/10	0.28
ASP-5 507052-17	<0.1
ASP-6 507052-18	<0.1
Method Blank	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis for SPLP Metals By EPA Method 200.8 and 1312

Client ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/09/15	Lab ID:	507052-03
Date Analyzed:	07/14/15	Data File:	507052-03.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	97	60	125

Analyte:	Concentration mg/L (ppm)
Arsenic	<1
Copper	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis for SPLP Metals By EPA Method 200.8 and 1312

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/09/15	Lab ID:	I5-390 mb
Date Analyzed:	07/14/15	Data File:	I5-390 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125
Indium	96	60	125

Analyte:	Concentration mg/L (ppm)
Arsenic	<1
Copper	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-01 1/5
Date Analyzed:	07/07/15	Data File:	070705.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	100 d	31	163
Benzo(a)anthracene-d12	107 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.079
Acenaphthylene	0.027
Acenaphthene	0.022
Fluorene	0.046
Phenanthrene	0.32
Anthracene	0.16
Fluoranthene	0.65
Pyrene	0.46
Benz(a)anthracene	0.78
Chrysene	0.82
Benzo(a)pyrene	0.64
Benzo(b)fluoranthene	1.1
Benzo(k)fluoranthene	0.43
Indeno(1,2,3-cd)pyrene	0.30
Dibenz(a,h)anthracene	0.085
Benzo(g,h,i)perylene	0.26
1-Methylnaphthalene	0.075
2-Methylnaphthalene	0.097

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/0.5
Date Analyzed:	07/07/15	Data File:	070718.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	100	31	163
Benzo(a)anthracene-d12	96	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.071
Acenaphthylene	0.042
Acenaphthene	0.045
Fluorene	0.058
Phenanthrene	0.50 ve
Anthracene	0.20 ve
Fluoranthene	0.60 ve
Pyrene	0.74 ve
Benz(a)anthracene	0.93 ve
Chrysene	1.2 ve
Benzo(a)pyrene	0.95 ve J
Benzo(b)fluoranthene	1.7 ve J
Benzo(k)fluoranthene	0.33 ve J
Indeno(1,2,3-cd)pyrene	0.62 ve J
Dibenz(a,h)anthracene	0.17 ve J
Benzo(g,h,i)perylene	0.66 ve J
1-Methylnaphthalene	0.043
2-Methylnaphthalene	0.053

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/50
Date Analyzed:	07/08/15	Data File:	070820.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	404 d	31	163
Benzo(a)anthracene-d12	156 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	0.62
Anthracene	0.20
Fluoranthene	0.83
Pyrene	0.76
Benz(a)anthracene	0.60
Chrysene	1.5
Benzo(a)pyrene	1.2
Benzo(b)fluoranthene	1.6
Benzo(k)fluoranthene	0.59
Indeno(1,2,3-cd)pyrene	1.1
Dibenz(a,h)anthracene	0.26
Benzo(g,h,i)perylene	1.4
1-Methylnaphthalene	<0.1
2-Methylnaphthalene	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/5
Date Analyzed:	07/07/15	Data File:	070708.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90 d	31	163
Benzo(a)anthracene-d12	110 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.032
Acenaphthylene	0.019
Acenaphthene	0.069
Fluorene	0.054
Phenanthrene	0.64
Anthracene	0.14
Fluoranthene	0.99
Pyrene	1.1
Benz(a)anthracene	0.59
Chrysene	0.73
Benzo(a)pyrene	0.79 J
Benzo(b)fluoranthene	1.0 J
Benzo(k)fluoranthene	0.35 J
Indeno(1,2,3-cd)pyrene	0.50 J
Dibenz(a,h)anthracene	0.12 J
Benzo(g,h,i)perylene	0.44 J
1-Methylnaphthalene	0.028
2-Methylnaphthalene	0.023

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/50
Date Analyzed:	07/08/15	Data File:	070819.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	913 d	31	163
Benzo(a)anthracene-d12	140 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	0.70
Anthracene	0.14
Fluoranthene	1.2
Pyrene	1.2
Benz(a)anthracene	0.60
Chrysene	0.79
Benzo(a)pyrene	0.83
Benzo(b)fluoranthene	1.0
Benzo(k)fluoranthene	0.40
Indeno(1,2,3-cd)pyrene	0.58
Dibenz(a,h)anthracene	0.14
Benzo(g,h,i)perylene	0.60
1-Methylnaphthalene	<0.1
2-Methylnaphthalene	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-07 1/5
Date Analyzed:	07/07/15	Data File:	070709.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	31	163
Benzo(a)anthracene-d12	87 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.044
Acenaphthylene	0.018
Acenaphthene	0.038
Fluorene	0.034
Phenanthrene	0.36
Anthracene	0.078
Fluoranthene	0.53
Pyrene	0.49
Benz(a)anthracene	0.27
Chrysene	0.53
Benzo(a)pyrene	0.38
Benzo(b)fluoranthene	0.71
Benzo(k)fluoranthene	0.24
Indeno(1,2,3-cd)pyrene	0.25
Dibenz(a,h)anthracene	0.067
Benzo(g,h,i)perylene	0.25
1-Methylnaphthalene	0.030
2-Methylnaphthalene	0.036

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/50
Date Analyzed:	07/07/15	Data File:	070710.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	106 d	31	163
Benzo(a)anthracene-d12	93 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.19
Acenaphthylene	<0.1
Acenaphthene	0.24
Fluorene	0.25
Phenanthrene	3.0
Anthracene	0.58
Fluoranthene	4.1
Pyrene	4.2
Benz(a)anthracene	2.0
Chrysene	2.4
Benzo(a)pyrene	2.2 J
Benzo(b)fluoranthene	2.9 J
Benzo(k)fluoranthene	1.1 J
Indeno(1,2,3-cd)pyrene	1.1 J
Dibenz(a,h)anthracene	0.31 J
Benzo(g,h,i)perylene	1.0 J
1-Methylnaphthalene	0.11
2-Methylnaphthalene	0.087

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/500
Date Analyzed:	07/10/15	Data File:	071004.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	700 d	31	163
Benzo(a)anthracene-d12	25 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<1
Acenaphthylene	<1
Acenaphthene	<1
Fluorene	<1
Phenanthrene	2.3
Anthracene	<1
Fluoranthene	3.4
Pyrene	3.3
Benz(a)anthracene	1.4
Chrysene	1.8
Benzo(a)pyrene	1.7
Benzo(b)fluoranthene	2.0
Benzo(k)fluoranthene	<1
Indeno(1,2,3-cd)pyrene	1.0
Dibenz(a,h)anthracene	<1
Benzo(g,h,i)perylene	1.1
1-Methylnaphthalene	<1
2-Methylnaphthalene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/50
Date Analyzed:	07/08/15	Data File:	070807.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	62 d	31	163
Benzo(a)anthracene-d12	405 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	0.52
Pyrene	1.8
Benz(a)anthracene	0.46
Chrysene	0.58
Benzo(a)pyrene	0.31
Benzo(b)fluoranthene	0.53
Benzo(k)fluoranthene	<0.2
Indeno(1,2,3-cd)pyrene	<0.2
Dibenz(a,h)anthracene	<0.2
Benzo(g,h,i)perylene	0.21
1-Methylnaphthalene	<0.2
2-Methylnaphthalene	<0.2

Note: The reporting limits were raised due to high moisture content in sample.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-11 1/5
Date Analyzed:	07/09/15	Data File:	070919.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	31	163
Benzo(a)anthracene-d12	84 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.022
Acenaphthylene	0.021
Acenaphthene	0.027
Fluorene	0.027
Phenanthrene	0.20
Anthracene	0.077
Fluoranthene	0.38
Pyrene	0.27
Benz(a)anthracene	0.19
Chrysene	0.33
Benzo(a)pyrene	0.27
Benzo(b)fluoranthene	0.49
Benzo(k)fluoranthene	0.15
Indeno(1,2,3-cd)pyrene	0.14
Dibenz(a,h)anthracene	0.036
Benzo(g,h,i)perylene	0.15
1-Methylnaphthalene	0.020
2-Methylnaphthalene	0.020

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/5
Date Analyzed:	07/07/15	Data File:	070712.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	31	163
Benzo(a)anthracene-d12	116 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.26
Acenaphthylene	0.16
Acenaphthene	0.36
Fluorene	0.54
Phenanthrene	4.0 ve
Anthracene	0.89
Fluoranthene	4.4 ve
Pyrene	4.1 ve
Benz(a)anthracene	2.2 ve
Chrysene	1.9 ve
Benzo(a)pyrene	2.2 ve J
Benzo(b)fluoranthene	2.9 ve J
Benzo(k)fluoranthene	1.1 J
Indeno(1,2,3-cd)pyrene	1.2 J
Dibenz(a,h)anthracene	0.25 J
Benzo(g,h,i)perylene	1.0 J
1-Methylnaphthalene	0.15
2-Methylnaphthalene	0.13

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/500
Date Analyzed:	07/08/15	Data File:	070806.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	710 d	31	163
Benzo(a)anthracene-d12	390 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<1
Acenaphthylene	<1
Acenaphthene	<1
Fluorene	<1
Phenanthrene	4.7
Anthracene	<1
Fluoranthene	5.3
Pyrene	4.3
Benz(a)anthracene	2.0
Chrysene	2.2
Benzo(a)pyrene	2.5
Benzo(b)fluoranthene	3.1
Benzo(k)fluoranthene	1.1
Indeno(1,2,3-cd)pyrene	1.9
Dibenz(a,h)anthracene	<1
Benzo(g,h,i)perylene	1.8
1-Methylnaphthalene	<1
2-Methylnaphthalene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-13 1/5
Date Analyzed:	07/08/15	Data File:	070821.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	146 d	31	163
Benzo(a)anthracene-d12	80 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.048
Anthracene	0.016
Fluoranthene	0.086
Pyrene	0.082
Benz(a)anthracene	0.051
Chrysene	0.11
Benzo(a)pyrene	0.066
Benzo(b)fluoranthene	0.12
Benzo(k)fluoranthene	0.038
Indeno(1,2,3-cd)pyrene	0.048
Dibenz(a,h)anthracene	0.012
Benzo(g,h,i)perylene	0.054
1-Methylnaphthalene	<0.01
2-Methylnaphthalene	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-10	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-14 1/5
Date Analyzed:	07/08/15	Data File:	070822.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	95 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.011
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.063
Anthracene	0.015
Fluoranthene	0.12
Pyrene	0.083
Benz(a)anthracene	0.037
Chrysene	0.063
Benzo(a)pyrene	0.059
Benzo(b)fluoranthene	0.10
Benzo(k)fluoranthene	0.032
Indeno(1,2,3-cd)pyrene	0.044
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.049
1-Methylnaphthalene	<0.01
2-Methylnaphthalene	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1387 mb 1/0.5
Date Analyzed:	07/07/15	Data File:	070704.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	31	163
Benzo(a)anthracene-d12	80	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.001
Acenaphthylene	<0.001
Acenaphthene	<0.001
Fluorene	<0.001
Phenanthrene	<0.001
Anthracene	<0.001
Fluoranthene	<0.001
Pyrene	<0.001
Benz(a)anthracene	<0.001
Chrysene	<0.001
Benzo(a)pyrene	<0.001
Benzo(b)fluoranthene	<0.001
Benzo(k)fluoranthene	<0.001
Indeno(1,2,3-cd)pyrene	<0.001
Dibenz(a,h)anthracene	<0.001
Benzo(g,h,i)perylene	<0.001
1-Methylnaphthalene	<0.001
2-Methylnaphthalene	<0.001

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-01 1/5
Date Analyzed:	07/07/15	Data File:	070705.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	82 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	92 d	31	164
2-Fluorobiphenyl	103 d	47	133
2,4,6-Tribromophenol	120 d	35	141
Terphenyl-d14	103 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-03 1/10,000
Date Analyzed:	07/08/15	Data File:	070804.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	0 d	56	115
Phenol-d6	0 d	54	113
Nitrobenzene-d5	0 d	31	164
2-Fluorobiphenyl	0 d	47	133
2,4,6-Tribromophenol	0 d	35	141
Terphenyl-d14	0 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<10,000
1,2,4-Trichlorobenzene	<200
Dibenzofuran	5,800
Bis(2-ethylhexyl) phthalate	<3,200

Note: The reporting limits were raised due to high moisture content in sample.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/0.5
Date Analyzed:	07/07/15	Data File:	070716.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	75	56	115
Phenol-d6	86	54	113
Nitrobenzene-d5	85	31	164
2-Fluorobiphenyl	94	47	133
2,4,6-Tribromophenol	109	35	141
Terphenyl-d14	255 ip J	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<0.25
1,2,4-Trichlorobenzene	<0.005
Dibenzofuran	0.051
Bis(2-ethylhexyl) phthalate	0.24 J fc

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/5
Date Analyzed:	07/07/15	Data File:	070707.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	74 d	56	115
Phenol-d6	84 d	54	113
Nitrobenzene-d5	80 d	31	164
2-Fluorobiphenyl	92 d	47	133
2,4,6-Tribromophenol	137 d	35	141
Terphenyl-d14	104 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	0.057
Bis(2-ethylhexyl) phthalate	<0.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/5
Date Analyzed:	07/07/15	Data File:	070708.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	79 d	56	115
Phenol-d6	85 d	54	113
Nitrobenzene-d5	95 d	31	164
2-Fluorobiphenyl	101 d	47	133
2,4,6-Tribromophenol	130 d	35	141
Terphenyl-d14	115 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-07 1/5
Date Analyzed:	07/07/15	Data File:	070709.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76 d	56	115
Phenol-d6	85 d	54	113
Nitrobenzene-d5	82 d	31	164
2-Fluorobiphenyl	96 d	47	133
2,4,6-Tribromophenol	132 d	35	141
Terphenyl-d14	108 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/50
Date Analyzed:	07/07/15	Data File:	070710.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	34 d	56	115
Phenol-d6	40 d	54	113
Nitrobenzene-d5	45 d	31	164
2-Fluorobiphenyl	55 d	47	133
2,4,6-Tribromophenol	240 d	35	141
Terphenyl-d14	65 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<25
1,2,4-Trichlorobenzene	<0.5
Dibenzofuran	<0.5
Bis(2-ethylhexyl) phthalate	<8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/0.5
Date Analyzed:	07/07/15	Data File:	070715.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86	56	115
Phenol-d6	95	54	113
Nitrobenzene-d5	128	31	164
2-Fluorobiphenyl	81 J	47	133
2,4,6-Tribromophenol	95 J	35	141
Terphenyl-d14	270 ip J	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<0.5
1,2,4-Trichlorobenzene	<0.01
Dibenzofuran	<0.01 J
Bis(2-ethylhexyl) phthalate	0.30 J fc

Note: The reporting limits were raised due to high moisture content in the sample.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/50
Date Analyzed:	07/08/15	Data File:	070805.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	47 d	56	115
Phenol-d6	47 d	54	113
Nitrobenzene-d5	70 d	31	164
2-Fluorobiphenyl	90 d	47	133
2,4,6-Tribromophenol	460 d	35	141
Terphenyl-d14	100 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<50
1,2,4-Trichlorobenzene	<1
Dibenzofuran	<1
Bis(2-ethylhexyl) phthalate	<16

Note: The reporting limits were raised due to high moisture content in the sample.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-11 1/5
Date Analyzed:	07/07/15	Data File:	070711.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	81 d	56	115
Phenol-d6	86 d	54	113
Nitrobenzene-d5	86 d	31	164
2-Fluorobiphenyl	93 d	47	133
2,4,6-Tribromophenol	125 d	35	141
Terphenyl-d14	130 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/5
Date Analyzed:	07/07/15	Data File:	070712.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86 d	56	115
Phenol-d6	93 d	54	113
Nitrobenzene-d5	107 d	31	164
2-Fluorobiphenyl	106 d	47	133
2,4,6-Tribromophenol	131 d	35	141
Terphenyl-d14	162 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	0.30
Bis(2-ethylhexyl) phthalate	<0.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-13 1/5
Date Analyzed:	07/07/15	Data File:	070713.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	83 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	89 d	31	164
2-Fluorobiphenyl	99 d	47	133
2,4,6-Tribromophenol	107 d	35	141
Terphenyl-d14	131 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-10	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-14 1/5
Date Analyzed:	07/07/15	Data File:	070714.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	87 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	88 d	31	164
2-Fluorobiphenyl	101 d	47	133
2,4,6-Tribromophenol	117 d	35	141
Terphenyl-d14	146 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1388 mb 1/0.5
Date Analyzed:	07/07/15	Data File:	070704.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	92	56	115
Phenol-d6	99	54	113
Nitrobenzene-d5	103	31	164
2-Fluorobiphenyl	121	47	133
2,4,6-Tribromophenol	109	35	141
Terphenyl-d14	127	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<0.25
1,2,4-Trichlorobenzene	<0.005
Dibenzofuran	<0.005
Bis(2-ethylhexyl) phthalate	<0.08

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-05 1/0.5
Date Analyzed:	07/08/15	Data File:	070809.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72	32	162
Phenol-d6	50	10	170
Nitrobenzene-d5	122	50	150
2-Fluorobiphenyl	132	43	158
2,4,6-Tribromophenol	133	43	146
Terphenyl-d14	134	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-08 1/0.5
Date Analyzed:	07/08/15	Data File:	070810.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	57	32	162
Phenol-d6	39	10	170
Nitrobenzene-d5	101	50	150
2-Fluorobiphenyl	106	43	158
2,4,6-Tribromophenol	109	43	146
Terphenyl-d14	104	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-15 1/0.5
Date Analyzed:	07/08/15	Data File:	070811.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	110	50	150
2-Fluorobiphenyl	109	43	158
2,4,6-Tribromophenol	126	43	146
Terphenyl-d14	111	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-16 1/0.5
Date Analyzed:	07/08/15	Data File:	070812.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	45	10	170
Nitrobenzene-d5	113	50	150
2-Fluorobiphenyl	121	43	158
2,4,6-Tribromophenol	112	43	146
Terphenyl-d14	113	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-17 1/0.5
Date Analyzed:	07/08/15	Data File:	070813.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	62	32	162
Phenol-d6	43	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	116	43	158
2,4,6-Tribromophenol	126	43	146
Terphenyl-d14	117	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-18 1/0.5
Date Analyzed:	07/08/15	Data File:	070814.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	106	50	150
2-Fluorobiphenyl	110	43	158
2,4,6-Tribromophenol	114	43	146
Terphenyl-d14	107	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	05-1390 mb 1/0.5
Date Analyzed:	07/08/15	Data File:	070808.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	116	43	158
2,4,6-Tribromophenol	102	43	146
Terphenyl-d14	110	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-05 1/0.5
Date Analyzed:	07/08/15	Data File:	070813.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	101	31	160
Benzo(a)anthracene-d12	84	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.033
Acenaphthylene	<0.025
Acenaphthene	0.33
Fluorene	<0.025
Phenanthrene	0.031
Anthracene	<0.025
Fluoranthene	0.035
Pyrene	0.035
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-08 1/0.5
Date Analyzed:	07/08/15	Data File:	070814.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	110	31	160
Benzo(a)anthracene-d12	87	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	<0.025
Phenanthrene	0.033
Anthracene	<0.025
Fluoranthene	0.030
Pyrene	0.030
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-15 1/0.5
Date Analyzed:	07/08/15	Data File:	070815.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	99	31	160
Benzo(a)anthracene-d12	92	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	3.3
Fluorene	0.028
Phenanthrene	0.053
Anthracene	0.047
Fluoranthene	2.0
Pyrene	1.2
Benz(a)anthracene	0.14
Chrysene	0.084
Benzo(a)pyrene	0.089
Benzo(b)fluoranthene	0.18
Benzo(k)fluoranthene	0.051
Indeno(1,2,3-cd)pyrene	0.073
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	0.074
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-16 1/0.5
Date Analyzed:	07/08/15	Data File:	070816.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	104	31	160
Benzo(a)anthracene-d12	90	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	<0.025
Phenanthrene	0.038
Anthracene	<0.025
Fluoranthene	0.028
Pyrene	<0.025
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-17 1/0.5
Date Analyzed:	07/08/15	Data File:	070817.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	110	31	160
Benzo(a)anthracene-d12	118	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.47
Acenaphthylene	<0.025
Acenaphthene	0.11
Fluorene	0.041
Phenanthrene	0.050
Anthracene	<0.025
Fluoranthene	0.19
Pyrene	0.28
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	0.033
2-Methylnaphthalene	0.026

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-18 1/0.5
Date Analyzed:	07/08/15	Data File:	070818.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	118	31	160
Benzo(a)anthracene-d12	93	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	0.033
Phenanthrene	0.037
Anthracene	<0.025
Fluoranthene	<0.025
Pyrene	2.2
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	0.028
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	05-1391 mb 1/0.5
Date Analyzed:	07/08/15	Data File:	070808.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	103	31	160
Benzo(a)anthracene-d12	81	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	<0.025
Phenanthrene	<0.025
Anthracene	<0.025
Fluoranthene	<0.025
Pyrene	<0.025
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-01 1/5
Date Analyzed:	07/06/15	Data File:	07.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	87	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.041

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/5
Date Analyzed:	07/06/15	Data File:	09.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.051

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/5
Date Analyzed:	07/08/15	Data File:	11.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	100	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.60
Aroclor 1260	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-07 1/5
Date Analyzed:	07/06/15	Data File:	11.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	74	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/5
Date Analyzed:	07/08/15	Data File:	08.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.18
Aroclor 1260	0.093

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/5
Date Analyzed:	07/08/15	Data File:	09.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	81	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.04
Aroclor 1232	<0.04
Aroclor 1016	<0.04
Aroclor 1242	<0.04
Aroclor 1248	<0.04
Aroclor 1254	0.40
Aroclor 1260	<0.04

Note: The reporting limits were raised due to high moisture content in sample.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-11 1/5
Date Analyzed:	07/08/15	Data File:	12.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.39
Aroclor 1260	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/5
Date Analyzed:	07/08/15	Data File:	14.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	94	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.19
Aroclor 1260	0.10

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-13 1/5
Date Analyzed:	07/08/15	Data File:	10.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.039
Aroclor 1260	0.027

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-10	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-14 1/5
Date Analyzed:	07/07/15	Data File:	18.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	100	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.071

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1384 mb 1/5
Date Analyzed:	07/06/15	Data File:	06.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	104	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-05 1/0.25
Date Analyzed:	07/09/15	Data File:	07.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	50	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-08 1/0.25
Date Analyzed:	07/09/15	Data File:	08.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	49	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-15 1/0.25
Date Analyzed:	07/09/15	Data File:	09.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	32	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	0.054
Aroclor 1260	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-16 1/0.25
Date Analyzed:	07/09/15	Data File:	10.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	43	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-17 1/0.25
Date Analyzed:	07/09/15	Data File:	11.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	54	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-18 1/0.25
Date Analyzed:	07/09/15	Data File:	12.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	42	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	05-1397 mb 1/0.25
Date Analyzed:	07/09/15	Data File:	06.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	51	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

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

Laboratory Code: 507123-01 (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	105	103	63-146	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	107	79-144

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 507052-06 1/50 (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	4,640	0 b	911 b	67-121	200 b
Cadmium	mg/kg (ppm)	10	<50	95	110	88-121	15
Chromium	mg/kg (ppm)	50	120	88 b	108 b	57-128	20 b
Copper	mg/kg (ppm)	50	3,260	0 b	0 b	53-127	0 b
Lead	mg/kg (ppm)	50	2,900	307 b	527 b	59-148	53 b
Zinc	mg/kg (ppm)	50	12,300	0 b	88 b	42-122	200 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	99	83-113
Cadmium	mg/kg (ppm)	10	105	85-114
Chromium	mg/kg (ppm)	50	95	78-121
Copper	mg/kg (ppm)	50	98	77-126
Lead	mg/kg (ppm)	50	97	80-120
Zinc	mg/kg (ppm)	50	89	71-116

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 507052-05 1/10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	40.1	87	89	60-150	2
Cadmium	ug/L (ppb)	5	<10	89	88	80-124	1
Chromium	ug/L (ppb)	20	<10	116	97	64-132	18
Copper	ug/L (ppb)	20	97.5	93 b	124 b	38-149	29 b
Lead	ug/L (ppb)	10	<10	88	84	79-121	5
Zinc	ug/L (ppb)	50	16.2	93 b	70 b	55-141	28 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	100	80-111
Cadmium	ug/L (ppb)	5	101	83-113
Chromium	ug/L (ppb)	20	99	80-119
Copper	ug/L (ppb)	20	101	78-123
Lead	ug/L (ppb)	10	104	83-115
Zinc	ug/L (ppb)	50	92	76-124

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
TOTAL MERCURY  
USING EPA METHOD 1631E**

Laboratory Code: 507052-06 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	0.27	33 b	28 b	62-136	16 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	104	68-125

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
TOTAL MERCURY  
USING EPA METHOD 1631E**

Laboratory Code: 507052-16 1/10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	ug/L (ppb)	0.01	0.28	18 b	32 b	66-123	56 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	ug/L (ppb)	0.01	87	79-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SPLP METALS USING  
EPA METHOD 200.8**

Laboratory Code: 507052-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	104	105	50-150	1
Copper	mg/L (ppm)	2.0	<1	100	103	50-150	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS		Acceptance Criteria
			Recovery	LCS	
Arsenic	mg/L (ppm)	1.0	105		70-130
Copper	mg/L (ppm)	2.0	100		70-130

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL  
SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM**

Laboratory Code: 507052-04 1/0.5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	0.058	95 b	0 b	44-129	nm
2-Methylnaphthalene	mg/kg (ppm)	0.17	0.043	14 b	0 b	45-135	nm
1-Methylnaphthalene	mg/kg (ppm)	0.17	0.035	24 b	0 b	40-141	nm
Acenaphthylene	mg/kg (ppm)	0.17	0.035	102 b	0 b	52-121	nm
Acenaphthene	mg/kg (ppm)	0.17	0.037	79 b	0 b	51-123	nm
Fluorene	mg/kg (ppm)	0.17	0.047	127 b	0 b	37-137	nm
Phenanthrene	mg/kg (ppm)	0.17	0.41 ve	930 b	0 b	34-141	nm
Anthracene	mg/kg (ppm)	0.17	0.17 ve	405 b	0 b	32-124	nm
Fluoranthene	mg/kg (ppm)	0.17	0.50 ve	2266 b	0 b	16-160	nm
Pyrene	mg/kg (ppm)	0.17	0.61 ve	2433 b	0 b	10-180	nm
Benz(a)anthracene	mg/kg (ppm)	0.17	0.76 ve	0 b	0 b	23-144	nm
Chrysene	mg/kg (ppm)	0.17	0.97 ve	2779 b	0 b	32-149	nm
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	1.4 J ve	4386 b J	0 b J	23-176	nm
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	0.27 J ve	1748 b J	26 b J	42-139	194 b
Benzo(a)pyrene	mg/kg (ppm)	0.17	0.78 J ve	2057 b J	0 b J	21-163	nm
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	0.51 J ve	1148 b J	0 b J	23-170	nm
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	0.14 J ve	286 b J	0 b J	31-146	nm
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	0.54 J ve	774 b J	0 b J	37-133	nm

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	61	58-121
2-Methylnaphthalene	mg/kg (ppm)	0.17	65	58-123
1-Methylnaphthalene	mg/kg (ppm)	0.17	66	60-124
Acenaphthylene	mg/kg (ppm)	0.17	85	54-121
Acenaphthene	mg/kg (ppm)	0.17	87	54-123
Fluorene	mg/kg (ppm)	0.17	92	56-127
Phenanthrene	mg/kg (ppm)	0.17	96	55-122
Anthracene	mg/kg (ppm)	0.17	85	50-120
Fluoranthene	mg/kg (ppm)	0.17	98	54-129
Pyrene	mg/kg (ppm)	0.17	91	53-127
Benz(a)anthracene	mg/kg (ppm)	0.17	85	51-115
Chrysene	mg/kg (ppm)	0.17	89	55-129
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	117	56-123
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	122	54-131
Benzo(a)pyrene	mg/kg (ppm)	0.17	91	51-118
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	94	49-148
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	96	50-141
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	94	52-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 507052-14 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzoic acid	mg/kg (ppm)	0.25	<2.5	24	18	10-250	29 vo
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.17	<0.05	74	80	50-150	8
Dibenzofuran	mg/kg (ppm)	0.17	<0.05	100	107	47-149	7
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.17	<0.8	297 b J	234 b J	10-250	24 vo

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzoic acid	mg/kg (ppm)	0.25	87	43-150
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.17	69	56-112
Dibenzofuran	mg/kg (ppm)	0.17	98	56-115
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.17	104	56-155

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzoic acid	ug/L (ppb)	33	33	36	10-110	9
1,2,4-Trichlorobenzene	ug/L (ppb)	5	96	64	50-109	40 vo
Dibenzofuran	ug/L (ppb)	5	117 vo	105	53-113	11
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	5	127 vo	118	54-122	7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM**

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	0.5	82	89	67-116	8
2-Methylnaphthalene	ug/L (ppb)	0.5	78	84	63-122	7
1-Methylnaphthalene	ug/L (ppb)	0.5	81	87	65-122	7
Acenaphthylene	ug/L (ppb)	0.5	102	108	65-119	6
Acenaphthene	ug/L (ppb)	0.5	98	103	66-118	5
Fluorene	ug/L (ppb)	0.5	98	100	64-125	2
Phenanthrene	ug/L (ppb)	0.5	104	102	67-120	2
Anthracene	ug/L (ppb)	0.5	103	100	65-122	3
Fluoranthene	ug/L (ppb)	0.5	103	100	65-127	3
Pyrene	ug/L (ppb)	0.5	103	105	62-130	2
Benz(a)anthracene	ug/L (ppb)	0.5	94	93	60-118	1
Chrysene	ug/L (ppb)	0.5	96	95	66-125	1
Benzo(b)fluoranthene	ug/L (ppb)	0.5	109	113	55-135	4
Benzo(k)fluoranthene	ug/L (ppb)	0.5	122	124	62-125	2
Benzo(a)pyrene	ug/L (ppb)	0.5	112	114	58-127	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	0.5	119	117	36-142	2
Dibenz(a,h)anthracene	ug/L (ppb)	0.5	127	115	37-133	10
Benzo(g,h,i)perylene	ug/L (ppb)	0.5	127	122	34-135	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCOLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 507052-11 1/5 (Matrix Spike) 1/5

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.02	103	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.02	124	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	93	90	55-130	3
Aroclor 1260	mg/kg (ppm)	0.8	96	91	58-133	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/14/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample 1/0.25

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	78	76	37-136	3
Aroclor 1260	ug/L (ppb)	2.5	83	77	41-135	7

FRIEDMAN & BRUYA, INC.

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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.
- 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.

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

204/B24/K14  
C13

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave., Suite 201  
 City, State, ZIP Seattle, WA 98101  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO. <u>Snopac</u>	PO# <u>150054</u>
REMARKS <u>Pb, Hg, Zn</u>	

Page # 1 of 2

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED									Notes
						TPH-Diesel	T <sub>OC</sub> TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs	PCBs	metals	As, Cd, Cr, Cu, Pb, Hg, Zn
SSA - 1	01A-B	7/2/15	1035	soil	2			X		X	X	X	X		*-perKL
ING - 1	02A-E		1030		5			X		X		X			7/8/15 64
PILE - 1	03A-B		1040		2	*		X							*-perKL
SSA - 2	04A-B		1045		2	*		X		X	X	X			7/13/15 me
ASP - 2	05A-D		1135	water	4			X		X	X	X			
SSA - 3	06A-C		1100	soil	3			X		X	X	X	X		
SSA - 4	07A-B		1105		1	2	*		X	X	X	X			
ASP - 1	08A-D		1115	water	4			X		X	X	X			
SSA - 5	09A-B		1120	soil	2	*		X		X	X	X			
SSA - 6	10A-B		1130	T	2			X		X	X	X			Samples received at 6pm

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: <u>Dave</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Dave</u>	David	Fe B+	11	13:50
Relinquished by:				
Received by:				

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

DOY 1824/AZ4

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO.	PO#
<u>Snapac</u>	<u>150054</u>
REMARKS <i>Pb, Hg, Zn</i>	

Page # 2 of 2

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED							Notes	
						TPH-Diesel <del>TPH Gasoline</del>	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PAHs	PCB	metals As, Cd, Cu, Zn	
SSA-7	11AB72/15	1145		Soil	1	X	X	X	X	X	X	X	X	
SSA-8	12AC	1200			3	*	X	X	X	X	X	X	X	X
SSA-9	13AB	1210			2	*	X	X	X	X	X	X	X	
SSA-10	14 T	1220			2	*	X	X	X	X	X	X	X	
ASP-3	15AD	1200		water	1	X	X	X	X	X	X	X	X	
ASP-4	16 T	1210			4	X	X	X	X	X	X	X	X	
ASP-5	17	1240			4	X	X	X	X	X	X	X	X	
ASP-6	18	1250			4	X	X	X	X	X	X	X	X	

Samples received at 6 PM

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

SIGNATURE <i>Kirsi Longley</i>	PRINT NAME <i>Kirsi Longley</i>	COMPANY <i>Aspect</i>	DATE <i>7/2/15</i>	TIME <i>1350</i>
Relinquished by: <i>D. C. S.</i>	Received by: <i>D. C. S.</i>	Relinquished by: <i>D. C. S.</i>	Received by: <i>D. C. S.</i>	

**DRAFT**

Date of Report: 07/10/15

Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

Date Extracted: 07/10/15

Date Analyzed: 07/10/15

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 48-168)
PILE-1 507052-03 1/10	290,000 x	67,000 x	ip
Method Blank 05-1414 MB2	<50	<250	114

## Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: ING-1  
 Date Received: 07/02/15  
 Date Extracted: 07/06/15  
 Date Analyzed: 07/07/15  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 507052  
 Lab ID: 507052-02  
 Data File: 070736.D  
 Instrument: GCMS9  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	95	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

## Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 07/07/15  
 Date Analyzed: 07/07/15  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 507052  
 Lab ID: 05-1377 mb  
 Data File: 070728.D  
 Instrument: GCMS9  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	94	64	137
4-Bromofluorobenzene	97	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-01 1/5
Date Analyzed:	07/07/15	Data File:	070705.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	100 d	31	163
Benzo(a)anthracene-d12	107 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.079
Acenaphthylene	0.027
Acenaphthene	0.022
Fluorene	0.046
Phenanthrene	0.32
Anthracene	0.16
Fluoranthene	0.65
Pyrene	0.46
Benz(a)anthracene	0.78
Chrysene	0.82
Benzo(a)pyrene	0.64
Benzo(b)fluoranthene	1.1
Benzo(k)fluoranthene	0.43
Indeno(1,2,3-cd)pyrene	0.30
Dibenz(a,h)anthracene	0.085
Benzo(g,h,i)perylene	0.26
1-Methylnaphthalene	0.075
2-Methylnaphthalene	0.097

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-03 1/10,000
Date Analyzed:	07/08/15	Data File:	070805.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	0 d	31	163
Benzo(a)anthracene-d12	0 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	31,000 ve
Acenaphthylene	220
Acenaphthene	9,600 ve
Fluorene	7,000 ve
Phenanthrene	22,000 ve
Anthracene	6,200 ve
Fluoranthene	9,500 ve
Pyrene	7,500 ve
Benz(a)anthracene	2,200
Chrysene	2,400
Benzo(a)pyrene	1,400
Benzo(b)fluoranthene	1,900
Benzo(k)fluoranthene	520
Indeno(1,2,3-cd)pyrene	470
Dibenz(a,h)anthracene	160
Benzo(g,h,i)perylene	510
1-Methylnaphthalene	6,600 ve
2-Methylnaphthalene	9,000 ve

Note: The reporting limits were raised due to high moisture content in sample.

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-03 1/1,000,000
Date Analyzed:	07/09/15	Data File:	070920.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	0 d	31	163
Benzo(a)anthracene-d12	0 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	41,000
Acenaphthylene	<4,000
Acenaphthene	11,000
Fluorene	8,500
Phenanthrene	27,000
Anthracene	7,000
Fluoranthene	11,000
Pyrene	9,000
Benz(a)anthracene	<4,000
Chrysene	<4,000
Benzo(a)pyrene	<4,000
Benzo(b)fluoranthene	<4,000
Benzo(k)fluoranthene	<4,000
Indeno(1,2,3-cd)pyrene	<4,000
Dibenz(a,h)anthracene	<4,000
Benzo(g,h,i)perylene	<4,000
1-Methylnaphthalene	8,100
2-Methylnaphthalene	10,000

Note: The reporting limits were raised due to high moisture content in sample.

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/0.5
Date Analyzed:	07/07/15	Data File:	070718.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	100	31	163
Benzo(a)anthracene-d12	96	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.071
Acenaphthylene	0.042
Acenaphthene	0.045
Fluorene	0.058
Phenanthrene	0.50 ve
Anthracene	0.20 ve
Fluoranthene	0.60 ve
Pyrene	0.74 ve
Benz(a)anthracene	0.93 ve
Chrysene	1.2 ve
Benzo(a)pyrene	0.95 ve J
Benzo(b)fluoranthene	1.7 ve J
Benzo(k)fluoranthene	0.33 ve J
Indeno(1,2,3-cd)pyrene	0.62 ve J
Dibenz(a,h)anthracene	0.17 ve J
Benzo(g,h,i)perylene	0.66 ve J
1-Methylnaphthalene	0.043
2-Methylnaphthalene	0.053

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/50
Date Analyzed:	07/08/15	Data File:	070820.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	404 d	31	163
Benzo(a)anthracene-d12	156 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	0.62
Anthracene	0.20
Fluoranthene	0.83
Pyrene	0.76
Benz(a)anthracene	0.60
Chrysene	1.5
Benzo(a)pyrene	1.2
Benzo(b)fluoranthene	1.6
Benzo(k)fluoranthene	0.59
Indeno(1,2,3-cd)pyrene	1.1
Dibenz(a,h)anthracene	0.26
Benzo(g,h,i)perylene	1.4
1-Methylnaphthalene	<0.1
2-Methylnaphthalene	<0.1

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/5
Date Analyzed:	07/07/15	Data File:	070708.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90 d	31	163
Benzo(a)anthracene-d12	110 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.032
Acenaphthylene	0.019
Acenaphthene	0.069
Fluorene	0.054
Phenanthrene	0.64
Anthracene	0.14
Fluoranthene	0.99
Pyrene	1.1
Benz(a)anthracene	0.59
Chrysene	0.73
Benzo(a)pyrene	0.79 J
Benzo(b)fluoranthene	1.0 J
Benzo(k)fluoranthene	0.35 J
Indeno(1,2,3-cd)pyrene	0.50 J
Dibenz(a,h)anthracene	0.12 J
Benzo(g,h,i)perylene	0.44 J
1-Methylnaphthalene	0.028
2-Methylnaphthalene	0.023

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/50
Date Analyzed:	07/08/15	Data File:	070819.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	913 d	31	163
Benzo(a)anthracene-d12	140 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	0.70
Anthracene	0.14
Fluoranthene	1.2
Pyrene	1.2
Benz(a)anthracene	0.60
Chrysene	0.79
Benzo(a)pyrene	0.83
Benzo(b)fluoranthene	1.0
Benzo(k)fluoranthene	0.40
Indeno(1,2,3-cd)pyrene	0.58
Dibenz(a,h)anthracene	0.14
Benzo(g,h,i)perylene	0.60
1-Methylnaphthalene	<0.1
2-Methylnaphthalene	<0.1

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-07 1/5
Date Analyzed:	07/07/15	Data File:	070709.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	31	163
Benzo(a)anthracene-d12	87 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.044
Acenaphthylene	0.018
Acenaphthene	0.038
Fluorene	0.034
Phenanthrene	0.36
Anthracene	0.078
Fluoranthene	0.53
Pyrene	0.49
Benz(a)anthracene	0.27
Chrysene	0.53
Benzo(a)pyrene	0.38
Benzo(b)fluoranthene	0.71
Benzo(k)fluoranthene	0.24
Indeno(1,2,3-cd)pyrene	0.25
Dibenz(a,h)anthracene	0.067
Benzo(g,h,i)perylene	0.25
1-Methylnaphthalene	0.030
2-Methylnaphthalene	0.036

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/50
Date Analyzed:	07/07/15	Data File:	070710.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	106 d	31	163
Benzo(a)anthracene-d12	93 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.19
Acenaphthylene	<0.1
Acenaphthene	0.24
Fluorene	0.25
Phenanthrene	3.0
Anthracene	0.58
Fluoranthene	4.1
Pyrene	4.2
Benz(a)anthracene	2.0
Chrysene	2.4
Benzo(a)pyrene	2.2 J
Benzo(b)fluoranthene	2.9 J
Benzo(k)fluoranthene	1.1 J
Indeno(1,2,3-cd)pyrene	1.1 J
Dibenz(a,h)anthracene	0.31 J
Benzo(g,h,i)perylene	1.0 J
1-Methylnaphthalene	0.11
2-Methylnaphthalene	0.087

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/500
Date Analyzed:	07/10/15	Data File:	071004.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	700 d	31	163
Benzo(a)anthracene-d12	25 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<1
Acenaphthylene	<1
Acenaphthene	<1
Fluorene	<1
Phenanthrene	2.3
Anthracene	<1
Fluoranthene	3.4
Pyrene	3.3
Benz(a)anthracene	1.4
Chrysene	1.8
Benzo(a)pyrene	1.7
Benzo(b)fluoranthene	2.0
Benzo(k)fluoranthene	<1
Indeno(1,2,3-cd)pyrene	1.0
Dibenz(a,h)anthracene	<1
Benzo(g,h,i)perylene	1.1
1-Methylnaphthalene	<1
2-Methylnaphthalene	<1

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/50
Date Analyzed:	07/08/15	Data File:	070807.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	62 d	31	163
Benzo(a)anthracene-d12	405 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	0.52
Pyrene	1.8
Benz(a)anthracene	0.46
Chrysene	0.58
Benzo(a)pyrene	0.31
Benzo(b)fluoranthene	0.53
Benzo(k)fluoranthene	<0.2
Indeno(1,2,3-cd)pyrene	<0.2
Dibenz(a,h)anthracene	<0.2
Benzo(g,h,i)perylene	0.21
1-Methylnaphthalene	<0.2
2-Methylnaphthalene	<0.2

Note: The reporting limits were raised due to high moisture content in sample.

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-11 1/5
Date Analyzed:	07/09/15	Data File:	070919.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	31	163
Benzo(a)anthracene-d12	84 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.022
Acenaphthylene	0.021
Acenaphthene	0.027
Fluorene	0.027
Phenanthrene	0.20
Anthracene	0.077
Fluoranthene	0.38
Pyrene	0.27
Benz(a)anthracene	0.19
Chrysene	0.33
Benzo(a)pyrene	0.27
Benzo(b)fluoranthene	0.49
Benzo(k)fluoranthene	0.15
Indeno(1,2,3-cd)pyrene	0.14
Dibenz(a,h)anthracene	0.036
Benzo(g,h,i)perylene	0.15
1-Methylnaphthalene	0.020
2-Methylnaphthalene	0.020

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/5
Date Analyzed:	07/07/15	Data File:	070712.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	31	163
Benzo(a)anthracene-d12	116 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.26
Acenaphthylene	0.16
Acenaphthene	0.36
Fluorene	0.54
Phenanthrene	4.0 ve
Anthracene	0.89
Fluoranthene	4.4 ve
Pyrene	4.1 ve
Benz(a)anthracene	2.2 ve
Chrysene	1.9 ve
Benzo(a)pyrene	2.2 ve J
Benzo(b)fluoranthene	2.9 ve J
Benzo(k)fluoranthene	1.1 J
Indeno(1,2,3-cd)pyrene	1.2 J
Dibenz(a,h)anthracene	0.25 J
Benzo(g,h,i)perylene	1.0 J
1-Methylnaphthalene	0.15
2-Methylnaphthalene	0.13

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/500
Date Analyzed:	07/08/15	Data File:	070806.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	710 d	31	163
Benzo(a)anthracene-d12	390 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<1
Acenaphthylene	<1
Acenaphthene	<1
Fluorene	<1
Phenanthrene	4.7
Anthracene	<1
Fluoranthene	5.3
Pyrene	4.3
Benz(a)anthracene	2.0
Chrysene	2.2
Benzo(a)pyrene	2.5
Benzo(b)fluoranthene	3.1
Benzo(k)fluoranthene	1.1
Indeno(1,2,3-cd)pyrene	1.9
Dibenz(a,h)anthracene	<1
Benzo(g,h,i)perylene	1.8
1-Methylnaphthalene	<1
2-Methylnaphthalene	<1

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-13 1/5
Date Analyzed:	07/08/15	Data File:	070821.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	146 d	31	163
Benzo(a)anthracene-d12	80 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.048
Anthracene	0.016
Fluoranthene	0.086
Pyrene	0.082
Benz(a)anthracene	0.051
Chrysene	0.11
Benzo(a)pyrene	0.066
Benzo(b)fluoranthene	0.12
Benzo(k)fluoranthene	0.038
Indeno(1,2,3-cd)pyrene	0.048
Dibenz(a,h)anthracene	0.012
Benzo(g,h,i)perylene	0.054
1-Methylnaphthalene	<0.01
2-Methylnaphthalene	<0.01

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID: SSA-10  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/08/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-14 1/5  
Data File: 070822.D  
Instrument: GCMS6  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	137 d	31	163
Benzo(a)anthracene-d12	95 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.011
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.063
Anthracene	0.015
Fluoranthene	0.12
Pyrene	0.083
Benz(a)anthracene	0.037
Chrysene	0.063
Benzo(a)pyrene	0.059
Benzo(b)fluoranthene	0.10
Benzo(k)fluoranthene	0.032
Indeno(1,2,3-cd)pyrene	0.044
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.049
1-Methylnaphthalene	<0.01
2-Methylnaphthalene	<0.01

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1387 mb 1/0.5
Date Analyzed:	07/07/15	Data File:	070704.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	31	163
Benzo(a)anthracene-d12	80	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.001
Acenaphthylene	<0.001
Acenaphthene	<0.001
Fluorene	<0.001
Phenanthrene	<0.001
Anthracene	<0.001
Fluoranthene	<0.001
Pyrene	<0.001
Benz(a)anthracene	<0.001
Chrysene	<0.001
Benzo(a)pyrene	<0.001
Benzo(b)fluoranthene	<0.001
Benzo(k)fluoranthene	<0.001
Indeno(1,2,3-cd)pyrene	<0.001
Dibenz(a,h)anthracene	<0.001
Benzo(g,h,i)perylene	<0.001
1-Methylnaphthalene	<0.001
2-Methylnaphthalene	<0.001

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-01 1/5
Date Analyzed:	07/07/15	Data File:	070705.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	82 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	92 d	31	164
2-Fluorobiphenyl	103 d	47	133
2,4,6-Tribromophenol	120 d	35	141
Terphenyl-d14	103 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-03 1/10,000
Date Analyzed:	07/08/15	Data File:	070804.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	0 d	56	115
Phenol-d6	0 d	54	113
Nitrobenzene-d5	0 d	31	164
2-Fluorobiphenyl	0 d	47	133
2,4,6-Tribromophenol	0 d	35	141
Terphenyl-d14	0 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<10,000
1,2,4-Trichlorobenzene	<200
Dibenzofuran	5,800
Bis(2-ethylhexyl) phthalate	<3,200

Note: The reporting limits were raised due to high moisture content in sample.

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: SSA-2  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/07/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-04 1/0.5  
Data File: 070716.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	75	56	115
Phenol-d6	86	54	113
Nitrobenzene-d5	85	31	164
2-Fluorobiphenyl	94	47	133
2,4,6-Tribromophenol	109	35	141
Terphenyl-d14	255 ip J	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<0.25
1,2,4-Trichlorobenzene	<0.005
Dibenzofuran	0.051
Bis(2-ethylhexyl) phthalate	0.24 J fc

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/5
Date Analyzed:	07/07/15	Data File:	070707.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	74 d	56	115
Phenol-d6	84 d	54	113
Nitrobenzene-d5	80 d	31	164
2-Fluorobiphenyl	92 d	47	133
2,4,6-Tribromophenol	137 d	35	141
Terphenyl-d14	104 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	0.057
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: SSA-3  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/07/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-06 1/5  
Data File: 070708.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	79 d	56	115
Phenol-d6	85 d	54	113
Nitrobenzene-d5	95 d	31	164
2-Fluorobiphenyl	101 d	47	133
2,4,6-Tribromophenol	130 d	35	141
Terphenyl-d14	115 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-07 1/5
Date Analyzed:	07/07/15	Data File:	070709.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76 d	56	115
Phenol-d6	85 d	54	113
Nitrobenzene-d5	82 d	31	164
2-Fluorobiphenyl	96 d	47	133
2,4,6-Tribromophenol	132 d	35	141
Terphenyl-d14	108 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: SSA-5  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/07/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-09 1/50  
Data File: 070710.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	34 d	56	115
Phenol-d6	40 d	54	113
Nitrobenzene-d5	45 d	31	164
2-Fluorobiphenyl	55 d	47	133
2,4,6-Tribromophenol	240 d	35	141
Terphenyl-d14	65 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<25
1,2,4-Trichlorobenzene	<0.5
Dibenzofuran	<0.5
Bis(2-ethylhexyl) phthalate	<8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/0.5
Date Analyzed:	07/07/15	Data File:	070715.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86	56	115
Phenol-d6	95	54	113
Nitrobenzene-d5	128	31	164
2-Fluorobiphenyl	81 J	47	133
2,4,6-Tribromophenol	95 J	35	141
Terphenyl-d14	270 ip J	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<0.5
1,2,4-Trichlorobenzene	<0.01
Dibenzofuran	<0.01 J
Bis(2-ethylhexyl) phthalate	0.30 J fc

Note: The reporting limits were raised due to high moisture content in the sample.

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/50
Date Analyzed:	07/08/15	Data File:	070805.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	47 d	56	115
Phenol-d6	47 d	54	113
Nitrobenzene-d5	70 d	31	164
2-Fluorobiphenyl	90 d	47	133
2,4,6-Tribromophenol	460 d	35	141
Terphenyl-d14	100 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<50
1,2,4-Trichlorobenzene	<1
Dibenzofuran	<1
Bis(2-ethylhexyl) phthalate	<16

Note: The reporting limits were raised due to high moisture content in the sample.

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: SSA-7  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/07/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-11 1/5  
Data File: 070711.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	81 d	56	115
Phenol-d6	86 d	54	113
Nitrobenzene-d5	86 d	31	164
2-Fluorobiphenyl	93 d	47	133
2,4,6-Tribromophenol	125 d	35	141
Terphenyl-d14	130 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: SSA-8  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/07/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-12 1/5  
Data File: 070712.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86 d	56	115
Phenol-d6	93 d	54	113
Nitrobenzene-d5	107 d	31	164
2-Fluorobiphenyl	106 d	47	133
2,4,6-Tribromophenol	131 d	35	141
Terphenyl-d14	162 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	0.30
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-13 1/5
Date Analyzed:	07/07/15	Data File:	070713.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	83 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	89 d	31	164
2-Fluorobiphenyl	99 d	47	133
2,4,6-Tribromophenol	107 d	35	141
Terphenyl-d14	131 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: SSA-10  
Date Received: 07/02/15  
Date Extracted: 07/06/15  
Date Analyzed: 07/07/15  
Matrix: Soil  
Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-14 1/5  
Data File: 070714.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	87 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	88 d	31	164
2-Fluorobiphenyl	101 d	47	133
2,4,6-Tribromophenol	117 d	35	141
Terphenyl-d14	146 d	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<2.5
1,2,4-Trichlorobenzene	<0.05
Dibenzofuran	<0.05
Bis(2-ethylhexyl) phthalate	<0.8

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1388 mb 1/0.5
Date Analyzed:	07/07/15	Data File:	070704.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	92	56	115
Phenol-d6	99	54	113
Nitrobenzene-d5	103	31	164
2-Fluorobiphenyl	121	47	133
2,4,6-Tribromophenol	109	35	141
Terphenyl-d14	127	24	188

Compounds:	Concentration mg/kg (ppm)
Benzoic acid	<0.25
1,2,4-Trichlorobenzene	<0.005
Dibenzofuran	<0.005
Bis(2-ethylhexyl) phthalate	<0.08

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: ASP-2  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-05 1/0.5  
Data File: 070809.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72	32	162
Phenol-d6	50	10	170
Nitrobenzene-d5	122	50	150
2-Fluorobiphenyl	132	43	158
2,4,6-Tribromophenol	133	43	146
Terphenyl-d14	134	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: ASP-1  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-08 1/0.5  
Data File: 070810.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	57	32	162
Phenol-d6	39	10	170
Nitrobenzene-d5	101	50	150
2-Fluorobiphenyl	106	43	158
2,4,6-Tribromophenol	109	43	146
Terphenyl-d14	104	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: ASP-3  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-15 1/0.5  
Data File: 070811.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	110	50	150
2-Fluorobiphenyl	109	43	158
2,4,6-Tribromophenol	126	43	146
Terphenyl-d14	111	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: ASP-4  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-16 1/0.5  
Data File: 070812.D  
Instrument: GCMS8  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	45	10	170
Nitrobenzene-d5	113	50	150
2-Fluorobiphenyl	121	43	158
2,4,6-Tribromophenol	112	43	146
Terphenyl-d14	113	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-17 1/0.5
Date Analyzed:	07/08/15	Data File:	070813.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	62	32	162
Phenol-d6	43	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	116	43	158
2,4,6-Tribromophenol	126	43	146
Terphenyl-d14	117	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-18 1/0.5
Date Analyzed:	07/08/15	Data File:	070814.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	106	50	150
2-Fluorobiphenyl	110	43	158
2,4,6-Tribromophenol	114	43	146
Terphenyl-d14	107	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	05-1390 mb 1/0.5
Date Analyzed:	07/08/15	Data File:	070808.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	64	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	116	43	158
2,4,6-Tribromophenol	102	43	146
Terphenyl-d14	110	39	168

Compounds:	Concentration ug/L (ppb)
Benzoic acid	<5
1,2,4-Trichlorobenzene	<0.1
Dibenzofuran	<0.1
Bis(2-ethylhexyl) phthalate	<1.6

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID: ASP-2  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-05 1/0.5  
Data File: 070813.D  
Instrument: GCMS6  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	101	31	160
Benzo(a)anthracene-d12	84	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.033
Acenaphthylene	<0.025
Acenaphthene	0.33
Fluorene	<0.025
Phenanthrene	0.031
Anthracene	<0.025
Fluoranthene	0.035
Pyrene	0.035
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-08 1/0.5
Date Analyzed:	07/08/15	Data File:	070814.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	110	31	160
Benzo(a)anthracene-d12	87	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	<0.025
Phenanthrene	0.033
Anthracene	<0.025
Fluoranthene	0.030
Pyrene	0.030
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	507052-15 1/0.5
Date Analyzed:	07/08/15	Data File:	070815.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	99	31	160
Benzo(a)anthracene-d12	92	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	3.3
Fluorene	0.028
Phenanthrene	0.053
Anthracene	0.047
Fluoranthene	2.0
Pyrene	1.2
Benz(a)anthracene	0.14
Chrysene	0.084
Benzo(a)pyrene	0.089
Benzo(b)fluoranthene	0.18
Benzo(k)fluoranthene	0.051
Indeno(1,2,3-cd)pyrene	0.073
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	0.074
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID: ASP-4  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-16 1/0.5  
Data File: 070816.D  
Instrument: GCMS6  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	104	31	160
Benzo(a)anthracene-d12	90	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	<0.025
Phenanthrene	0.038
Anthracene	<0.025
Fluoranthene	0.028
Pyrene	<0.025
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID: ASP-5  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-17 1/0.5  
Data File: 070817.D  
Instrument: GCMS6  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	110	31	160
Benzo(a)anthracene-d12	118	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.47
Acenaphthylene	<0.025
Acenaphthene	0.11
Fluorene	0.041
Phenanthrene	0.050
Anthracene	<0.025
Fluoranthene	0.19
Pyrene	0.28
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	0.033
2-Methylnaphthalene	0.026

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID: ASP-6  
Date Received: 07/02/15  
Date Extracted: 07/07/15  
Date Analyzed: 07/08/15  
Matrix: Water  
Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
Project: Snopac 150054, F&BI 507052  
Lab ID: 507052-18 1/0.5  
Data File: 070818.D  
Instrument: GCMS6  
Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	118	31	160
Benzo(a)anthracene-d12	93	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	0.033
Phenanthrene	0.037
Anthracene	<0.025
Fluoranthene	<0.025
Pyrene	2.2
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	0.028
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

## Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/07/15	Lab ID:	05-1391 mb 1/0.5
Date Analyzed:	07/08/15	Data File:	070808.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	103	31	160
Benzo(a)anthracene-d12	81	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.025
Acenaphthylene	<0.025
Acenaphthene	<0.025
Fluorene	<0.025
Phenanthrene	<0.025
Anthracene	<0.025
Fluoranthene	<0.025
Pyrene	<0.025
Benz(a)anthracene	<0.025
Chrysene	<0.025
Benzo(a)pyrene	<0.025
Benzo(b)fluoranthene	<0.025
Benzo(k)fluoranthene	<0.025
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025
1-Methylnaphthalene	<0.025
2-Methylnaphthalene	<0.025

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-01 1/5
Date Analyzed:	07/06/15	Data File:	07.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	87	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.041

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ING-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-02 1/5
Date Analyzed:	07/06/15	Data File:	08.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-04 1/5
Date Analyzed:	07/06/15	Data File:	09.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.051

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-06 1/5
Date Analyzed:	07/08/15	Data File:	11.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	100	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.60
Aroclor 1260	<0.02

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-07 1/5
Date Analyzed:	07/06/15	Data File:	11.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	74	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-09 1/5
Date Analyzed:	07/08/15	Data File:	08.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.18
Aroclor 1260	0.093

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-10 1/5
Date Analyzed:	07/08/15	Data File:	09.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	81	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.04
Aroclor 1232	<0.04
Aroclor 1016	<0.04
Aroclor 1242	<0.04
Aroclor 1248	<0.04
Aroclor 1254	0.40
Aroclor 1260	<0.04

Note: The reporting limits were raised due to high moisture content in sample.

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-11 1/5
Date Analyzed:	07/08/15	Data File:	12.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.39
Aroclor 1260	<0.02

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-12 1/5
Date Analyzed:	07/08/15	Data File:	14.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	94	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.19
Aroclor 1260	0.10

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-13 1/5
Date Analyzed:	07/08/15	Data File:	10.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	mcp

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.039
Aroclor 1260	0.027

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	SSA-10	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	507052-14 1/5
Date Analyzed:	07/07/15	Data File:	18.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	100	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.071

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/06/15	Lab ID:	05-1384 mb 1/5
Date Analyzed:	07/06/15	Data File:	06.D\ECD1A.CH
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	104	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-05 1/0.25
Date Analyzed:	07/09/15	Data File:	07.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	50	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-08 1/0.25
Date Analyzed:	07/09/15	Data File:	08.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	49	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-15 1/0.25
Date Analyzed:	07/09/15	Data File:	09.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	32	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	0.054
Aroclor 1260	<0.01

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-16 1/0.25
Date Analyzed:	07/09/15	Data File:	10.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	43	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-17 1/0.25
Date Analyzed:	07/09/15	Data File:	11.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	54	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-18 1/0.25
Date Analyzed:	07/09/15	Data File:	12.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	42	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

## Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	05-1397 mb 1/0.25
Date Analyzed:	07/09/15	Data File:	06.D\ECD1A.CH
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	51	24	127

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.01
Aroclor 1232	<0.01
Aroclor 1016	<0.01
Aroclor 1242	<0.01
Aroclor 1248	<0.01
Aroclor 1254	<0.01
Aroclor 1260	<0.01

## **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.

507052

## **SAMPLE CHAIN OF CUSTODY**

ME 07-02-15

204 / ~~224~~<sup>C13</sup> / 124

507052

Send Report To Kirsi Longley  
Company Aspect Consulting  
Address 401 2nd Ave., Suite 201  
City, State, ZIP Seattle, WA 98104  
Phone # 206 812 4746 Fax #

SAMPLERS (signature) <i>[Signature]</i>	
PROJECT NAME/NO. <i>Snopae</i>	PO# <i>150054</i>
REMARKS  <i>[Handwritten notes]</i>	

Page #	<u>1</u>	of	<u>2</u>
TURNAROUND TIME			
<input checked="" type="checkbox"/>	Standard (2 Weeks)		
<input type="checkbox"/>	RUSH _____		
Rush charges authorized by _____			
SAMPLE DISPOSAL			
<input type="checkbox"/>	Dispose after 30 days		
<input type="checkbox"/>	Return samples		
<input checked="" type="checkbox"/>	Will call with instructions		

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED							Notes				
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270*	HFS	PAHs	PCBs	metals (As, Cu, Cr, Cu, plus Cd, Ni, Zn)	TOT	SP/LP + Total Arsenic + Copper	RCRA8 metals plus Cu, Ni, Zn
SSA - 1	01A-B	7/2/15	1035	soil	2					X		X	X	X	X		
ING - 1	02A-E		1030		1				X			X	X				
PILE - 1	03A-B		1040		1	*			X								
SSA - 2	04A-B		1045		1				X			X	X	X			
ASP - 2	05A-D		1135	water	4				X			X	X	X			
SSA - 3	06A-C		1100	soil	3				X			X	X	X			
SSA - 4	07A-B		1105	1	2				X			X	X	X			
ASP - 1	08A-D		1115	water	4				X			X	X	X			
SSA - 5	09A-B		1120	soil	2				X			X	X	X			
SSA - 6	10A-B		1130	T	2				X			X	X	X			
Samples received at 6																	

*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: 	Karsi Langley Doro	Aspect F&B	7/2/15 11	13:50 13:50
Received by: 				
Relinquished by:				
Received by:				

\* Select SVOC list: bis(2-ethylhexyl)phthalate; 1,2,4-trichlorobenzene; benzoic acid; dibenzofuran

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

DOY 1324/AT4

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO.	PO#
<u>Snopac</u>	<u>150054</u>
REMARKS <u>Pb, Hg, Zn</u>	

Page # 2 of 2

TURNAROUND TIME

Standard (2 Weeks)  
 RUSH  
 Rush charges authorized by \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days  
 Return samples  
 Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes		
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270*	HFS	PAHs	PCBs	metals, CTC, C
SSA-7	11AB7/2/15	1145		Soil	2			X		X	X	X	X	
SSA-8	12AC	1200			3			X		X	X	X	X	X
SSA-9	13AP	1210			2			X		X	X	X		
SSA-10	14T	1220			2			X		X	X	X		
ASP-3	15AD	1200		water	1			X		X	X	X		
ASP-4	16T	1210			4			X		X	X	X		
ASP-5	17	1240			4			X		X	X	X		
ASP-6	18	1250			4			X		X	X	X		

Samples received at 6 PM

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
<u>Kirsi Longley</u> Relinquished by:	<u>Kirsi Longley</u>	<u>Aspect</u>	<u>7/2/15</u>	<u>13:50</u>
Received by: <u>Demo</u>	<u>DO DO</u>	<u>FBI</u>	"	<u>13:50</u>
Relinquished by: <u>Demo</u>				
Received by:				

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

**Send Report To** Michael Erdahl

Company \_\_\_\_\_ Friedman and Bruya, Inc.

**Address** 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER	
<u>ARI</u>	
PROJECT NAME/NO.	PO #
<u>507052</u>	<u>D-572</u>
REMARKS	
Please Email Results	

Page # \_\_\_\_\_ of \_\_\_\_\_

#### **TURNAROUND TIME**

Standard (2 Weeks)

RUSH

Rush charges authorized by:

**SAMPLE DISPOSAL**

Dispose after 30 days

Return samples

Will call with instructions

*Friedman & Bruya, Inc.  
3012 16th Avenue West*

*Seattle, WA 98119-2029*

Ph. (206) 285-8282

*Fax (206) 283-5044*

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Michael Erdahl	Friedman & Bruya		
Received by:				
Relinquished by:				
Received by:				

**DRAFT**

**Analysis for SPLP Metals By EPA Method 200.8 and 1312**

Client ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	SnoPac 150054, F&BI 507052
Date Extracted:	07/20/15	Lab ID:	507052-06
Date Analyzed:	07/21/15 12:47:05	Data File:	507052-06.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	80	60	125
Indium	92	60	125
Holmium	91	60	125

Analyte:	Concentration mg/L (ppm)
----------	-----------------------------

Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<1
Lead	<1
Zinc	<1

## Analysis for SPLP Metals By EPA Method 200.8 and 1312

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	SnoPac 150054, F&BI 507052
Date Extracted:	07/20/15	Lab ID:	I5-405 mb
Date Analyzed:	07/21/15 12:35:54	Data File:	I5-405 mb.046
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	85	60	125
Indium	92	60	125
Holmium	94	60	125

Analyte:	Concentration mg/L (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<1
Lead	<1
Zinc	<1

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

C13  
D04/824/K24

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave., Suite 201  
 City, State, ZIP Seattle, WA 98101  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	PROJECT NAME/NO. <u>Snopac</u>	PO# <u>150054</u>
REMARKS <u>(HS, Hg, Zn)</u>		

Page # 1 of 2

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard (2 Weeks)	<input type="checkbox"/> RUSH _____
Rush charges authorized by _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Dispose after 30 days	<input type="checkbox"/> Return samples
<input checked="" type="checkbox"/> Will call with instructions	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-TOC Gasoline	BTEX by 8021B	VOCs by 8270	SVOCs by 8270	PCP Aro-Hex HCH/HCB	DATs	PCBs	METALS As, Cd, Cr, Cu, Hg, Pb, Zn	TOX As, PLP + Total Arsenic + Copper RCRA8 METALS Hg, Cd, Ni, Zn	
SSA - 1	01A-B	7/2/15	1035	soil	2	X			X	X	X	X	X	X	X	*-perKL
ING - 1	02A-E		1030		5			X				X				7/9/15 mg
PILE - 1	03A-B		1040		2	*		X								*-perKL
SSA - 2	04A-B		1045		2	*		X			X	X	X	X		7/13/15 mg
ASP - 2	05A-D		1135	water	4			X			X	X	X	X		*-perKL
SSA - 3	06A-C		1100	soil	3	X			X	X	X	X	X	X		7/14/15 mg
SSA - 4	07A-B		1105		1	*		X			X	X	X	X		
ASP - 1	08A-D		1115	water	4			X			X	X	X	X		
SSA - 5	09A-B		1120	soil	2	*		X			X	X	X	X		Samples received at 6 pm
SSA - 6	10A-B		1130	T	2	X		X			X	X	X	X		

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: <u>Kirsi Longley</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Dave</u>	Dave	Aspect	11	13:58
Relinquished by: <u></u>				
Received by: <u></u>				

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

204/CT3/1A4

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature)	<u>J. Hylton</u>	
PROJECT NAME/NO.	PO#	
<u>Snopac</u>	<u>150054</u>	
REMARKS		<u>PS, Hg, Zn</u>

Page # 2 of 2

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED								Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270*	HFS	PAHs	PCBs	metPAHs	Cx, Cy, Cr, Cu
SSA - 7	1AB7	7/2/15	1145	Soil	2	X				X	X	X	X	X	TBT
SSA - 8	12K4		1200		3	X				X	X	X	X	X	
SSA - 9	13A9		1210		2	X				X	X	X	X		
SSA - 10	14 T		1220		2	X				X	X	X	X		
ASP - 3	15A7		1200	water	1					X	X	X	X		
ASP - 4	16 T		1210		4					X	X	X	X		
ASP - 5	17		1240		4					X	X	X	X		
ASP - 6	18		1250		4					X	X	X	X		

Samples received at 6:00

Friedman & Bruya, Inc.  
 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>Kirsi Longley</u>	Kirsi Longley	Aspect	7/2/15	1350
Received by: <u>Demo</u>	DO 10	FBI	"	13:50
Relinquished by: <u>Demo</u>				
Received by:				

\*SVOC list = Bis(2-ethylhexyl)phthalate ; 1,2,4-trichlorobenzene ; benzoic acid ; dibenzofuran

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-01
Date Analyzed:	07/13/15	Data File:	507052-01.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	88	60	125
Indium	81	60	125
Holmium	87	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.1
Cadmium	<1
Chromium	7.04
Copper	49.1
Lead	66.6
Zinc	76.4

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ING-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-02
Date Analyzed:	07/13/15	Data File:	507052-02.051
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	133 vo	60	125
Indium	90	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.81
Barium	15.8
Cadmium	<1
Chromium	86.9 J
Copper	32.1 J
Lead	3.52
Nickel	35.7 J
Selenium	<1
Silver	<1
Zinc	92.8 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ING-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-02 x10
Date Analyzed:	07/13/15	Data File:	507052-02 x10.066
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125
Indium	90	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<10
Barium	26.7
Cadmium	<10
Chromium	150
Copper	<50
Lead	<10
Nickel	57.2
Selenium	<10
Silver	<10
Zinc	145

## Analysis For Total Metals By EPA Method 200.8

Client ID:	PILE-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-03
Date Analyzed:	07/13/15	Data File:	507052-03.052
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	87	60	125
Indium	84	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.63
Copper	<5

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-04
Date Analyzed:	07/13/15	Data File:	507052-04.053
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	86	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	27.3
Cadmium	<1
Chromium	20.1
Copper	65.9
Lead	54.7
Zinc	150

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-06
Date Analyzed:	07/13/15	Data File:	507052-06.047
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	157 vo	60	125
Indium	329 vo	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	861 J
Cadmium	1.15 J
Chromium	43.6 J
Copper	1,160 J
Lead	1,720
Zinc	3,900 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-06 x50
Date Analyzed:	07/13/15	Data File:	507052-06 x50.081
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	92	60	125
Indium	98	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4,890
Cadmium	<50
Chromium	126
Copper	3,430
Lead	3,050
Zinc	12,900

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-07
Date Analyzed:	07/13/15	Data File:	507052-07.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	92	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	70.1
Cadmium	<1
Chromium	9.56
Copper	55.3
Lead	61.7
Zinc	196

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-09
Date Analyzed:	07/13/15	Data File:	507052-09.056
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	130 vo	60	125
Indium	240 vo	60	125
Holmium	86	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	912 J
Cadmium	1.11 J
Chromium	46.4 J
Copper	921 J
Lead	1,570
Zinc	3,770 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-09 x10
Date Analyzed:	07/13/15	Data File:	507052-09 x10.067
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	114	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	2,760
Cadmium	<10
Chromium	93.0
Copper	1,740
Lead	2,210
Zinc	7,960

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-10
Date Analyzed:	07/13/15	Data File:	507052-10.057
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	77	60	125
Indium	76	60	125
Holmium	75	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	340
Cadmium	1.44
Chromium	20.4
Copper	164
Lead	237
Zinc	1,110

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-7	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-11
Date Analyzed:	07/13/15	Data File:	507052-11.058
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	95	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	315
Cadmium	<1
Chromium	24.9
Copper	165
Lead	305
Zinc	738

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-12
Date Analyzed:	07/13/15	Data File:	507052-12.059
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	146 vo	60	125
Indium	235 vo	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	1,260 J
Cadmium	1.65 J
Chromium	53.1 J
Copper	767 J
Lead	1,770
Zinc	4,570 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-8	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-12 x10
Date Analyzed:	07/13/15	Data File:	507052-12 x10.068
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125
Indium	121	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	4,250
Cadmium	<10
Chromium	155
Copper	1,900
Lead	3,030
Zinc	12,100

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-9	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-13
Date Analyzed:	07/13/15	Data File:	507052-13.060
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125
Indium	85	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	49.4
Cadmium	<1
Chromium	6.93
Copper	53.1
Lead	35.5
Zinc	162

## Analysis For Total Metals By EPA Method 200.8

Client ID:	SSA-10	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-14
Date Analyzed:	07/13/15	Data File:	507052-14.061
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	91	60	125
Indium	85	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	15.9
Cadmium	<1
Chromium	6.61
Copper	21.1
Lead	34.7
Zinc	168

## Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	I5-386 mb
Date Analyzed:	07/13/15	Data File:	I5-386 mb.045
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	92	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-05
Date Analyzed:	07/10/15	Data File:	507052-05.009
Matrix:	Water	Instrument:	ICP MS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	30 vo	60	125
Indium	31 vo	60	125
Holmium	38 vo	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	28.3 J
Cadmium	<1 J
Chromium	2.21 J
Copper	263 J
Lead	<1 J
Zinc	14.3 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-2	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-05 x10
Date Analyzed:	07/10/15	Data File:	507052-05 x10.012
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	89	60	125
Indium	93	60	125
Holmium	101	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	40.1
Cadmium	<10
Chromium	<10
Copper	97.5
Lead	<10
Zinc	16.2

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-08
Date Analyzed:	07/10/15	Data File:	507052-08.032
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	34 vo	60	125
Indium	33 vo	60	125
Holmium	40 vo	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	33.0 J
Cadmium	<1 J
Chromium	2.58 J
Copper	677 J
Lead	<1 J
Zinc	19.3 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-1	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-08 x10
Date Analyzed:	07/10/15	Data File:	507052-08 x10.039
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	87	60	125
Indium	85	60	125
Holmium	92	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	44.7
Cadmium	<10
Chromium	<10
Copper	86.5
Lead	<10
Zinc	21.4

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-3	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-15
Date Analyzed:	07/10/15	Data File:	507052-15.033
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	79	60	125
Indium	71	60	125
Holmium	81	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	42.4
Cadmium	<1
Chromium	2.81
Copper	35.2
Lead	5.80
Zinc	35.9

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-16
Date Analyzed:	07/10/15	Data File:	507052-16.015
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	38 vo	60	125
Indium	40 vo	60	125
Holmium	45 vo	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	55.1 J
Cadmium	<1 J
Chromium	3.36 J
Copper	530 J
Lead	8.47 J
Zinc	267 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-4	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-16 x10
Date Analyzed:	07/10/15	Data File:	507052-16 x10.040
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	89	60	125
Indium	86	60	125
Holmium	94	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	75.5
Cadmium	<10
Chromium	<10
Copper	226
Lead	<10
Zinc	393

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-17
Date Analyzed:	07/10/15	Data File:	507052-17.034
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	65 vo	60	125
Indium	55 vo	60	125
Holmium	63 vo	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	32.6 J
Cadmium	<1 J
Chromium	1.47 J
Copper	103 J
Lead	<1 J
Zinc	8.46 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-5	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-17 x10
Date Analyzed:	07/10/15	Data File:	507052-17 x10.041
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	87	60	125
Holmium	96	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	42.2
Cadmium	<10
Chromium	<10
Copper	48.1
Lead	<10
Zinc	<50

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-18
Date Analyzed:	07/10/15	Data File:	507052-18.035
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	54 vo	60	125
Indium	56 vo	60	125
Holmium	65	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	49.9 J
Cadmium	<1 J
Chromium	2.59 J
Copper	48.0 J
Lead	<1
Zinc	<5 J

## Analysis For Total Metals By EPA Method 200.8

Client ID:	ASP-6	Client:	Aspect Consulting, LLC
Date Received:	07/02/15	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	507052-18 x10
Date Analyzed:	07/10/15	Data File:	507052-18 x10.042
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	90	60	125
Holmium	98	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	63.5
Cadmium	<10
Chromium	<10
Copper	31.0
Lead	<10
Zinc	<50

## Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 507052
Date Extracted:	07/08/15	Lab ID:	I5-387 mb
Date Analyzed:	07/10/15	Data File:	I5-387 mb.020
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	110	60	125
Indium	106	60	125
Holmium	106	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Zinc	<5

Date of Report: 07/13/15  
Date Received: 07/02/15  
Project: Snopac 150054, F&BI 507052  
Date Extracted: 07/08/15  
Date Analyzed: 07/10/15

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL MERCURY  
USING EPA METHOD 1631E**  
Results Reported on a Dry Weight Basis  
Results Reported as mg/kg (ppm)

<u>Sample ID</u>	<u>Total Mercury</u>
Laboratory ID	
SSA-1 507052-01	0.052
ING-1 507052-02	<0.025
SSA-2 507052-04	0.082
SSA-3 507052-06 1/5	0.28
SSA-4 507052-07	0.25
SSA-5 507052-09 1/25	0.98
SSA-6 507052-10	<0.050
SSA-7 507052-11 1/5	0.66
SSA-8 507052-12	0.067
SSA-9 507052-13	0.038
SSA-10 507052-14	<0.025
Method Blank	<0.025

Date of Report: 07/13/15  
Date Received: 07/02/15

Project: Snopac 150054, F&BI 507052

Date Extracted: 07/09/15

Date Analyzed: 07/10/15

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL MERCURY  
USING EPA METHOD 1631E**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Total Mercury</u>
ASP-2 507052-05	<0.1
ASP-1 507052-08	<0.1
ASP-3 507052-15	<0.1
ASP-4 507052-16 1/10	0.28
ASP-5 507052-17	<0.1
ASP-6 507052-18	<0.1
Method Blank	<0.1

## **Data Qualifiers & Definitions**

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

507052

## **SAMPLE CHAIN OF CUSTODY**

ME 07-02-15

204 / ~~224~~<sup>C13</sup> / 124

507052

Send Report To Kirsi Longley  
Company Aspect Consulting  
Address 401 2nd Ave., Suite 201  
City, State, ZIP Seattle, WA 98104  
Phone # 206 812 4746 Fax #

SAMPLERS (signature) <i>[Signature]</i>	
PROJECT NAME/NO. <i>Snopae</i>	PO# <i>150054</i>
REMARKS <i>[Handwritten notes]</i>	

Page #	<u>1</u>	of	<u>2</u>
TURNAROUND TIME			
<input checked="" type="checkbox"/>	Standard (2 Weeks)		
<input type="checkbox"/>	RUSH _____		
Rush charges authorized by _____			
SAMPLE DISPOSAL			
<input type="checkbox"/>	Dispose after 30 days		
<input type="checkbox"/>	Return samples		
<input checked="" type="checkbox"/>	Will call with instructions		

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED							Notes				
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270*	HFS	PAHs	PCBs	metals (As, Cu, Cr, Cu, plus Cd, Ni, Zn)	TOT	SP/LP + Total Arsenic + Copper	RCRA8 metals plus Cu, Ni, Zn
SSA - 1	01A-B	7/2/15	1035	soil	2					X		X	X	X	X		
ING - 1	02A-E		1030		1				X			X	X				
PILE - 1	03A-B		1040		1	*			X								
SSA - 2	04A-B		1045		1				X			X	X	X			
ASP - 2	05A-D		1135	water	4				X			X	X	X			
SSA - 3	06A-C		1100	soil	3				X			X	X	X			
SSA - 4	07A-B		1105	1	2				X			X	X	X			
ASP - 1	08A-D		1115	water	4				X			X	X	X			
SSA - 5	09A-B		1120	soil	2				X			X	X	X			
SSA - 6	10A-B		1130	T	2				X			X	X	X			
															Samples received at	6	0

*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: 	Karsi Langley Doro	Aspect F&B	7/2/15 11	13:50 13:50
Received by: 				
Relinquished by:				
Received by:				

\* Select SVOC list: bis(2-ethylhexyl)phthalate; 1,2,4-trichlorobenzene; benzoic acid; dibenzofuran

507052

## SAMPLE CHAIN OF CUSTODY

ME 07-02-15

DOY 1324/AT4

Send Report To Kirsi Longley  
 Company Aspect Consulting  
 Address 401 2nd Ave S, Suite 201  
 City, State, ZIP Seattle, WA 98104  
 Phone # 206 812 4746 Fax #

SAMPLERS (signature) <u>Kirsi Longley</u>	
PROJECT NAME/NO.	PO#
<u>Snopac</u>	<u>150054</u>
REMARKS <u>Pb, Hg, Zn</u>	

Page # 2 of 2

TURNAROUND TIME

Standard (2 Weeks)  
 RUSH  
 Rush charges authorized by \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days  
 Return samples  
 Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes		
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270*	HFS	PAHs	PCBs	metals, CTC, C
SSA - 7	11AB7/2/15	1145		Soil	2					X	X	X	X	
SSA - 8	12AC	1200			3					X	X	X	X	X
SSA - 9	13AP	1210			2					X	X	X	X	
SSA - 10	14 T	1220			2					X	X	X	X	
ASP - 3	15AD	1200		water	1					X	X	X	X	
ASP - 4	16 T	1210			4					X	X	X	X	
ASP - 5	17	1240			4					X	X	X	X	
ASP - 6	18	1250			4					X	X	X	X	

Samples received at 6 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
<u>Kirsi Longley</u> Relinquished by: <u>Demo</u>	<u>Kirsi Longley</u> Received by: <u>Demo</u>	<u>Aspect</u> FBI	<u>7/2/15</u> "	<u>13:50</u> 13:50
Received by: <u>Demo</u>	Received by: <u>Demo</u>			
Received by: <u>Demo</u>	Received by: <u>Demo</u>			

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

**Send Report To** Michael Erdahl

Company \_\_\_\_\_ Friedman and Bruya, Inc.

**Address** 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER	
<u>ARI</u>	
PROJECT NAME/NO.	PO #
<u>507052</u>	<u>D-572</u>
REMARKS	
Please Email Results	

Page # \_\_\_\_\_ of \_\_\_\_\_

#### **TURNAROUND TIME**

Standard (2 Weeks)

RUSH

Rush charges authorized by:

---

**SAMPLE DISPOSAL**

Dispose after 30 days

Return samples

Will call with instructions

*Friedman & Bruya, Inc.  
3012 16th Avenue West*

*Seattle, WA 98119-2029*

Ph. (206) 285-8282

*Fax (206) 283-5044*

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Michael Erdahl	Friedman & Bruya		
Received by:				
Relinquished by:				
Received by:				

## **APPENDIX F**

### **Laboratory Analytical Data, Upland Soils**



---

ALS Environmental  
ALS Group USA, Corp  
1317 South 13th Avenue  
Kelso, WA 98626  
+1 360 577 7222  
+1 360 636 1068

February 23, 2017

r r r

K1700893

Mike Erdahl  
Friedman & Bruya, Inc.  
3012 16th Ave. W.  
Seattle, WA 98119

Dear Mike,

Enclosed are the results of the sample(s) submitted to our laboratory January 31, 2017  
For your reference, these analyses have been assigned our service request number

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

r r d r

  
Howard Holmes  
Project Manager



---

ALS Environmental  
ALS Group USA, Corp  
1317 South 13th Avenue  
Kelso, WA 98626  
+1 360 577 7222  
+1 360 636 1068

## Table of Contents

- Acronyms
- Qualifiers
- State Certifications, Accreditations, And Licenses
- Case Narrative
- Chain of Custody
- Total Solids
- Butyltins (as cation)

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

## Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

## Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**  
**State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L14-51
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	Not available	-
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	03016
Maine DHS	Not available	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.alsglobal.com](http://www.alsglobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



## Case Narrative

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## ALS ENVIRONMENTAL

**Client:** Friedman & Bruya, Incorporated      **Service Request No.:** K1700893  
**Project:** 701295      **Date Received:** 1/31/17  
**Sample Matrix:** Sediment

### **Case Narrative**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Matrix/Duplicate Matrix Spike (MS/DMS), Laboratory Control Sample (LCS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

#### **Sample Receipt**

Three sediment samples were received for analysis at ALS Environmental on 1/31/17. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

#### **Butyltins**

##### **Matrix Spike Recovery Exceptions:**

Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

##### **Elevated Detection Limits:**

All field samples required dilution due to the presence of elevated levels of target analyte. The reporting limits are adjusted to reflect the dilution.

Approved by





## Chain of Custody

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## **SUBCONTRACT SAMPLE CHAIN OF CUSTODY**

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address      3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER		ALS-Kelso
PROJECT NAME/NO.		PO #
701295		E-475
REMARKS	Tier II EQUIS	
Please Email Results		

Page # \_\_\_\_\_ of \_\_\_\_\_

## **TURNAROUND TIME**

Standard (2 Weeks)

BUSH

Rush charges authorized by:

**SAMPLE DISPOSAL**

Dispose after 30 days

Return samples

Will call with instructions

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044	SIGNATURE 	PRINT NAME Michael Erdahl	COMPANY Friedman and Bruya	DATE 1/30/17	TIME 09:45
	Received by: 	K. Smith	ALS	1/31/17	1000
	Relinquished by:				
	Received by:				

PC H2

## Cooler Receipt and Preservation Form

Client Friedman & BruyaService Request K17 00893Received: 1/31/17 Opened: 1/31/17 By: XO Unloaded: 1/31/17 By: XO1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered2. Samples were received in: (circle) Cooler Box Envelope Other         NA3. Were custody seals on coolers? NA Y N If yes, how many and where? \_\_\_\_\_If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected, Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
1.5	1.5			0	378	NA	SG99 9261 4010		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves \_\_\_\_\_5. Were custody papers properly filled out (ink, signed, etc.)? NA Y   N6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA Y   N  
If applicable, tissue samples were received: Frozen Partially Thawed Thawed7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y   N8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y   N9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y   N10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y   N11. Were VOA vials received without headspace? Indicate in the table below. NA Y   N12. Was C12/Res negative? NA Y   N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Total Solids

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment  
**Analysis Method:** 160.3 Modified  
**Prep Method:** None

**Service Request:** K1700893  
**Date Collected:** 01/24/17  
**Date Received:** 01/31/17  
**Units:** Percent  
**Basis:** As Received

**Solids, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
B4-SBG-0	K1700893-001	<b>92.6</b>	-	1	01/31/17 17:00	
B5-10-10.2	K1700893-002	<b>91.5</b>	-	1	01/31/17 17:00	
B6-0.8-1.1	K1700893-003	<b>96.0</b>	-	1	01/31/17 17:00	

**ALS Group USA, Corp.**

dba ALS Environmental

## QA/QC Report

**Client:** Friedman & Bruya, Incorporated  
**Project** 701295  
**Sample Matrix:** Sludge, Solid

**Service Request:** K1700893  
**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 01/31/17

**Replicate Sample Summary****Inorganic Parameters**

**Sample Name:** Batch QC **Units:** Percent  
**Lab Code:** K1700749-002 **Basis:** NA

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Sample K1700749-002DUP Result</b>	<b>Average</b>	<b>RPD</b>	<b>RPD Limit</b>
Solids, Total	160.3 Modified	-	27.0	27.1	27.1	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



## Butyltins (as cation)

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1700893  
**Date Collected:** 01/24/2017  
**Date Received:** 01/31/2017

**Butyltins (as cation)**

**Sample Name:** B4-SBG-0  
**Lab Code:** K1700893-001  
**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	3900 D	54	50	02/06/17	02/16/17	KWG1700947	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	96	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

---

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1700893  
**Date Collected:** 01/24/2017  
**Date Received:** 01/31/2017

**Butyltins (as cation)**

**Sample Name:** B5-10-10.2  
**Lab Code:** K1700893-002  
**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	3700 D	54	50	02/06/17	02/16/17	KWG1700947	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	96	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

---

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1700893  
**Date Collected:** 01/24/2017  
**Date Received:** 01/31/2017

**Butyltins (as cation)**

**Sample Name:** B6-0.8-1.1  
**Lab Code:** K1700893-003  
**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	2200 D	52	50	02/06/17	02/16/17	KWG1700947	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	114	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

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## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1700893  
**Date Collected:** NA  
**Date Received:** NA

**Butyltins (as cation)**

**Sample Name:** Method Blank      **Units:** ug/Kg  
**Lab Code:** KWG1700947-3      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	0.99	1	02/06/17	02/16/17	KWG1700947	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	71	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

---

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1700893

## Surrogate Recovery Summary Butyltins (as cation)

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
B4-SBG-0	K1700893-001	96 D
B5-10-10.2	K1700893-002	96 D
B6-0.8-1.1	K1700893-003	114 D
Method Blank	KWG1700947-3	71
Lab Control Sample	KWG1700947-1	74
Duplicate Lab Control Sample	KWG1700947-2	63

### **Surrogate Recovery Control Limits (%)**

Sur1 = Tri-n-propyltin 10-120

Results flagged with an asterisk (\*) indicate values outside control criteria.

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1700893  
**Date Extracted:** 02/06/2017  
**Date Analyzed:** 02/16/2017

**Lab Control Spike/Duplicate Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG1700947

<b>Analyte Name</b>	Lab Control Sample			Duplicate Lab Control Sample			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
	KWG1700947-1			KWG1700947-2								
	<b>Lab Control Spike</b>			<b>Duplicate Lab Control Spike</b>								
	<b>Result</b>	<b>Spike Amount</b>	<b>%Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>%Rec</b>						
Tri-n-butyltin Cation	16.4	22.2	74	14.3	22.2	64	10-122	14	40			

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



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+1 360 636 1068

February 23, 2017

r r r

K1701225

Mike Erdahl  
Friedman & Bruya, Inc.  
3012 16th Ave. W.  
Seattle, WA 98119

Dear Mike,

Enclosed are the results of the sample(s) submitted to our laboratory February 08, 2017  
For your reference, these analyses have been assigned our service request number

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

r r d r

A handwritten signature in black ink, appearing to read "Howard Holmes". Above the signature, there are three small lowercase letters: "r", "r", and "d" on the first line, and "r" on the second line.

Howard Holmes  
Project Manager



---

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ALS Group USA, Corp  
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Kelso, WA 98626  
+1 360 577 7222  
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## Table of Contents

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

## Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

## Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**  
**State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L14-51
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	Not available	-
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	03016
Maine DHS	Not available	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.alsglobal.com](http://www.alsglobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



## Case Narrative

**ALS Environmental—Kelso Laboratory**  
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Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## ALS ENVIRONMENTAL

<b>Client:</b>	Friedman & Bruya, Incorporated	<b>Service Request No.:</b>	K1701225
<b>Project:</b>	701295	<b>Date Received:</b>	2/8/17
<b>Sample Matrix:</b>	Sediment		

### **Case Narrative**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Matrix/Duplicate Matrix Spike (MS/DMS), Laboratory Control Sample (LCS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

### **Sample Receipt**

One sediment sample was received for analysis at ALS Environmental on 2/8/17. The sample was received in good condition and consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

### **Butyltins**

#### **Holding Time Exceptions:**

This sample was received past the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time violation.

Approved by \_\_\_\_\_





## Chain of Custody

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

H1701226

Send Report To Michael Erdahl  
Company Friedman and Bruya, Inc.  
Address 3012 16th Ave W  
City, State, ZIP Seattle, WA 98119  
Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER		ALS-Kelso
PROJECT NAME/NO.		PO #
701295		E-485
REMARKS	Tier II	
Please Email Results	Eouis	

<b>TURNAROUND TIME</b>	
<input checked="" type="checkbox"/> Standard (2 Weeks)	
<input type="checkbox"/> RUSH	
Rush charges authorized by:	
<hr/>	
<b>SAMPLE DISPOSAL</b>	
<input type="checkbox"/> Dispose after 30 days	
<input type="checkbox"/> Return samples	
<input type="checkbox"/> Will call with instructions	

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044	SIGNATURE Relinquished by: 	PRINT NAME Michael Erdahl	COMPANY Friedman and Bruya	DATE 2/2/17	TIME 11:00 AM
	Received by: 	K. Smith	ACS	2/8/17	1120
	Relinquished by:				
	Received by:				



PC H2

## Cooler Receipt and Preservation Form

Client Friedman + Brungs Service Request K17 01225  
 Received: 2/8/17 Opened: 2/8/17 By: J Unloaded: 2/8/17 By: J

1. Samples were received via? **USPS** **FedEx** **UPS** **DHL** **PDX** **Courier** **Hand Delivered**
2. Samples were received in: (circle) **Cooler** **Box** **Envelope** **Other** NA
3. Were custody seals on coolers? NA Y N If yes, how many and where?

If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filled
-0.3	-0.4	-	-	-0.1	303	NA	8099 9261 9021		

4. Packing material: **Inserts** **Baggies** **Bubble Wrap** **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves**
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N  
If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below.* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: \_\_\_\_\_

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## Total Solids

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment  
**Analysis Method:** 160.3 Modified  
**Prep Method:** None

**Service Request:** K1701225  
**Date Collected:** 01/24/17  
**Date Received:** 02/8/17  
**Units:** Percent  
**Basis:** As Received

**Solids, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
B9-0-1.5	K1701225-001	<b>98.5</b>	-	1	02/09/17 16:34	

**ALS Group USA, Corp.**

dba ALS Environmental

## QA/QC Report

**Client:** Friedman & Bruya, Incorporated  
**Project** 701295  
**Sample Matrix:** Paperboard

**Service Request:** K1701225  
**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 02/09/17

**Replicate Sample Summary****Inorganic Parameters**

<b>Sample Name:</b>	Batch QC				<b>Units:</b> Percent
<b>Lab Code:</b>	K1701185-008				<b>Basis:</b> As Received
<b>Analyte Name</b>	<b>Analysis Method</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Sample K1701185-008DUP Result</b>	
Solids, Total	160.3 Modified	-	95.2	95.1	Average 95.2 RPD <1 RPD Limit 20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



## Butyltins (as cation)

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Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1701225  
**Date Collected:** 01/24/2017  
**Date Received:** 02/08/2017

**Butyltins (as cation)**

**Sample Name:** B9-0-1.5      **Units:** ug/Kg  
**Lab Code:** K1701225-001      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	590 D	51	50	02/08/17	02/16/17	KWG1701049	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	93	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

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## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1701225  
**Date Collected:** NA  
**Date Received:** NA

**Butyltins (as cation)**

**Sample Name:** Method Blank      **Units:** ug/Kg  
**Lab Code:** KWG1701049-5      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	0.98	1	02/08/17	02/16/17	KWG1701049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	70	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

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**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1701225

## Surrogate Recovery Summary Butyltins (as cation)

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
Batch QC	K1701224-002	70
B9-0-1.5	K1701225-001	93 D
Method Blank	KWG1701049-5	70
Batch QCMS	KWG1701049-1	67
Batch QCDMS	KWG1701049-2	81
Lab Control Sample	KWG1701049-3	65
Duplicate Lab Control Sample	KWG1701049-4	72

### **Surrogate Recovery Control Limits (%)**

Sur1 = Tri-n-propyltin 10-120

Results flagged with an asterisk (\*) indicate values outside control criteria.

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1701225  
**Date Extracted:** 02/08/2017  
**Date Analyzed:** 02/17/2017

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Butyltins (as cation)**

<b>Sample Name:</b>	Batch QC	<b>Units:</b>	ug/Kg
<b>Lab Code:</b>	K1701224-002	<b>Basis:</b>	Dry
<b>Extraction Method:</b>	METHOD	<b>Level:</b>	Low
<b>Analysis Method:</b>	Krone	<b>Extraction Lot:</b>	KWG1701049

Analyte Name	Sample Result	Batch QCMS			Batch QCDMS			%Rec Limits	RPD	RPD Limit			
		KGW1701049-1			KGW1701049-2								
		Matrix Spike			Duplicate Matrix Spike								
Tri-n-butyltin Cation	ND	15.5	26.3	59	19.6	26.6	74	10-115	23	40			

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701295  
**Sample Matrix:** Sediment

**Service Request:** K1701225  
**Date Extracted:** 02/08/2017  
**Date Analyzed:** 02/16/2017

**Lab Control Spike/Duplicate Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

**Extraction Lot:** KWG1701049

Lab Control Sample KWG1701049-3	Duplicate Lab Control Sample KWG1701049-4
<b>Lab Control Spike</b>	
<b>Duplicate Lab Control Spike</b>	

<b>Analyte Name</b>	<b>Result</b>	<b>Spike</b>	<b>%Rec</b>	<b>Result</b>	<b>Spike</b>	<b>%Rec</b>	<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		<b>Amount</b>			<b>Amount</b>				
Tri-n-butyltin Cation	14.8	22.2	67	16.5	22.2	74	10-122	11	40

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



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February 22, 2017

r r r

K1701224

Mike Erdahl  
Friedman & Bruya, Inc.  
3012 16th Ave. W.  
Seattle, WA 98119

Dear Mike,

Enclosed are the results of the sample(s) submitted to our laboratory February 08, 2017  
For your reference, these analyses have been assigned our service request number

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

r r d r

  
Howard Holmes  
Project Manager



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ALS Environmental  
ALS Group USA, Corp  
1317 South 13th Avenue  
Kelso, WA 98626  
+1 360 577 7222  
+1 360 636 1068

## Table of Contents

Acronyms

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

## Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

## Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**  
**State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L14-51
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	Not available	-
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	03016
Maine DHS	Not available	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.alsglobal.com](http://www.alsglobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



## Chain of Custody

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER ALS-Kelso		Page # _____ of _____
PROJECT NAME/NO. 701300	PO # E-485	TURNAROUND TIME <input checked="" type="checkbox"/> Standard (2 Weeks) <input type="checkbox"/> RUSH _____ Rush charges authorized by: _____
REMARKS Tier II Please Email Results Eunis		SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions

*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:~~

Michael Erdahl

Friedman and Bruylants

$\approx 1.2 \times 10^3$

Received by

17. *Leucosia*

Relinquished by:

HSmith

AUS

28 17 1120

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Received by

PC H2

## Cooler Receipt and Preservation Form

Client Friedman + Brungs Service Request K17 01224  
 Received: 2/8/17 Opened: 2/8/17 By: J Unloaded: 2/8/17 By: J

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where?
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
-0.3	-0.4	--	--	-0.1	323	NA	8099 9261 9021		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N  
 If applicable, tissue samples were received: Frozen Partially Thawed Thawed
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below.* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: \_\_\_\_\_

**SHORT HOLD TIME**



## Total Solids

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment  
**Analysis Method:** 160.3 Modified  
**Prep Method:** None

**Service Request:** K1701224  
**Date Collected:** 01/25/17  
**Date Received:** 02/8/17  
**Units:** Percent  
**Basis:** As Received

**Solids, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
B13-5.5-6.5	K1701224-001	<b>84.1</b>	-	1	02/09/17 16:34	
B12-6-7	K1701224-002	<b>83.1</b>	-	1	02/09/17 16:34	

**ALS Group USA, Corp.**

dba ALS Environmental

## QA/QC Report

**Client:** Friedman & Bruya, Incorporated  
**Project** 701300  
**Sample Matrix:** Paperboard

**Service Request:** K1701224  
**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 02/09/17

**Replicate Sample Summary****Inorganic Parameters**

<b>Sample Name:</b>	Batch QC				<b>Units:</b> Percent
<b>Lab Code:</b>	K1701185-008				<b>Basis:</b> As Received
<b>Analyte Name</b>	<b>Analysis Method</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Sample K1701185-008DUP Result</b>	
Solids, Total	160.3 Modified	-	95.2	95.1	Average 95.2 RPD <1 RPD Limit 20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



## Butyltins (as cation)

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment

**Service Request:** K1701224  
**Date Collected:** 01/25/2017  
**Date Received:** 02/08/2017

**Butyltins (as cation)**

**Sample Name:** B13-5.5-6.5  
**Lab Code:** K1701224-001  
**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	1.2	1	02/08/17	02/17/17	KWG1701049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	81	10-120	02/17/17	Acceptable

**Comments:** \_\_\_\_\_

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## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment

**Service Request:** K1701224  
**Date Collected:** 01/25/2017  
**Date Received:** 02/08/2017

**Butyltins (as cation)**

**Sample Name:** B12-6-7                    **Units:** ug/Kg  
**Lab Code:** K1701224-002                **Basis:** Dry  
**Extraction Method:** METHOD              **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	1.2	1	02/08/17	02/17/17	KWG1701049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	70	10-120	02/17/17	Acceptable

**Comments:** \_\_\_\_\_

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## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment

**Service Request:** K1701224  
**Date Collected:** NA  
**Date Received:** NA

**Butyltins (as cation)**

**Sample Name:** Method Blank      **Units:** ug/Kg  
**Lab Code:** KWG1701049-5      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	0.98	1	02/08/17	02/16/17	KWG1701049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	70	10-120	02/16/17	Acceptable

Comments: \_\_\_\_\_

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment

**Service Request:** K1701224

## Surrogate Recovery Summary Butyltins (as cation)

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
B13-5.5-6.5	K1701224-001	81
B12-6-7	K1701224-002	70
Method Blank	KWG1701049-5	70
B12-6-7MS	KWG1701049-1	67
B12-6-7DMS	KWG1701049-2	81
Lab Control Sample	KWG1701049-3	65
Duplicate Lab Control Sample	KWG1701049-4	72

### **Surrogate Recovery Control Limits (%)**

Sur1 = Tri-n-propyltin 10-120

Results flagged with an asterisk (\*) indicate values outside control criteria.

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment

**Service Request:** K1701224  
**Date Extracted:** 02/08/2017  
**Date Analyzed:** 02/17/2017

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Butyltins (as cation)**

<b>Sample Name:</b>	B12-6-7	<b>Units:</b>	ug/Kg
<b>Lab Code:</b>	K1701224-002	<b>Basis:</b>	Dry
<b>Extraction Method:</b>	METHOD	<b>Level:</b>	Low
<b>Analysis Method:</b>	Krone	<b>Extraction Lot:</b>	KWG1701049

Analyte Name	Sample Result	B12-6-7MS			B12-6-7DMS			Duplicate Matrix Spike		
		KGW1701049-1			KGW1701049-2					
		Matrix Spike								
Analyte Name	Sample Result	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec	%Rec Limits	RPD	RPD Limit
Tri-n-butyltin Cation	ND	15.5	26.3	59	19.6	26.6	74	10-115	23	40

Results flagged with an asterisk (\*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701300  
**Sample Matrix:** Sediment

**Service Request:** K1701224  
**Date Extracted:** 02/08/2017  
**Date Analyzed:** 02/16/2017

**Lab Control Spike/Duplicate Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG1701049

<b>Analyte Name</b>	Lab Control Sample			Duplicate Lab Control Sample			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
	KWG1701049-3			KWG1701049-4								
	<b>Lab Control Spike</b>			<b>Duplicate Lab Control Spike</b>								
	<b>Result</b>	<b>Spike Amount</b>	<b>%Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>%Rec</b>						
Tri-n-butyltin Cation	14.8	22.2	67	16.5	22.2	74	10-122	11	40			

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ALS Environmental  
ALS Group USA, Corp  
1317 South 13th Avenue  
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February 23, 2017

r r r

K1700895

Mike Erdahl  
Friedman & Bruya, Inc.  
3012 16th Ave. W.  
Seattle, WA 98119

Dear Mike,

Enclosed are the results of the sample(s) submitted to our laboratory January 31, 2017  
For your reference, these analyses have been assigned our service request number

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

r r d r

  
Howard Holmes  
Project Manager



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## Acronyms

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A2LA	American Association for Laboratory Accreditation
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CFC	Chlorofluorocarbon
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DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
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NA	Not Applicable
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PQL	Practical Quantitation Limit
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- \* The result is an outlier. See case narrative.
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## Metals Data Qualifiers

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- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**  
**State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L14-51
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	Not available	-
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	03016
Maine DHS	Not available	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/lbservice.htm">http://ndep.nv.gov/bsdw/lbservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.alsglobal.com](http://www.alsglobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



## Case Narrative

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## ALS ENVIRONMENTAL

**Client:** Friedman & Bruya, Incorporated      **Service Request No.:** K1700895  
**Project:** 701333      **Date Received:** 1/31/17  
**Sample Matrix:** Sediment

### **Case Narrative**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Matrix/Duplicate Matrix Spike (MS/DMS), Laboratory Control Sample (LCS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

#### **Sample Receipt**

One sediment sample was received for analysis at ALS Environmental on 1/31/17. The sample was received in good condition and consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

#### **Butyltins**

##### **Matrix Spike Recovery Exceptions:**

Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

##### **Surrogate Exceptions:**

The control criteria for the following **surrogate** in this sample are not applicable: **Tri-n-propyltin**. The analysis of the sample required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

##### **Elevated Detection Limits:**

This sample required dilution due to the presence of elevated levels of target analyte. The reporting limits are adjusted to reflect the dilution.

No other anomalies associated with the analysis of these samples were observed.

Approved by \_\_\_\_\_





## Chain of Custody

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER		<u>ALS-Kelso</u>
PROJECT NAME/NO.		PO #
<u>701333</u>		<u>E-475</u>
REMARKS		
<u>Tier II</u> <u>E Q U I S</u>		
Please Email Results		

31206895

Page # 1 of 1

## TURNAROUND TIME

Standard (2 Weeks)  
 RUSH

**Rush charges authorized by:**

## SAMPLE DISPOSAL

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

*Friedman & Bruya, Inc.*  
*3012 16th Avenue West*

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Michael Erdahl	Friedman and Bruya	1/30/17	09:45
Received by: 	K. Smith	ALS	1/30/17	1000
Relinquished by:				
Received by:				



PC H2

## Cooler Receipt and Preservation Form

Client: Friedman &amp; Bruya

Service Request K17

00895

Received: 1/31/17

Opened: 1/31/17

By: XJ

Unloaded: 1/31/17

By: XJ

1. Samples were received via?  USPS  FedEx  UPS  DHL  PDX  Courier  Hand Delivered2. Samples were received in: (circle)  Cooler  Box  Envelope  Other \_\_\_\_\_ NA3. Were custody seals on coolers? NA Y  N If yes, how many and where?

If present, were custody seals intact?

Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filled
1.5	1.5	—	—	θ	378	NA	SG99921619010		

4. Packing material:  Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Dry Ice  Sleeves5. Were custody papers properly filled out (ink, signed, etc.)? NA  Y N6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA  Y NIf applicable, tissue samples were received:  Frozen  Partially Thawed  Thawed7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA  Y N8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA  Y N9. Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y N10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA  Y N11. Were VOA vials received without headspace? Indicate in the table below. NA  Y N12. Was C12/Res negative? NA  Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:



## Total Solids

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment  
**Analysis Method:** 160.3 Modified  
**Prep Method:** None

**Service Request:** K1700895  
**Date Collected:** 01/26/17  
**Date Received:** 01/31/17  
**Units:** Percent  
**Basis:** As Received

**Solids, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW6-SBG-5.2-5.4	K1700895-001	<b>94.1</b>	-	1	01/31/17 17:00	

**ALS Group USA, Corp.**

dba ALS Environmental

## QA/QC Report

**Client:** Friedman & Bruya, Incorporated  
**Project** 701333  
**Sample Matrix:** Sludge, Solid

**Service Request:** K1700895  
**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 01/31/17

**Replicate Sample Summary****Inorganic Parameters**

**Sample Name:** Batch QC **Units:** Percent  
**Lab Code:** K1700749-002 **Basis:** NA

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Sample K1700749-002DUP Result</b>	<b>Average</b>	<b>RPD</b>	<b>RPD Limit</b>
Solids, Total	160.3 Modified	-	27.0	27.1	27.1	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



## Butyltins (as cation)

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1700895  
**Date Collected:** 01/26/2017  
**Date Received:** 01/31/2017

**Butyltins (as cation)**

**Sample Name:** MW6-SBG-5.2-5.4      **Units:** ug/Kg  
**Lab Code:** K1700895-001      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	5600 D	270	250	02/06/17	02/16/17	KWG1700947	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	0	10-120	02/16/17	Outside Control Limits

**Comments:** \_\_\_\_\_

---

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1700895  
**Date Collected:** NA  
**Date Received:** NA

**Butyltins (as cation)**

**Sample Name:** Method Blank      **Units:** ug/Kg  
**Lab Code:** KWG1700947-3      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	0.99	1	02/06/17	02/16/17	KWG1700947	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	71	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

---

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1700895

## **Surrogate Recovery Summary Butyltins (as cation)**

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
MW6-SBG-5.2-5.4	K1700895-001	0 D *
Method Blank	KWG1700947-3	71
Lab Control Sample	KWG1700947-1	74
Duplicate Lab Control Sample	KWG1700947-2	63

### **Surrogate Recovery Control Limits (%)**

Sur1 = Tri-n-propyltin 10-120

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1700895  
**Date Extracted:** 02/06/2017  
**Date Analyzed:** 02/16/2017

**Lab Control Spike/Duplicate Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

**Extraction Lot:** KWG1700947

Lab Control Sample KWG1700947-1	Duplicate Lab Control Sample KWG1700947-2
<b>Lab Control Spike</b>	
<b>Duplicate Lab Control Spike</b>	

<b>Analyte Name</b>	<b>Result</b>	<b>Spike</b>	<b>%Rec</b>	<b>Result</b>	<b>Spike</b>	<b>%Rec</b>	<b>%Rec</b>	<b>RPD</b>	<b>RPD</b>
		<b>Amount</b>			<b>Amount</b>		<b>Limits</b>		
Tri-n-butyltin Cation	16.4	22.2	74	14.3	22.2	64	10-122	14	40

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



---

ALS Environmental  
ALS Group USA, Corp  
1317 South 13th Avenue  
Kelso, WA 98626  
+1 360 577 7222  
+1 360 636 1068

February 22, 2017

r r r

K1701223

Mike Erdahl  
Friedman & Bruya, Inc.  
3012 16th Ave. W.  
Seattle, WA 98119

Dear Mike,

Enclosed are the results of the sample(s) submitted to our laboratory February 08, 2017  
For your reference, these analyses have been assigned our service request number

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

r r d r

  
Howard Holmes  
Project Manager



---

ALS Environmental  
ALS Group USA, Corp  
1317 South 13th Avenue  
Kelso, WA 98626  
+1 360 577 7222  
+1 360 636 1068

## Table of Contents

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

## Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

## Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

## Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**  
**State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L14-51
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	Not available	-
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	03016
Maine DHS	Not available	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.alsglobal.com](http://www.alsglobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



## Chain of Custody

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER		Page # _____ of _____
ALS-Kelso		TURNAROUND TIME
PROJECT NAME/NO.	PO #	<input checked="" type="checkbox"/> Standard (2 Weeks)
701333	E-485	<input type="checkbox"/> RUSH _____
REMARKS		Rush charges authorized by:
Tier II		
Please Email Results		SAMPLE DISPOSAL
		<input type="checkbox"/> Dispose after 30 days
		<input type="checkbox"/> Return samples
		<input type="checkbox"/> Will call with instructions

*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:

FRIED

Friedman and Bruya

11

16 - 18

Received by

— 1 —

Received by

PC H2

## Cooler Receipt and Preservation Form

Client: Friedman + Brays Service Request K17 01223  
 Received: 2/8/17 Opened: 2/8/17 By: J Unloaded: 2/8/17 By: R

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered  
 2. Samples were received in: (circle) Cooler Box Envelope Other NA  
 3. Were custody seals on coolers? NA Y N If yes, how many and where?

If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
-0.3	-0.4	-	-	-0.1	303	NA	8099 9261 9021		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves NA Y N  
 5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N  
 6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N  
     If applicable, tissue samples were received: Frozen Partially Thawed Thawed  
 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N  
 8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N  
 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N  
 10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below.* NA Y N  
 11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N  
 12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: \_\_\_\_\_

**SHORT HOLD TIME**



## Total Solids

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment  
**Analysis Method:** 160.3 Modified  
**Prep Method:** None

**Service Request:** K1701223  
**Date Collected:** 01/26/17  
**Date Received:** 02/8/17  
**Units:** Percent  
**Basis:** As Received

**Solids, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW11-10-11	K1701223-001	75.2	-	1	02/09/17 16:34	

**ALS Group USA, Corp.**

dba ALS Environmental

## QA/QC Report

**Client:** Friedman & Bruya, Incorporated  
**Project** 701333  
**Sample Matrix:** Paperboard

**Service Request:** K1701223  
**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 02/09/17

**Replicate Sample Summary****Inorganic Parameters**

<b>Sample Name:</b>	Batch QC				<b>Units:</b> Percent
<b>Lab Code:</b>	K1701185-008				<b>Basis:</b> As Received
<b>Analyte Name</b>	<b>Analysis Method</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Sample K1701185-008DUP Result</b>	
Solids, Total	160.3 Modified	-	95.2	95.1	Average 95.2 RPD <1 RPD Limit 20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



## Butyltins (as cation)

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360)577-7222 Fax (360)636-1068  
[www.alsglobal.com](http://www.alsglobal.com)

## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1701223  
**Date Collected:** 01/26/2017  
**Date Received:** 02/08/2017

**Butyltins (as cation)**

**Sample Name:** MW11-10-11  
**Lab Code:** K1701223-001  
**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry

**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	32	1.3	1	02/08/17	02/17/17	KWG1701049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	91	10-120	02/17/17	Acceptable

**Comments:** \_\_\_\_\_

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## Analytical Results

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1701223  
**Date Collected:** NA  
**Date Received:** NA

**Butyltins (as cation)**

**Sample Name:** Method Blank      **Units:** ug/Kg  
**Lab Code:** KWG1701049-5      **Basis:** Dry  
**Extraction Method:** METHOD      **Level:** Low  
**Analysis Method:** Krone

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND U	0.98	1	02/08/17	02/16/17	KWG1701049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	70	10-120	02/16/17	Acceptable

**Comments:** \_\_\_\_\_

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**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1701223

## Surrogate Recovery Summary Butyltins (as cation)

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
MW11-10-11	K1701223-001	91
Batch QC	K1701224-002	70
Method Blank	KWG1701049-5	70
Batch QCMS	KWG1701049-1	67
Batch QCDMS	KWG1701049-2	81
Lab Control Sample	KWG1701049-3	65
Duplicate Lab Control Sample	KWG1701049-4	72

### **Surrogate Recovery Control Limits (%)**

Sur1 = Tri-n-propyltin 10-120

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1701223  
**Date Extracted:** 02/08/2017  
**Date Analyzed:** 02/17/2017

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Butyltins (as cation)**

<b>Sample Name:</b>	Batch QC	<b>Units:</b>	ug/Kg
<b>Lab Code:</b>	K1701224-002	<b>Basis:</b>	Dry
<b>Extraction Method:</b>	METHOD	<b>Level:</b>	Low
<b>Analysis Method:</b>	Krone	<b>Extraction Lot:</b>	KWG1701049

Analyte Name	Sample Result	Batch QCMS			Batch QCDMS			%Rec Limits	RPD	RPD Limit			
		KGW1701049-1			KGW1701049-2								
		Matrix Spike			Duplicate Matrix Spike								
Tri-n-butyltin Cation	ND	15.5	26.3	59	19.6	26.6	74	10-115	23	40			

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** Friedman & Bruya, Incorporated  
**Project:** 701333  
**Sample Matrix:** Sediment

**Service Request:** K1701223  
**Date Extracted:** 02/08/2017  
**Date Analyzed:** 02/16/2017

**Lab Control Spike/Duplicate Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** METHOD  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG1701049

<b>Analyte Name</b>	Lab Control Sample			Duplicate Lab Control Sample			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
	KWG1701049-3			KWG1701049-4								
	<b>Lab Control Spike</b>			<b>Duplicate Lab Control Spike</b>								
	<b>Result</b>	<b>Spike Amount</b>	<b>%Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>%Rec</b>						
Tri-n-butyltin Cation	14.8	22.2	67	16.5	22.2	74	10-122	11	40			

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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.

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February 15, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 26, 2017 from the Snopac 150054, F&BI 701300 project. There are 53 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0215R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 26, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 701300 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
701300 -01	MW10-5-6
701300 -02	MW10-15.5-16.5
701300 -03	MW10-11-12
701300 -04	MW10-24-25
701300 -05	MW8-5-6
701300 -06	MW8-10.7-11.8
701300 -07	MW8-15.5-16.5
701300 -08	MW8-20-21
701300 -09	MW5-6.3-7
701300 -10	MW5-10-10.5
701300 -11	MW5-15.8-17
701300 -12	MW5-18-19
701300 -13	B13-5.5-6.5
701300 -14	B13-10-11
701300 -15	B13-17.5-18.5
701300 -16	B13-0.5-1.5
701300 -17	MW9-12-13
701300 -18	MW9-5-6
701300 -19	MW9-15-16
701300 -20	MW9-18-19
701300 -21	B12-5-6
701300 -22	B12-6-7
701300 -23	B12-15-16
701300 -24	B12-10-11

Samples MW10-5-6, MW10-15.5-16.5, MW8-5-6, MW8-15.5-16.5, MW5-10-10.5, MW5-15.8-17, MW9-5-6, and MW9-15-16 were sent to Fremont Analytical for total organic carbon analysis. The report is enclosed.

Samples B13-5.5-6.5 and B12-6-7 were sent to ALS (Kelso) for tributyltin analysis. The report will be forwarded to your office upon receipt.

A 6020A internal standard failed the acceptance criteria for sample B13-5.5-6.5 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

The 8270D surrogates in sample MW10-5-6 exceeded the acceptance criteria. No compounds were detected in the sample, therefore the data were acceptable.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE (continued)

Several 8270D compounds exceeded the acceptance criteria in the laboratory control sample and laboratory control sample duplicate. The compounds were not detected in the samples, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

Date Extracted: 01/30/17

Date Analyzed: 01/30/17

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 53-144)
MW10-5-6 701300-01	<50	<250	96
MW10-15.5-16.5 701300-02	<50	<250	93
MW8-5-6 701300-05	<50	<250	88
MW8-15.5-16.5 701300-07	<50	<250	107
MW5-10-10.5 701300-10	<50	<250	105
MW5-15.8-17 701300-11	<50	<250	89
MW9-5-6 701300-18	<50	<250	93
MW9-15-16 701300-19	<50	<250	106
B12-5-6 701300-21	310 x	320	111
Method Blank 07-176 MB	<50	<250	88

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW10-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-01
Date Analyzed:	01/27/17	Data File:	701300-01.042
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.9
Barium	50.2
Cadmium	1.69
Chromium	10.0
Copper	28.0
Lead	49.4
Mercury	<1
Nickel	8.35
Selenium	<1
Silver	<1
Zinc	393

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW10-15.5-16.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-02
Date Analyzed:	01/27/17	Data File:	701300-02.043
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.29
Barium	11.7
Cadmium	<1
Chromium	10.1
Copper	14.6
Lead	2.40
Mercury	<1
Nickel	6.10
Selenium	<1
Silver	<1
Zinc	20.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW8-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-05
Date Analyzed:	01/27/17	Data File:	701300-05.044
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.54
Barium	11.4
Cadmium	<1
Chromium	5.66
Copper	5.97
Lead	<1
Mercury	<1
Nickel	3.10
Selenium	<1
Silver	<1
Zinc	11.4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW8-15.5-16.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-07
Date Analyzed:	01/27/17	Data File:	701300-07.049
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.01
Barium	24.7
Cadmium	<1
Chromium	12.2
Copper	25.2
Lead	3.95
Mercury	<1
Nickel	9.86
Selenium	<1
Silver	<1
Zinc	26.3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW5-10-10.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-10
Date Analyzed:	01/27/17	Data File:	701300-10.050
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.59
Barium	16.9
Cadmium	<1
Chromium	8.83
Copper	10.1
Lead	1.68
Mercury	<1
Nickel	8.74
Selenium	<1
Silver	<1
Zinc	18.4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW5-15.8-17	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-11
Date Analyzed:	01/27/17	Data File:	701300-11.051
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.54
Barium	8.73
Cadmium	<1
Chromium	10.3
Copper	11.1
Lead	1.29
Mercury	<1
Nickel	6.04
Selenium	<1
Silver	<1
Zinc	19.5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B13-5.5-6.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-13
Date Analyzed:	01/27/17	Data File:	701300-13.052
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.38
Barium	19.0
Cadmium	<1
Chromium	11.3 J
Copper	102 J
Lead	3.37
Mercury	<1
Nickel	15.0 J
Selenium	<1
Silver	<1
Zinc	55.1 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B13-5.5-6.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-13 x2
Date Analyzed:	01/27/17	Data File:	701300-13 x2.067
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Chromium	12.2
Copper	112
Nickel	16.4
Zinc	61.5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW9-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-18
Date Analyzed:	01/27/17	Data File:	701300-18.053
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.40
Barium	22.6
Cadmium	<1
Chromium	7.98
Copper	12.9
Lead	14.4
Mercury	<1
Nickel	5.89
Selenium	<1
Silver	<1
Zinc	39.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW9-15-16	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-19
Date Analyzed:	01/27/17	Data File:	701300-19.054
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.95
Barium	15.8
Cadmium	<1
Chromium	14.5
Copper	18.6
Lead	2.71
Mercury	<1
Nickel	8.57
Selenium	<1
Silver	<1
Zinc	26.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B12-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-21
Date Analyzed:	01/27/17	Data File:	701300-21.055
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	21.8
Barium	67.5
Cadmium	<1
Chromium	17.5
Copper	35.3
Lead	30.2
Mercury	<1
Nickel	16.1
Selenium	<1
Silver	<1
Zinc	153

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B12-6-7	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-22
Date Analyzed:	01/27/17	Data File:	701300-22.056
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.4
Barium	76.2
Cadmium	<1
Chromium	8.57
Copper	334
Lead	367 ve
Mercury	<1
Nickel	12.1
Selenium	<1
Silver	<1
Zinc	183

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020A

Client ID:	B12-6-7	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	701300-22 x10
Date Analyzed:	01/27/17	Data File:	701300-22 x10.068
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	400
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/27/17	Lab ID:	I7-045 mb2
Date Analyzed:	01/27/17	Data File:	I7-045 mb2.041
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW10-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/26/17	Lab ID:	701300-01
Date Analyzed:	01/26/17	Data File:	012628.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	92	64	137
4-Bromofluorobenzene	97	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW8-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/26/17	Lab ID:	701300-05
Date Analyzed:	01/26/17	Data File:	012629.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	89	113
Toluene-d8	93	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW9-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/26/17	Lab ID:	701300-18
Date Analyzed:	01/26/17	Data File:	012630.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	94	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/26/17	Lab ID:	07-0145 mb
Date Analyzed:	01/26/17	Data File:	012605.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	96	64	137
4-Bromofluorobenzene	102	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW10-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	701300-01 1/5
Date Analyzed:	01/31/17	Data File:	013118.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	101	31	163
Benzo(a)anthracene-d12	105	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.056
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	0.014
Phenanthrene	0.13
Anthracene	0.015
Fluoranthene	0.13
Pyrene	0.12
Benz(a)anthracene	0.042
Chrysene	0.069
Benzo(a)pyrene	0.053
Benzo(b)fluoranthene	0.087
Benzo(k)fluoranthene	0.032
Indeno(1,2,3-cd)pyrene	0.039
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.039

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW8-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	701300-05 1/5
Date Analyzed:	01/31/17	Data File:	013108.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	106	31	163
Benzo(a)anthracene-d12	91	24	168

Compounds:	Concentration mg/kg (ppm)
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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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B13-5.5-6.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	02/07/17	Lab ID:	701300-13 1/5
Date Analyzed:	02/07/17	Data File:	020706.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	77	31	163
Benzo(a)anthracene-d12	97	24	168

Compounds:	Concentration mg/kg (ppm)
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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B13-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	701300-14 1/5
Date Analyzed:	01/31/17	Data File:	013110.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	99	31	163
Benzo(a)anthracene-d12	92	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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B13-17.5-18.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	701300-15 1/5
Date Analyzed:	01/31/17	Data File:	013111.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	104	31	163
Benzo(a)anthracene-d12	101	24	168

Compounds:	Concentration mg/kg (ppm)
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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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW9-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	701300-18 1/5
Date Analyzed:	01/31/17	Data File:	013112.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	106	31	163
Benzo(a)anthracene-d12	107	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.040
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.033
Anthracene	<0.01
Fluoranthene	0.026
Pyrene	0.024
Benz(a)anthracene	0.013
Chrysene	0.020
Benzo(a)pyrene	0.013
Benzo(b)fluoranthene	0.025
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.016
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.021

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B12-6-7	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	02/07/17	Lab ID:	701300-22 1/50
Date Analyzed:	02/07/17	Data File:	020709.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	116 d	31	163
Benzo(a)anthracene-d12	98 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.84
Chrysene	0.73
Benzo(a)pyrene	0.59
Benzo(b)fluoranthene	0.73
Benzo(k)fluoranthene	0.22
Indeno(1,2,3-cd)pyrene	0.31
Dibenz(a,h)anthracene	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701300
Date Extracted:	02/07/17	Lab ID:	07-247 mb2 1/5
Date Analyzed:	02/07/17	Data File:	020705.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	77	31	163
Benzo(a)anthracene-d12	91	24	168

Compounds:	Concentration mg/kg (ppm)
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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	07-224 mb 1/5
Date Analyzed:	01/31/17	Data File:	013106.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96	31	163
Benzo(a)anthracene-d12	98	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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW10-5-6  
 Date Received: 01/26/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 701300  
 Lab ID: 701300-01 1/5  
 Data File: 013116.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	133 vo	56	115
Phenol-d6	126 vo	54	113
Nitrobenzene-d5	131	31	164
2-Fluorobiphenyl	129	47	133
2,4,6-Tribromophenol	149 vo	35	141
Terphenyl-d14	156	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.5	Hexachlorocyclopentadiene	<0.15
Bis(2-chloroethyl) ether	<0.05	2,4,6-Trichlorophenol	<0.5
2-Chlorophenol	<0.5	2,4,5-Trichlorophenol	<0.5
1,3-Dichlorobenzene	<0.05	2-Chloronaphthalene	<0.05
1,4-Dichlorobenzene	<0.05	2-Nitroaniline	<0.25
1,2-Dichlorobenzene	<0.05	Dimethyl phthalate	<0.5
Benzyl alcohol	<0.5	2,6-Dinitrotoluene	<0.25
2,2'-Oxybis(1-chloropropane)	<0.05	3-Nitroaniline	<5
2-Methylphenol	<0.5	2,4-Dinitrophenol	<1.5
Hexachloroethane	<0.05	Dibenzofuran	<0.05
N-Nitroso-di-n-propylamine	<0.05	2,4-Dinitrotoluene	<0.25
3-Methylphenol + 4-Methylphenol	<1	4-Nitrophenol	<1.5
Nitrobenzene	<0.05	Diethyl phthalate	<0.5
Isophorone	<0.05	4-Chlorophenyl phenyl ether	<0.05
2-Nitrophenol	<0.5	N-Nitrosodiphenylamine	<0.05
2,4-Dimethylphenol	<0.5	4-Nitroaniline	<5
Benzoic acid	<2.5	4,6-Dinitro-2-methylphenol	<1.5
Bis(2-chloroethoxy)methane	<0.05	4-Bromophenyl phenyl ether	<0.05
2,4-Dichlorophenol	<0.5	Hexachlorobenzene	<0.05
1,2,4-Trichlorobenzene	<0.05	Pentachlorophenol	<0.5
Hexachlorobutadiene	<0.05	Carbazole	<0.5
4-Chloroaniline	<5	Di-n-butyl phthalate	<0.5
4-Chloro-3-methylphenol	<0.5	Benzyl butyl phthalate	<0.5
2-Methylnaphthalene	0.076	Bis(2-ethylhexyl) phthalate	<0.8
1-Methylnaphthalene	0.070	Di-n-octyl phthalate	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW8-5-6  
 Date Received: 01/26/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 701300  
 Lab ID: 701300-05 1/5  
 Data File: 013107.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	103	56	115
Phenol-d6	101	54	113
Nitrobenzene-d5	107	31	164
2-Fluorobiphenyl	102	47	133
2,4,6-Tribromophenol	92	35	141
Terphenyl-d14	107	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.5	Hexachlorocyclopentadiene	<0.15
Bis(2-chloroethyl) ether	<0.05	2,4,6-Trichlorophenol	<0.5
2-Chlorophenol	<0.5	2,4,5-Trichlorophenol	<0.5
1,3-Dichlorobenzene	<0.05	2-Chloronaphthalene	<0.05
1,4-Dichlorobenzene	<0.05	2-Nitroaniline	<0.25
1,2-Dichlorobenzene	<0.05	Dimethyl phthalate	<0.5
Benzyl alcohol	<0.5	2,6-Dinitrotoluene	<0.25
2,2'-Oxybis(1-chloropropane)	<0.05	3-Nitroaniline	<5
2-Methylphenol	<0.5	2,4-Dinitrophenol	<1.5
Hexachloroethane	<0.05	Dibenzofuran	<0.05
N-Nitroso-di-n-propylamine	<0.05	2,4-Dinitrotoluene	<0.25
3-Methylphenol + 4-Methylphenol	<1	4-Nitrophenol	<1.5
Nitrobenzene	<0.05	Diethyl phthalate	<0.5
Isophorone	<0.05	4-Chlorophenyl phenyl ether	<0.05
2-Nitrophenol	<0.5	N-Nitrosodiphenylamine	<0.05
2,4-Dimethylphenol	<0.5	4-Nitroaniline	<5
Benzoic acid	<2.5	4,6-Dinitro-2-methylphenol	<1.5
Bis(2-chloroethoxy)methane	<0.05	4-Bromophenyl phenyl ether	<0.05
2,4-Dichlorophenol	<0.5	Hexachlorobenzene	<0.05
1,2,4-Trichlorobenzene	<0.05	Pentachlorophenol	<0.5
Hexachlorobutadiene	<0.05	Carbazole	<0.5
4-Chloroaniline	<5	Di-n-butyl phthalate	<0.5
4-Chloro-3-methylphenol	<0.5	Benzyl butyl phthalate	<0.5
2-Methylnaphthalene	<0.05	Bis(2-ethylhexyl) phthalate	<0.8
1-Methylnaphthalene	<0.05	Di-n-octyl phthalate	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: B13-10-11  
 Date Received: 01/26/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 701300  
 Lab ID: 701300-14 1/5  
 Data File: 013108.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	115	56	115
Phenol-d6	111	54	113
Nitrobenzene-d5	117	31	164
2-Fluorobiphenyl	111	47	133
2,4,6-Tribromophenol	115	35	141
Terphenyl-d14	112	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.5	Hexachlorocyclopentadiene	<0.15
Bis(2-chloroethyl) ether	<0.05	2,4,6-Trichlorophenol	<0.5
2-Chlorophenol	<0.5	2,4,5-Trichlorophenol	<0.5
1,3-Dichlorobenzene	<0.05	2-Chloronaphthalene	<0.05
1,4-Dichlorobenzene	<0.05	2-Nitroaniline	<0.25
1,2-Dichlorobenzene	<0.05	Dimethyl phthalate	<0.5
Benzyl alcohol	<0.5	2,6-Dinitrotoluene	<0.25
2,2'-Oxybis(1-chloropropane)	<0.05	3-Nitroaniline	<5
2-Methylphenol	<0.5	2,4-Dinitrophenol	<1.5
Hexachloroethane	<0.05	Dibenzofuran	<0.05
N-Nitroso-di-n-propylamine	<0.05	2,4-Dinitrotoluene	<0.25
3-Methylphenol + 4-Methylphenol	<1	4-Nitrophenol	<1.5
Nitrobenzene	<0.05	Diethyl phthalate	<0.5
Isophorone	<0.05	4-Chlorophenyl phenyl ether	<0.05
2-Nitrophenol	<0.5	N-Nitrosodiphenylamine	<0.05
2,4-Dimethylphenol	<0.5	4-Nitroaniline	<5
Benzoic acid	<2.5	4,6-Dinitro-2-methylphenol	<1.5
Bis(2-chloroethoxy)methane	<0.05	4-Bromophenyl phenyl ether	<0.05
2,4-Dichlorophenol	<0.5	Hexachlorobenzene	<0.05
1,2,4-Trichlorobenzene	<0.05	Pentachlorophenol	<0.5
Hexachlorobutadiene	<0.05	Carbazole	<0.5
4-Chloroaniline	<5	Di-n-butyl phthalate	<0.5
4-Chloro-3-methylphenol	<0.5	Benzyl butyl phthalate	<0.5
2-Methylnaphthalene	<0.05	Bis(2-ethylhexyl) phthalate	<0.8
1-Methylnaphthalene	<0.05	Di-n-octyl phthalate	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	B13-17.5-18.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	701300-15 1/5
Date Analyzed:	01/31/17	Data File:	013109.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	113	56	115
Phenol-d6	110	54	113
Nitrobenzene-d5	113	31	164
2-Fluorobiphenyl	108	47	133
2,4,6-Tribromophenol	112	35	141
Terphenyl-d14	111	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.5	Hexachlorocyclopentadiene	<0.15
Bis(2-chloroethyl) ether	<0.05	2,4,6-Trichlorophenol	<0.5
2-Chlorophenol	<0.5	2,4,5-Trichlorophenol	<0.5
1,3-Dichlorobenzene	<0.05	2-Chloronaphthalene	<0.05
1,4-Dichlorobenzene	<0.05	2-Nitroaniline	<0.25
1,2-Dichlorobenzene	<0.05	Dimethyl phthalate	<0.5
Benzyl alcohol	<0.5	2,6-Dinitrotoluene	<0.25
2,2'-Oxybis(1-chloropropane)	<0.05	3-Nitroaniline	<5
2-Methylphenol	<0.5	2,4-Dinitrophenol	<1.5
Hexachloroethane	<0.05	Dibenzofuran	<0.05
N-Nitroso-di-n-propylamine	<0.05	2,4-Dinitrotoluene	<0.25
3-Methylphenol + 4-Methylphenol	<1	4-Nitrophenol	<1.5
Nitrobenzene	<0.05	Diethyl phthalate	<0.5
Isophorone	<0.05	4-Chlorophenyl phenyl ether	<0.05
2-Nitrophenol	<0.5	N-Nitrosodiphenylamine	<0.05
2,4-Dimethylphenol	<0.5	4-Nitroaniline	<5
Benzoic acid	<2.5	4,6-Dinitro-2-methylphenol	<1.5
Bis(2-chloroethoxy)methane	<0.05	4-Bromophenyl phenyl ether	<0.05
2,4-Dichlorophenol	<0.5	Hexachlorobenzene	<0.05
1,2,4-Trichlorobenzene	<0.05	Pentachlorophenol	<0.5
Hexachlorobutadiene	<0.05	Carbazole	<0.5
4-Chloroaniline	<5	Di-n-butyl phthalate	<0.5
4-Chloro-3-methylphenol	<0.5	Benzyl butyl phthalate	<0.5
2-Methylnaphthalene	<0.05	Bis(2-ethylhexyl) phthalate	<0.8
1-Methylnaphthalene	<0.05	Di-n-octyl phthalate	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW9-5-6  
 Date Received: 01/26/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 701300  
 Lab ID: 701300-18 1/5  
 Data File: 013111.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	117 vo	56	115
Phenol-d6	114 vo	54	113
Nitrobenzene-d5	119	31	164
2-Fluorobiphenyl	113	47	133
2,4,6-Tribromophenol	118	35	141
Terphenyl-d14	118	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.5	Hexachlorocyclopentadiene	<0.15
Bis(2-chloroethyl) ether	<0.05	2,4,6-Trichlorophenol	<0.5
2-Chlorophenol	<0.5	2,4,5-Trichlorophenol	<0.5
1,3-Dichlorobenzene	<0.05	2-Chloronaphthalene	<0.05
1,4-Dichlorobenzene	<0.05	2-Nitroaniline	<0.25
1,2-Dichlorobenzene	<0.05	Dimethyl phthalate	<0.5
Benzyl alcohol	<0.5	2,6-Dinitrotoluene	<0.25
2,2'-Oxybis(1-chloropropane)	<0.05	3-Nitroaniline	<5
2-Methylphenol	<0.5	2,4-Dinitrophenol	<1.5
Hexachloroethane	<0.05	Dibenzofuran	<0.05
N-Nitroso-di-n-propylamine	<0.05	2,4-Dinitrotoluene	<0.25
3-Methylphenol + 4-Methylphenol	<1	4-Nitrophenol	<1.5
Nitrobenzene	<0.05	Diethyl phthalate	<0.5
Isophorone	<0.05	4-Chlorophenyl phenyl ether	<0.05
2-Nitrophenol	<0.5	N-Nitrosodiphenylamine	<0.05
2,4-Dimethylphenol	<0.5	4-Nitroaniline	<5
Benzoic acid	<2.5	4,6-Dinitro-2-methylphenol	<1.5
Bis(2-chloroethoxy)methane	<0.05	4-Bromophenyl phenyl ether	<0.05
2,4-Dichlorophenol	<0.5	Hexachlorobenzene	<0.05
1,2,4-Trichlorobenzene	<0.05	Pentachlorophenol	<0.5
Hexachlorobutadiene	<0.05	Carbazole	<0.5
4-Chloroaniline	<5	Di-n-butyl phthalate	<0.5
4-Chloro-3-methylphenol	<0.5	Benzyl butyl phthalate	<0.5
2-Methylnaphthalene	0.056	Bis(2-ethylhexyl) phthalate	<0.8
1-Methylnaphthalene	<0.05	Di-n-octyl phthalate	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/30/17	Lab ID:	07-223 mb
Date Analyzed:	01/31/17	Data File:	013105.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	101	56	115
Phenol-d6	101	54	113
Nitrobenzene-d5	103	31	164
2-Fluorobiphenyl	103	47	133
2,4,6-Tribromophenol	99	35	141
Terphenyl-d14	115	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.1	Hexachlorocyclopentadiene	<0.03
Bis(2-chloroethyl) ether	<0.01	2,4,6-Trichlorophenol	<0.1
2-Chlorophenol	<0.1	2,4,5-Trichlorophenol	<0.1
1,3-Dichlorobenzene	<0.01	2-Chloronaphthalene	<0.01
1,4-Dichlorobenzene	<0.01	2-Nitroaniline	<0.05
1,2-Dichlorobenzene	<0.01	Dimethyl phthalate	<0.1
Benzyl alcohol	<0.1	2,6-Dinitrotoluene	<0.05
2,2'-Oxybis(1-chloropropane)	<0.01	3-Nitroaniline	<1
2-Methylphenol	<0.1	2,4-Dinitrophenol	<0.3
Hexachloroethane	<0.01	Dibenzofuran	<0.01
N-Nitroso-di-n-propylamine	<0.01	2,4-Dinitrotoluene	<0.05
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitrophenol	<0.3
Nitrobenzene	<0.01	Diethyl phthalate	<0.1
Isophorone	<0.01	4-Chlorophenyl phenyl ether	<0.01
2-Nitrophenol	<0.1	N-Nitrosodiphenylamine	<0.01
2,4-Dimethylphenol	<0.1	4-Nitroaniline	<1
Benzoic acid	<0.5	4,6-Dinitro-2-methylphenol	<0.3
Bis(2-chloroethoxy)methane	<0.01	4-Bromophenyl phenyl ether	<0.01
2,4-Dichlorophenol	<0.1	Hexachlorobenzene	<0.01
1,2,4-Trichlorobenzene	<0.01	Pentachlorophenol	<0.1
Hexachlorobutadiene	<0.01	Carbazole	<0.1
4-Chloroaniline	<1	Di-n-butyl phthalate	<0.1
4-Chloro-3-methylphenol	<0.1	Benzyl butyl phthalate	<0.1
2-Methylnaphthalene	<0.01	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.01	Di-n-octyl phthalate	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW10-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/31/17	Lab ID:	701300-01 1/50
Date Analyzed:	02/01/17	Data File:	020108.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	75 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW8-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/31/17	Lab ID:	701300-05 1/50
Date Analyzed:	02/01/17	Data File:	020109.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	70 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B13-5.5-6.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	02/07/17	Lab ID:	701300-13 1/50
Date Analyzed:	02/07/17	Data File:	020715.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	75 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW9-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/31/17	Lab ID:	701300-18 1/50
Date Analyzed:	02/01/17	Data File:	020110.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	80 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B12-6-7	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac 150054, F&BI 701300
Date Extracted:	02/07/17	Lab ID:	701300-22 1/50
Date Analyzed:	02/07/17	Data File:	020716.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	45 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701300
Date Extracted:	01/31/17	Lab ID:	07-225 mb 1/5
Date Analyzed:	02/01/17	Data File:	020107.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	77	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701300
Date Extracted:	02/07/17	Lab ID:	07-250 mb 1/5
Date Analyzed:	02/07/17	Data File:	020707.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

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

Laboratory Code: 701295-19 (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	95	64-133	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	92	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	94	100	80-120	6
Barium	mg/kg (ppm)	50	99	101	80-120	2
Cadmium	mg/kg (ppm)	10	96	99	80-120	3
Chromium	mg/kg (ppm)	50	101	103	80-120	2
Copper	mg/kg (ppm)	50	99	101	80-120	2
Lead	mg/kg (ppm)	50	99	103	80-120	4
Mercury	mg/kg (ppm)	10	107	105	80-120	2
Nickel	mg/kg (ppm)	25	99	100	80-120	1
Selenium	mg/kg (ppm)	5	91	93	80-120	2
Silver	mg/kg (ppm)	10	97	94	80-120	3
Zinc	mg/kg (ppm)	50	89	92	80-120	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

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

Laboratory Code: 701275-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Hexane	mg/kg (ppm)	2.5	<0.25	17	31	10-95	58 vo
Benzene	mg/kg (ppm)	2.5	<0.03	59	68	26-114	14
Toluene	mg/kg (ppm)	2.5	<0.05	71	80	34-112	12
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	72	82	34-115	13
m,p-Xylene	mg/kg (ppm)	5	<0.1	71	82	25-125	14
o-Xylene	mg/kg (ppm)	2.5	<0.05	76	85	27-126	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Hexane	mg/kg (ppm)	2.5	83	55-107
Benzene	mg/kg (ppm)	2.5	91	72-106
Toluene	mg/kg (ppm)	2.5	104	74-111
Ethylbenzene	mg/kg (ppm)	2.5	105	75-112
m,p-Xylene	mg/kg (ppm)	5	103	77-115
o-Xylene	mg/kg (ppm)	2.5	104	76-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

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

Laboratory Code: 701377-16 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	94	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	90	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	90	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	86	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	81	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	81	31-146

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	94	95	51-115	1
Chrysene	mg/kg (ppm)	0.17	94	95	55-129	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	97	95	56-123	2
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	98	93	54-131	5
Benzo(a)pyrene	mg/kg (ppm)	0.17	83	84	51-118	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	75	80	49-148	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	76	81	50-141	6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

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

Laboratory Code: 701300-05 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	86	44-129
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	86	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	85	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	87	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	86	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	91	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	94	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	82	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	85	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	86	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	87	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	79	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	77	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	82	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	78	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	87	91	58-121	4
Acenaphthylene	mg/kg (ppm)	0.17	84	89	54-121	6
Acenaphthene	mg/kg (ppm)	0.17	88	92	54-123	4
Fluorene	mg/kg (ppm)	0.17	90	93	56-127	3
Phenanthrene	mg/kg (ppm)	0.17	87	91	55-122	4
Anthracene	mg/kg (ppm)	0.17	94	97	50-120	3
Fluoranthene	mg/kg (ppm)	0.17	97	101	54-129	4
Pyrene	mg/kg (ppm)	0.17	83	84	53-127	1
Benz(a)anthracene	mg/kg (ppm)	0.17	87	88	51-115	1
Chrysene	mg/kg (ppm)	0.17	88	96	55-129	9
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	86	91	56-123	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	91	95	54-131	4
Benzo(a)pyrene	mg/kg (ppm)	0.17	80	83	51-118	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	77	84	49-148	9
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	79	89	50-141	12
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	78	86	52-131	10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 701300-15 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Phenol	mg/kg (ppm)	0.33	<0.5	94	50-150
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Chlorophenol	mg/kg (ppm)	0.33	<0.5	94	44-133
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	91	50-150
Benzyl alcohol	mg/kg (ppm)	0.33	<0.5	92	50-150
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	<0.05	92	50-150
2-Methylphenol	mg/kg (ppm)	0.33	<0.5	94	42-143
Hexachloroethane	mg/kg (ppm)	0.33	<0.05	92	31-132
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	<0.05	95	50-150
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	<1	92	10-250
Nitrobenzene	mg/kg (ppm)	0.33	<0.05	98	50-150
Iso phorone	mg/kg (ppm)	0.33	<0.05	96	50-150
2-Nitrophenol	mg/kg (ppm)	0.33	<0.5	109	29-152
2,4-Dimethylphenol	mg/kg (ppm)	0.33	<0.5	90	16-163
Benzoic acid	mg/kg (ppm)	0.5	<2.5	110	10-250
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	<0.05	94	50-150
2,4-Dichlorophenol	mg/kg (ppm)	0.33	<0.5	96	39-145
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	<0.05	93	50-150
Hexachlorobutadiene	mg/kg (ppm)	0.33	<0.05	93	50-150
4-Chloroaniline	mg/kg (ppm)	0.66	<5	71	23-110
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	<0.5	100	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	95	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	95	50-150
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	<0.15	105	10-151
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	99	38-149
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	100	50-150
2-Chloronaphthalene	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Nitroaniline	mg/kg (ppm)	0.33	<0.25	102	50-150
Dimethyl phthalate	mg/kg (ppm)	0.33	<0.5	101	50-150
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	107	50-150
3-Nitroaniline	mg/kg (ppm)	0.66	<5	83	23-119
2,4-Dinitrophenol	mg/kg (ppm)	0.33	<1.5	109	10-162
Dibenzo furan	mg/kg (ppm)	0.33	<0.05	95	47-149
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	107	50-150
4-Nitrophenol	mg/kg (ppm)	0.33	<1.5	91	10-179
Diethyl phthalate	mg/kg (ppm)	0.33	<0.5	102	50-150
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	94	50-150
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	<0.05	98	50-150
4-Nitroaniline	mg/kg (ppm)	0.66	<5	103	32-135
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	<1.5	111	10-170
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	97	50-150
Hexachlorobenzene	mg/kg (ppm)	0.33	<0.05	97	50-150
Pentachlorophenol	mg/kg (ppm)	0.33	<0.5	103	12-160
Carbazole	mg/kg (ppm)	0.33	<0.5	103	50-150
Di-n-butyl phthalate	mg/kg (ppm)	0.33	<0.5	102	50-150
Benzyl butyl phthalate	mg/kg (ppm)	0.33	<0.5	104	50-150
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	<0.8	103	10-250
Di-n-octyl phthalate	mg/kg (ppm)	0.33	<0.5	99	54-161

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	mg/kg (ppm)	0.33	99	98	51-119	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	97	93	60-112	4
2-Chlorophenol	mg/kg (ppm)	0.33	97	94	59-114	3
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	94	86	62-113	9
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	94	87	61-114	8
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	94	88	61-113	7
Benzyl alcohol	mg/kg (ppm)	0.33	101	100	50-119	1
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	98	93	59-113	5
2-Methylphenol	mg/kg (ppm)	0.33	96	94	58-115	2
Hexachloroethane	mg/kg (ppm)	0.33	95	88	63-114	8
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	103	103	62-114	0
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	98	97	54-120	1
Nitrobenzene	mg/kg (ppm)	0.33	103	100	59-114	3
Ispophorone	mg/kg (ppm)	0.33	103	104	61-113	1
2-Nitrophenol	mg/kg (ppm)	0.33	116 vo	113	59-114	3
2,4-Dimethylphenol	mg/kg (ppm)	0.33	77	66	54-107	15
Benzoic acid	mg/kg (ppm)	0.5	118	113	43-150	4
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	100	99	60-114	1
2,4-Dichlorophenol	mg/kg (ppm)	0.33	102	103	57-118	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	97	93	56-112	4
Hexachlorobutadiene	mg/kg (ppm)	0.33	97	92	60-116	5
4-Chloroaniline	mg/kg (ppm)	0.66	41	46	10-126	11
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	102	100	59-115	2
2-Methylnaphthalene	mg/kg (ppm)	0.33	98	97	60-115	1
1-Methylnaphthalene	mg/kg (ppm)	0.33	100	98	70-130	2
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	129 vo	125 vo	41-107	3
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	106	105	47-119	1
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	105	105	61-121	0
2-Chloronaphthalene	mg/kg (ppm)	0.33	99	99	58-114	0
2-Nitroaniline	mg/kg (ppm)	0.33	112	109	55-119	3
Dimethyl phthalate	mg/kg (ppm)	0.33	107	104	58-116	3
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	115	112	57-119	3
3-Nitroaniline	mg/kg (ppm)	0.66	83	82	10-143	1
2,4-Dinitrophenol	mg/kg (ppm)	0.33	120	111	40-122	8
Dibenzofuran	mg/kg (ppm)	0.33	100	98	56-115	2
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	113	110	53-126	3
4-Nitrophenol	mg/kg (ppm)	0.33	97	90	40-124	7
Diethyl phthalate	mg/kg (ppm)	0.33	106	102	57-116	4
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	98	97	54-119	1
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	97	98	54-113	1
4-Nitroaniline	mg/kg (ppm)	0.66	99	93	47-109	6
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	124	121	55-147	2
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	104	104	56-116	0
Hexachlorobenzene	mg/kg (ppm)	0.33	103	104	57-115	1
Pentachlorophenol	mg/kg (ppm)	0.33	106	104	45-123	2
Carbazole	mg/kg (ppm)	0.33	97	100	57-116	3
Di-n-butyl phthalate	mg/kg (ppm)	0.33	103	102	56-118	1
Benzyl butyl phthalate	mg/kg (ppm)	0.33	111	109	56-122	2
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	103	101	56-155	2
Di-n-octyl phthalate	mg/kg (ppm)	0.33	99	96	58-120	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 701300-18 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	81	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	75	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	82	77	55-130	6
Aroclor 1260	mg/kg (ppm)	0.8	81	79	58-133	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac 150054, F&BI 701300

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 702015-01 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	88	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	83	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	84	81	55-130	4
Aroclor 1260	mg/kg (ppm)	0.8	83	82	58-133	1

FRIEDMAN & BRUYA, INC.

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.
- 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.



**Fremont**  
*Analytical*

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**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 701300**  
**Work Order Number: 1701313**

February 02, 2017

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 8 sample(s) on 1/26/2017 for the analyses presented in the following report.

***Total Organic Carbon by EPA 9060***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway  
Laboratory Director



Date: 02/02/2017

**CLIENT:** Friedman & Bruya  
**Project:** 701300  
**Work Order:** 1701313

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1701313-001	MW10-5-6	01/25/2017 9:05 AM	01/26/2017 1:58 PM
1701313-002	MW10-15.5-16.5	01/25/2017 9:10 AM	01/26/2017 1:58 PM
1701313-003	MW8-5-6	01/25/2017 10:55 AM	01/26/2017 1:58 PM
1701313-004	MW8-15.5-16.5	01/25/2017 11:05 AM	01/26/2017 1:58 PM
1701313-005	MW5-10-10.5	01/25/2017 12:20 PM	01/26/2017 1:58 PM
1701313-006	MW5-15.8-17	01/25/2017 12:25 PM	01/26/2017 1:58 PM
1701313-007	MW9-5-6	01/25/2017 3:25 PM	01/26/2017 1:58 PM
1701313-008	MW9-15-16	01/25/2017 3:35 PM	01/26/2017 1:58 PM



## Case Narrative

WO#: 1701313

Date: 2/2/2017

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**CLIENT:** Friedman & Bruya  
**Project:** 701300

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### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 1701313  
Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701300

**Lab ID:** 1701313-001                   **Collection Date:** 1/25/2017 9:05:00 AM

**Client Sample ID:** MW10-5-6

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.125	0.0500		%-dry	1	2/1/2017 12:16:29 PM

**Lab ID:** 1701313-002                   **Collection Date:** 1/25/2017 9:10:00 AM

**Client Sample ID:** MW10-15.5-16.5

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.175	0.0500		%-dry	1	2/1/2017 12:48:33 PM

**Lab ID:** 1701313-003                   **Collection Date:** 1/25/2017 10:55:00 AM

**Client Sample ID:** MW8-5-6

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.428	0.0500		%-dry	1	2/1/2017 1:00:22 PM



## Analytical Report

Work Order: 1701313  
Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701300

**Lab ID:** 1701313-004

**Collection Date:** 1/25/2017 11:05:00 AM

**Client Sample ID:** MW8-15.5-16.5

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.889	0.0500		%-dry	1	2/1/2017 1:10:18 PM

**Lab ID:** 1701313-005

**Collection Date:** 1/25/2017 12:20:00 PM

**Client Sample ID:** MW5-10-10.5

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	1.28	0.0500		%-dry	1	2/1/2017 1:24:53 PM

**Lab ID:** 1701313-006

**Collection Date:** 1/25/2017 12:25:00 PM

**Client Sample ID:** MW5-15.8-17

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.175	0.0500		%-dry	1	2/1/2017 1:35:39 PM



## Analytical Report

Work Order: 1701313

Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701300

**Lab ID:** 1701313-007

**Collection Date:** 1/25/2017 3:25:00 PM

**Client Sample ID:** MW9-5-6

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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### Total Organic Carbon by EPA 9060

Batch ID: 16101 Analyst: KT

Total Organic Carbon	0.278	0.0500	%-dry	1	2/1/2017 1:46:02 PM
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**Lab ID:** 1701313-008

**Collection Date:** 1/25/2017 3:35:00 PM

**Client Sample ID:** MW9-15-16

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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### Total Organic Carbon by EPA 9060

Batch ID: 16101 Analyst: KT

Total Organic Carbon	0.545	0.0500	%-dry	1	2/1/2017 1:58:19 PM
----------------------	-------	--------	-------	---	---------------------



Date: 2/2/2017

Work Order: 1701313  
CLIENT: Friedman & Bruya  
Project: 701300

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA 9060**

Sample ID: <b>MB-16101</b>	SampType: <b>MBLK</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>MBLKS</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652100</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	ND	0.0500						

Sample ID: <b>LCS-16101</b>	SampType: <b>LCS</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>LCSS</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652101</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	0.724	0.0500	0.6070	0	119	41.1	157	

Sample ID: <b>1701312-001ADUP</b>	SampType: <b>DUP</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>BATCH</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652103</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	3.14	0.0500						

Sample ID: <b>1701312-001AMS</b>	SampType: <b>MS</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>BATCH</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652104</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	4.29	0.0500	1.000	3.101	119	50.2	118	S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: <b>1701312-001AMSD</b>	SampType: <b>MSD</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>BATCH</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652105</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	4.25	0.0500	1.000	3.101	115	50.2	118	4.291



Date: 2/2/2017

Work Order: 1701313  
CLIENT: Friedman & Bruya  
Project: 701300

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA 9060**

Sample ID: 1701313-001ADUP	SampType: DUP	Units: %-dry			Prep Date: 2/1/2017			RunNo: 34211			
Client ID: MW10-5-6	Batch ID: 16101				Analysis Date: 2/1/2017			SeqNo: 652113			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.286	0.0500						0.1246	78.5	30	R

**NOTES:**

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID: 1701313-001AMS	SampType: MS	Units: %-dry			Prep Date: 2/1/2017			RunNo: 34211			
Client ID: MW10-5-6	Batch ID: 16101				Analysis Date: 2/1/2017			SeqNo: 652114			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.14	0.0500	1.000	0.1246	102	50.2	118				



## Sample Log-In Check List

Client Name: **FB**  
Logged by: **Clare Griggs**

Work Order Number: **1701313**  
Date Received: **1/26/2017 1:58:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
2. How was the sample delivered? FedEx

### Log In

3. Coolers are present? Yes  No  NA   
**No cooler present.**  
4. Shipping container/cooler in good condition? Yes  No   
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required   
6. Was an attempt made to cool the samples? Yes  No  NA   
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA   
8. Sample(s) in proper container(s)? Yes  No   
9. Sufficient sample volume for indicated test(s)? Yes  No   
10. Are samples properly preserved? Yes  No   
11. Was preservative added to bottles? Yes  No  NA   
12. Is there headspace in the VOA vials? Yes  No  NA   
13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
14. Does paperwork match bottle labels? Yes  No   
15. Are matrices correctly identified on Chain of Custody? Yes  No   
16. Is it clear what analyses were requested? Yes  No   
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Sample	5.9

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company \_\_\_\_\_ Friedman and Bruya, Inc.

Address \_\_\_\_\_ 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (306) 285-8222 Fax # (306) 283-5044

SUBCONTRACTER	
<i>Fremont</i>	
PROJECT NAME/NO.	PO #
<i>#01300</i>	<i>E-468</i>
REMARKS	Please Email Results

<b>TURNAROUND TIME</b> <input checked="" type="checkbox"/> Standard (2 Weeks) <b>Week</b> <input type="checkbox"/> RUSH <hr/> Rush charges authorized by: _____
<b>SAMPLE DISPOSAL</b> <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions

Friedman & Bruya, Inc.

3012 16th Avenue West

Sagittis WA 08110 2020

Ph. (206) 285-8282

Far (2006) 28:3–5011

701300

Send Report To Livsi Longley

Company Aspect Consulting

Address Klonglape aspect consulting.com

City, State, ZIP Rattle, WA 7Y104

Phone # 2068124346 Fax #

SAMPLE CHAIN OF CUSTODY ME 01-26-17 VS2/BT4

Page # 1 of 1

SAMPLES (signature) <u>Federer</u>		PROJECT NAME/NO. <u>Snapc 150054</u>	PO#
REMARKS * Hold extra jars pending analysis.			

ANALYSES REQUESTED		TURNAROUND TIME
		<input checked="" type="checkbox"/> Standard (2 Weeks)
		<input type="checkbox"/> RUSH
		Rush charges authorized by _____
SAMPLE DISPOSAL		
<input type="checkbox"/> Dispose after 30 days		
<input checked="" type="checkbox"/> Return samples		
<input checked="" type="checkbox"/> Will call with instructions		

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 82215	VOCs by 8260	SVOCs by 8270	HFS	
MW10-5-6	01AEE	10/25/17	905	S	6	X	X	X	X	X	PCP, BTEX, TBT	*
MW10-15.5-16.5	02		910		6	X	X	X	X	X	PCP, BTEX, TBT	*
MW10-11-12	03		915		6							HOLD
MW10-24-25	04		920		6							HOLD
MW8-5-6	05		1055		6	X	X	X	X	X	PCP, BTEX, TBT	*
MW8-10.7-11.8	06		1100		6							HOLD
MW8-15.5-16.5	07		1105		6	X	X	X	X	X	PCP, BTEX, TBT	*
MW8-20-21	08		1110		6							HOLD
MW5-6.3-7	09		1215		6							HOLD
MW5-10-10.5	10 AEE		1220		5	X	X	X	X	X	PCP, BTEX, TBT	*

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

Relinquished by: D. Longley SIGNATURE D. Longley PRINT NAME Aspect COMPANY 126/17 DATE 126/17 TIME  
Received by: D. Longley D. Longley Aspect PCP, BTEX, TBT  
Relinquished by: D. Longley D. Longley Aspect PCP, BTEX, TBT  
Received by: D. Longley D. Longley Aspect PCP, BTEX, TBT  
Received by: D. Longley D. Longley Aspect PCP, BTEX, TBT

701300

## SAMPLE CHAIN OF CUSTODY ME 01-26-17

JS2/24

Send Report To Virsi LongleyCompany Aspect ConsultingAddress LongkeyCarterBulw.comCity, State, ZIP Seattle, WA 98101Phone # 2068124747 Fax # 

SAMPLERS (signature) <u>Eric Kneller</u>	PROJECT NAME/NO. <u>Synpac 150054</u>	PO# <u></u>
REMARKS * Hold extra Jars pending analysis		

ANALYSES REQUESTED		TURNAROUND TIME
<input checked="" type="checkbox"/> Standard (2 Weeks)	<input type="checkbox"/> RUSH	Rush charges authorized by
<input checked="" type="checkbox"/> Will call with instructions		SAMPLE DISPOSAL
<input type="checkbox"/> Dispose after 30 days		<input type="checkbox"/> Return samples

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX	VOCs by 8260	SVOCs by 8270	HFS	TOC	PCBs	PCP, Ni, Zn	TBT	cPAHs	ANALYSES REQUESTED	DATE	TIME
MW5-15.8-17	11A-25-17	1225	S	6	X							X	X				<input checked="" type="checkbox"/> Per 14	1/26/17	10:00
MWS-18-19	12	1230	S	6													<input checked="" type="checkbox"/> HOLD		
B13-5.5-16.5	13	1345	S	6													<input checked="" type="checkbox"/> HOLD		
B13 - 10-11	14	1350		6													<input checked="" type="checkbox"/> HOLD		
B13 - 17.5 - 18.5	15	1355		6													<input checked="" type="checkbox"/> HOLD		
B13 - 0.5 - 1.5	16	1340		6													<input checked="" type="checkbox"/> HOLD		
MW9 - 12-13	17	1530		6													<input checked="" type="checkbox"/> HOLD		
MW9 - 5-6	18	1525		6	X	X	X	X	X	X						<input checked="" type="checkbox"/> Samples received at 3			
MW9 - 15-16	19	1535		6	X	X	X	X	X	X						<input checked="" type="checkbox"/> HOLD			
MW9 - 18-19	20	1540	L	6													<input checked="" type="checkbox"/> HOLD		

Friedman &amp; Branya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMSCOCOCOC.DOC

Requested by: <u>Virsi Longley</u>	SIGNATURE	PRINT NAME <u>Virsi Longley</u>	COMPANY <u>Aspect</u>	DATE <u>1/26/17</u>	TIME <u>10:00</u>
Received by: <u>Aspect</u>		<u>Aspect</u>	<u>Eric Kneller</u>	<u>Eric</u>	<u>10:00</u>
Relinquished by: <u>Aspect</u>					
Received by: <u>Aspect</u>					

201303

Report To ~~First Angle~~

Company Aspect Consulting

Address Konglugeasconsulting.com

جَنْدِيَةٌ سَامِيٌّ

City, State, Zip

**SAMPLE CHAIN OF CUSTODY**

152/ B.14

SAMPLERS <i>[Signature]</i> Eric Knoedler		Page # <u>5</u> of <u>2</u>
PROJECT NAME		TURNAROUND TIME
Snapac	1500SL	<input checked="" type="checkbox"/> Standard Turnaround
		<input type="checkbox"/> RUSH
		Rush charges authorized by:
REMARKS		SAMPLE DISPOSAL
<i>* Hold extra jars pending analysis.</i>		<input type="checkbox"/> Dispose after 30 days
		<input type="checkbox"/> Archive Samples
		<input type="checkbox"/> Other <u>None</u>

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kris Longay	Aspect	1/26/17	
Received by:	Debra O'Shea	FedEx Sec	1/26/17	9:36
Relinquishted by:				
Received by:	Debra O'Shea	FedEx	1-26-17	10:17

# 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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 15, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 27, 2017 from the Snopac 150054, F&BI 701333 project. There are 37 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0215R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 27, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 701333 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
701333 -01	MW7-3-4
701333 -02	MW7-13-14
701333 -03	MW7-10-11
701333 -04	MW7-17-18
701333 -05	MW12-2-3
701333 -06	MW12-6-7
701333 -07	MW12-17.5-18.5
701333 -08	MW12-11-12
701333 -09	MW6-SBG-5.2-5.4
701333 -10	MW6-7-8
701333 -11	MW6-SBG-2-2.5
701333 -12	MW6-15-16
701333 -13	MW6-18-19
701333 -14	MW11-10-11
701333 -15	MW11-15-16

Samples MW7-10-11, MW7-17-18, MW12-17.5-18.5, MW12-11-12, MW6-7-8, MW6-15-16, and MW11-10-11 were sent to Fremont Analytical for total organic carbon analysis. The report is enclosed.

Samples MW6-SBG-5.2-5.4 and MW11-10-11 were sent to ALS (Kelso) for tributyltin analysis. The report will be forwarded to your office upon completion.

A 6020A internal standard failed the acceptance criteria for sample MW11-10-11 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

The 8260C sample MW6-SBG-5.2-5.4 was taken from a four ounce soil jar. The data were flagged accordingly.

Pentachlorophenol was reported below the standard reporting limit in the 8270D sample MW6-SBG-5.2-5.4. The data were flagged accordingly.

Several compounds in the 8270D laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/27/17

Project: Snopac 150054, F&BI 701333

Date Extracted: 01/30/17

Date Analyzed: 01/30/17

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 48-168)
MW7-10-11 701333-03	<50	<250	101
MW7-17-18 701333-04	<50	<250	96
MW12-17.5-18.5 701333-07	<50	<250	102
MW12-11-12 701333-08	<50	<250	105
MW6-7-8 701333-10	<50	<250	101
MW6-15-16 701333-12	<50	<250	94
MW11-10-11 701333-14	190 x	1,300	98
Method Blank 07-222 MB	<50	<250	106

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW7-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-03
Date Analyzed:	02/02/17	Data File:	701333-03.069
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<5
Barium	9.46
Cadmium	<1
Chromium	7.19
Copper	9.37
Lead	3.14
Mercury	<1
Nickel	4.88
Selenium	<5
Silver	<1
Zinc	21.4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW7-17-18	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-04
Date Analyzed:	02/02/17	Data File:	701333-04.070
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<5
Barium	8.31
Cadmium	<1
Chromium	10.0
Copper	8.34
Lead	<1
Mercury	<1
Nickel	5.13
Selenium	<5
Silver	<1
Zinc	15.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW12-17.5-18.5	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-07
Date Analyzed:	02/02/17	Data File:	701333-07.071
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<5
Barium	9.44
Cadmium	<1
Chromium	7.34
Copper	5.08
Lead	<1
Mercury	<1
Nickel	5.73
Selenium	<5
Silver	<1
Zinc	12.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW12-11-12	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-08
Date Analyzed:	02/02/17	Data File:	701333-08.072
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.00
Barium	14.8
Cadmium	<1
Chromium	10.7
Copper	24.0
Lead	2.84
Mercury	<1
Nickel	8.39
Selenium	<5
Silver	<1
Zinc	17.5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW6-7-8	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-10
Date Analyzed:	02/02/17	Data File:	701333-10.073
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<5
Barium	8.83
Cadmium	<1
Chromium	6.01
Copper	7.25
Lead	<1
Mercury	<1
Nickel	4.63
Selenium	<5
Silver	<1
Zinc	18.0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW6-15-16	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-12
Date Analyzed:	02/02/17	Data File:	701333-12.074
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	21.9
Barium	14.1
Cadmium	<1
Chromium	7.72
Copper	21.1
Lead	10.6
Mercury	<1
Nickel	5.55
Selenium	<5
Silver	<1
Zinc	51.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW11-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-14
Date Analyzed:	02/02/17	Data File:	701333-14.075
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	582 J
Barium	41.1 J
Cadmium	<1 J
Chromium	32.6
Copper	457
Lead	458 ve
Mercury	<1
Nickel	16.3
Selenium	<5 J
Silver	<1 J
Zinc	1,680

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW11-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	701333-14 x10
Date Analyzed:	02/03/17	Data File:	701333-14 x10.043
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	798
Barium	65.8
Cadmium	<10
Lead	524
Selenium	<50
Silver	<10

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/02/17	Lab ID:	I7-052 mb
Date Analyzed:	02/02/17	Data File:	I7-052 mb.053
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<5
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<5
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW6-SBG-5.2-5.4 pc	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/30/17	Lab ID:	701333-09
Date Analyzed:	01/30/17	Data File:	013012.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	94	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/30/17	Lab ID:	07-181 mb
Date Analyzed:	01/30/17	Data File:	013008.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	89	113
Toluene-d8	95	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW6-SBG-5.2-5.4	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/30/17	Lab ID:	701333-09 1/250
Date Analyzed:	01/31/17	Data File:	013116.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	373 d	31	163
Benzo(a)anthracene-d12	114 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.5
Acenaphthylene	<0.5
Acenaphthene	<0.5
Fluorene	<0.5
Phenanthrene	1.7
Anthracene	<0.5
Fluoranthene	4.2
Pyrene	4.5
Benz(a)anthracene	2.4
Chrysene	2.9
Benzo(a)pyrene	2.8
Benzo(b)fluoranthene	3.4
Benzo(k)fluoranthene	1.4
Indeno(1,2,3-cd)pyrene	2.0
Dibenz(a,h)anthracene	<0.5
Benzo(g,h,i)perylene	1.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW11-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/07/17	Lab ID:	701333-14 1/50
Date Analyzed:	02/07/17	Data File:	020711.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	114 d	31	163
Benzo(a)anthracene-d12	101 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	0.17
Anthracene	<0.1
Fluoranthene	0.34
Pyrene	0.40
Benz(a)anthracene	0.18
Chrysene	0.29
Benzo(a)pyrene	0.25
Benzo(b)fluoranthene	0.35
Benzo(k)fluoranthene	<0.1
Indeno(1,2,3-cd)pyrene	0.18
Dibenz(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	0.20

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/07/17	Lab ID:	07-247 mb2 1/5
Date Analyzed:	02/07/17	Data File:	020705.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	77	31	163
Benzo(a)anthracene-d12	91	24	168

Compounds:	Concentration mg/kg (ppm)
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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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/30/17	Lab ID:	07-224 mb 1/5
Date Analyzed:	01/31/17	Data File:	013106.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96	31	163
Benzo(a)anthracene-d12	98	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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW6-SBG-5.2-5.4  
 Date Received: 01/27/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 701333  
 Lab ID: 701333-09 1/250  
 Data File: 013115.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	107 d	56	115
Phenol-d6	110 d	54	113
Nitrobenzene-d5	105 d	31	164
2-Fluorobiphenyl	105 d	47	133
2,4,6-Tribromophenol	80 d	35	141
Terphenyl-d14	120 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<25	Hexachlorocyclopentadiene	<7.5
Bis(2-chloroethyl) ether	<2.5	2,4,6-Trichlorophenol	<25
2-Chlorophenol	<25	2,4,5-Trichlorophenol	<25
1,3-Dichlorobenzene	<2.5	2-Chloronaphthalene	<2.5
1,4-Dichlorobenzene	<2.5	2-Nitroaniline	<12
1,2-Dichlorobenzene	<2.5	Dimethyl phthalate	<25
Benzyl alcohol	<25	2,6-Dinitrotoluene	<12
2,2'-Oxybis(1-chloropropane)	<2.5	3-Nitroaniline	<250
2-Methylphenol	<25	2,4-Dinitrophenol	<75
Hexachloroethane	<2.5	Dibenzofuran	<2.5
N-Nitroso-di-n-propylamine	<2.5	2,4-Dinitrotoluene	<12
3-Methylphenol + 4-Methylphenol	<50	4-Nitrophenol	<75
Nitrobenzene	<2.5	Diethyl phthalate	<25
Isophorone	<2.5	4-Chlorophenyl phenyl ether	<2.5
2-Nitrophenol	<25	N-Nitrosodiphenylamine	<2.5
2,4-Dimethylphenol	<25	4-Nitroaniline	<250
Benzoic acid	<120	4,6-Dinitro-2-methylphenol	<75
Bis(2-chloroethoxy)methane	<2.5	4-Bromophenyl phenyl ether	<2.5
2,4-Dichlorophenol	<25	Hexachlorobenzene	<2.5
1,2,4-Trichlorobenzene	<2.5	Pentachlorophenol	7.6 j
Hexachlorobutadiene	<2.5	Carbazole	<25
4-Chloroaniline	<250	Di-n-butyl phthalate	<25
4-Chloro-3-methylphenol	<25	Benzyl butyl phthalate	<25
2-Methylnaphthalene	<2.5	Bis(2-ethylhexyl) phthalate	<40
1-Methylnaphthalene	<2.5	Di-n-octyl phthalate	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW11-10-11  
 Date Received: 01/27/17  
 Date Extracted: 02/07/17  
 Date Analyzed: 02/07/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 701333  
 Lab ID: 701333-14 1/50  
 Data File: 020707.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	89 d ca	56	115
Phenol-d6	88 d	54	113
Nitrobenzene-d5	80 d	31	164
2-Fluorobiphenyl	85 d	47	133
2,4,6-Tribromophenol	81 d ca	35	141
Terphenyl-d14	99 d ca	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	<0.5
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	<5
Hexachlorobutadiene	<0.5	Carbazole	<5
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	<0.5	Di-n-octyl phthalate	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/30/17	Lab ID:	07-223 mb
Date Analyzed:	01/31/17	Data File:	013105.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	101	56	115
Phenol-d6	101	54	113
Nitrobenzene-d5	103	31	164
2-Fluorobiphenyl	103	47	133
2,4,6-Tribromophenol	99	35	141
Terphenyl-d14	115	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.1	Hexachlorocyclopentadiene	<0.03
Bis(2-chloroethyl) ether	<0.01	2,4,6-Trichlorophenol	<0.1
2-Chlorophenol	<0.1	2,4,5-Trichlorophenol	<0.1
1,3-Dichlorobenzene	<0.01	2-Chloronaphthalene	<0.01
1,4-Dichlorobenzene	<0.01	2-Nitroaniline	<0.05
1,2-Dichlorobenzene	<0.01	Dimethyl phthalate	<0.1
Benzyl alcohol	<0.1	2,6-Dinitrotoluene	<0.05
2,2'-Oxybis(1-chloropropane)	<0.01	3-Nitroaniline	<1
2-Methylphenol	<0.1	2,4-Dinitrophenol	<0.3
Hexachloroethane	<0.01	Dibenzofuran	<0.01
N-Nitroso-di-n-propylamine	<0.01	2,4-Dinitrotoluene	<0.05
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitrophenol	<0.3
Nitrobenzene	<0.01	Diethyl phthalate	<0.1
Isophorone	<0.01	4-Chlorophenyl phenyl ether	<0.01
2-Nitrophenol	<0.1	N-Nitrosodiphenylamine	<0.01
2,4-Dimethylphenol	<0.1	4-Nitroaniline	<1
Benzoic acid	<0.5	4,6-Dinitro-2-methylphenol	<0.3
Bis(2-chloroethoxy)methane	<0.01	4-Bromophenyl phenyl ether	<0.01
2,4-Dichlorophenol	<0.1	Hexachlorobenzene	<0.01
1,2,4-Trichlorobenzene	<0.01	Pentachlorophenol	<0.1
Hexachlorobutadiene	<0.01	Carbazole	<0.1
4-Chloroaniline	<1	Di-n-butyl phthalate	<0.1
4-Chloro-3-methylphenol	<0.1	Benzyl butyl phthalate	<0.1
2-Methylnaphthalene	<0.01	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.01	Di-n-octyl phthalate	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/07/17	Lab ID:	07-248 mb2
Date Analyzed:	02/07/17	Data File:	020704.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	99 ca	56	115
Phenol-d6	100 ca	54	113
Nitrobenzene-d5	95	31	164
2-Fluorobiphenyl	95	47	133
2,4,6-Tribromophenol	93 ca	35	141
Terphenyl-d14	124 ca	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.1	Hexachlorocyclopentadiene	<0.03
Bis(2-chloroethyl) ether	<0.01	2,4,6-Trichlorophenol	<0.1
2-Chlorophenol	<0.1	2,4,5-Trichlorophenol	<0.1
1,3-Dichlorobenzene	<0.01	2-Chloronaphthalene	<0.01
1,4-Dichlorobenzene	<0.01	2-Nitroaniline	<0.05
1,2-Dichlorobenzene	<0.01	Dimethyl phthalate	<0.1
Benzyl alcohol	<0.1	2,6-Dinitrotoluene	<0.05
2,2'-Oxybis(1-chloropropane)	<0.01	3-Nitroaniline	<1
2-Methylphenol	<0.1	2,4-Dinitrophenol	<0.3
Hexachloroethane	<0.01	Dibenzofuran	<0.01
N-Nitroso-di-n-propylamine	<0.01	2,4-Dinitrotoluene	<0.05
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitrophenol	<0.3
Nitrobenzene	<0.01	Diethyl phthalate	<0.1
Isophorone	<0.01	4-Chlorophenyl phenyl ether	<0.01
2-Nitrophenol	<0.1	N-Nitrosodiphenylamine	<0.01
2,4-Dimethylphenol	<0.1	4-Nitroaniline	<1
Benzoic acid	<0.5	4,6-Dinitro-2-methylphenol	<0.3
Bis(2-chloroethoxy)methane	<0.01	4-Bromophenyl phenyl ether	<0.01
2,4-Dichlorophenol	<0.1	Hexachlorobenzene	<0.01
1,2,4-Trichlorobenzene	<0.01	Pentachlorophenol	<0.1
Hexachlorobutadiene	<0.01	Carbazole	<0.1
4-Chloroaniline	<1	Di-n-butyl phthalate	<0.1
4-Chloro-3-methylphenol	<0.1	Benzyl butyl phthalate	<0.1
2-Methylnaphthalene	<0.01	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.01	Di-n-octyl phthalate	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW6-SBG-5.2-5.4	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/31/17	Lab ID:	701333-09 1/25
Date Analyzed:	02/01/17	Data File:	020115.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	65	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	0.24
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW11-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/27/17	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/07/17	Lab ID:	701333-14 1/25
Date Analyzed:	02/07/17	Data File:	020717.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	71	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	0.16
Aroclor 1260	0.12
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	01/31/17	Lab ID:	07-225 mb 1/5
Date Analyzed:	02/01/17	Data File:	020107.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	77	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701333
Date Extracted:	02/07/17	Lab ID:	07-250 mb 1/5
Date Analyzed:	02/07/17	Data File:	020707.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/27/17

Project: Snopac 150054, F&BI 701333

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

Laboratory Code: 701338-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	98	98	73-135	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	101	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/27/17

Project: Snopac 150054, F&BI 701333

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

Laboratory Code: 701328-09 x5 (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	<25	90	87	75-125	3
Barium	mg/kg (ppm)	50	78.3	86	86	75-125	0
Cadmium	mg/kg (ppm)	10	<5	89	89	75-125	0
Chromium	mg/kg (ppm)	50	9.01	77	80	75-125	4
Copper	mg/kg (ppm)	50	<25	80	82	75-125	2
Lead	mg/kg (ppm)	50	6.32	86	85	75-125	1
Mercury	mg/kg (ppm)	10	<5	92	90	75-125	2
Nickel	mg/kg (ppm)	25	9.70	81	85	75-125	5
Selenium	mg/kg (ppm)	5	<25	83	86	75-125	4
Silver	mg/kg (ppm)	10	<5	87	88	75-125	1
Zinc	mg/kg (ppm)	50	39.0	67 b	69 b	75-125	3 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	100	80-120
Barium	mg/kg (ppm)	50	101	80-120
Cadmium	mg/kg (ppm)	10	102	80-120
Chromium	mg/kg (ppm)	50	101	80-120
Copper	mg/kg (ppm)	50	103	80-120
Lead	mg/kg (ppm)	50	101	80-120
Mercury	mg/kg (ppm)	10	103	80-120
Nickel	mg/kg (ppm)	25	104	80-120
Selenium	mg/kg (ppm)	5	100	80-120
Silver	mg/kg (ppm)	10	95	80-120
Zinc	mg/kg (ppm)	50	92	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

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Project: Snopac 150054, F&BI 701333

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL 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)
Hexane	mg/kg (ppm)	2.5	80	78	55-107	3
Benzene	mg/kg (ppm)	2.5	86	86	72-106	0
Toluene	mg/kg (ppm)	2.5	99	99	74-111	0
Ethylbenzene	mg/kg (ppm)	2.5	97	97	75-112	0
m,p-Xylene	mg/kg (ppm)	5	95	98	77-115	3
o-Xylene	mg/kg (ppm)	2.5	97	100	76-115	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Project: Snopac 150054, F&BI 701333

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 701377-19 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Phenol	mg/kg (ppm)	0.33	<0.5	84	50-150
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	<0.05	84	50-150
2-Chlorophenol	mg/kg (ppm)	0.33	<0.5	87	44-133
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	87	50-150
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	86	50-150
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	86	50-150
Benzyl alcohol	mg/kg (ppm)	0.33	<0.5	86	50-150
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	<0.05	82	50-150
2-Methylphenol	mg/kg (ppm)	0.33	<0.5	86	42-143
Hexachloroethane	mg/kg (ppm)	0.33	<0.05	88	31-132
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	<0.05	88	50-150
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	<1	86	10-250
Nitrobenzene	mg/kg (ppm)	0.33	<0.05	84	50-150
Iso phorone	mg/kg (ppm)	0.33	<0.05	86	50-150
2-Nitrophenol	mg/kg (ppm)	0.33	<0.5	89	29-152
2,4-Dimethylphenol	mg/kg (ppm)	0.33	<0.5	83	16-163
Benzoic acid	mg/kg (ppm)	0.5	<2.5	61	10-250
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	<0.05	84	50-150
2,4-Dichlorophenol	mg/kg (ppm)	0.33	<0.5	89	39-145
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	<0.05	86	50-150
Hexachlorobutadiene	mg/kg (ppm)	0.33	<0.05	86	50-150
4-Chloroaniline	mg/kg (ppm)	0.66	<5	63	23-110
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	<0.5	92	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	94	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	94	50-150
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	<0.15	82	10-151
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	86	38-149
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	80	50-150
2-Chloronaphthalene	mg/kg (ppm)	0.33	<0.05	80	50-150
2-Nitroaniline	mg/kg (ppm)	0.33	<0.25	82	50-150
Dimethyl phthalate	mg/kg (ppm)	0.33	<0.5	79	50-150
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	85	50-150
3-Nitroaniline	mg/kg (ppm)	0.66	<5	65	23-119
2,4-Dinitrophenol	mg/kg (ppm)	0.33	<1.5	35	10-162
Dibenzo furan	mg/kg (ppm)	0.33	<0.05	86	47-149
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	86	50-150
4-Nitrophenol	mg/kg (ppm)	0.33	<1.5	62	10-179
Diethyl phthalate	mg/kg (ppm)	0.33	<0.5	85	50-150
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	89	50-150
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	<0.05	86	50-150
4-Nitroaniline	mg/kg (ppm)	0.66	<5	72	32-135
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	<1.5	42	10-170
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	98	50-150
Hexachlorobenzene	mg/kg (ppm)	0.33	<0.05	89	50-150
Pentachlorophenol	mg/kg (ppm)	0.33	<0.5	82	12-160
Carbazole	mg/kg (ppm)	0.33	<0.5	93	50-150
Di-n-butyl phthalate	mg/kg (ppm)	0.33	<0.5	93	50-150
Benzyl butyl phthalate	mg/kg (ppm)	0.33	<0.5	101	50-150
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	<0.8	100	10-250
Di-n-octyl phthalate	mg/kg (ppm)	0.33	<0.5	93	54-161

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

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Project: Snopac 150054, F&BI 701333

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	mg/kg (ppm)	0.33	92	93	51-119	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	91	91	60-112	0
2-Chlorophenol	mg/kg (ppm)	0.33	94	95	59-114	1
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	92	93	62-113	1
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	92	93	61-114	1
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	93	93	61-113	0
Benzyl alcohol	mg/kg (ppm)	0.33	97	96	50-119	1
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	89	88	59-113	1
2-Methylphenol	mg/kg (ppm)	0.33	95	92	58-115	3
Hexachloroethane	mg/kg (ppm)	0.33	94	94	63-114	0
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	97	94	62-114	3
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	95	93	54-120	2
Nitrobenzene	mg/kg (ppm)	0.33	93	95	59-114	2
Ispophorone	mg/kg (ppm)	0.33	95	94	61-113	1
2-Nitrophenol	mg/kg (ppm)	0.33	96	99	59-114	3
2,4-Dimethylphenol	mg/kg (ppm)	0.33	88	84	54-107	5
Benzoic acid	mg/kg (ppm)	0.5	100	109	43-150	9
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	94	93	60-114	1
2,4-Dichlorophenol	mg/kg (ppm)	0.33	98	97	57-118	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	94	94	56-112	0
Hexachlorobutadiene	mg/kg (ppm)	0.33	93	95	60-116	2
4-Chloroaniline	mg/kg (ppm)	0.66	55	55	10-126	0
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	99	103	59-115	4
2-Methylnaphthalene	mg/kg (ppm)	0.33	98	100	60-115	2
1-Methylnaphthalene	mg/kg (ppm)	0.33	99	100	70-130	1
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	101	105	41-107	4
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	94	96	47-119	2
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	98	100	61-121	2
2-Chloronaphthalene	mg/kg (ppm)	0.33	93	93	58-114	0
2-Nitroaniline	mg/kg (ppm)	0.33	98	102	55-119	4
Dimethyl phthalate	mg/kg (ppm)	0.33	102	105	58-116	3
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	103	106	57-119	3
3-Nitroaniline	mg/kg (ppm)	0.66	70	71	10-143	1
2,4-Dinitrophenol	mg/kg (ppm)	0.33	83	94	40-122	12
Dibenzofuran	mg/kg (ppm)	0.33	96	98	56-115	2
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	100	107	53-126	7
4-Nitrophenol	mg/kg (ppm)	0.33	77	88	40-124	13
Diethyl phthalate	mg/kg (ppm)	0.33	102	106	57-116	4
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	96	98	54-119	2
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	94	89	54-113	5
4-Nitroaniline	mg/kg (ppm)	0.66	73	83	47-109	13
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	87	90	55-147	3
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	99	95	56-116	4
Hexachlorobenzene	mg/kg (ppm)	0.33	100	97	57-115	3
Pentachlorophenol	mg/kg (ppm)	0.33	89	95	45-123	7
Carbazole	mg/kg (ppm)	0.33	86	88	57-116	2
Di-n-butyl phthalate	mg/kg (ppm)	0.33	98	104	56-118	6
Benzyl butyl phthalate	mg/kg (ppm)	0.33	104	101	56-122	3
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	100	104	56-155	4
Di-n-octyl phthalate	mg/kg (ppm)	0.33	91	96	58-120	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Project: Snopac 150054, F&BI 701333

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

Laboratory Code: 701377-16 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	87	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	88	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	91	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	88	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	88	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	95	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	90	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	94	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	90	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	90	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	86	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	81	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	81	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	77	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	90	91	58-121	1
Acenaphthylene	mg/kg (ppm)	0.17	89	90	54-121	1
Acenaphthene	mg/kg (ppm)	0.17	91	91	54-123	0
Fluorene	mg/kg (ppm)	0.17	93	94	56-127	1
Phenanthrene	mg/kg (ppm)	0.17	90	92	55-122	2
Anthracene	mg/kg (ppm)	0.17	85	88	50-120	3
Fluoranthene	mg/kg (ppm)	0.17	95	96	54-129	1
Pyrene	mg/kg (ppm)	0.17	92	91	53-127	1
Benz(a)anthracene	mg/kg (ppm)	0.17	94	95	51-115	1
Chrysene	mg/kg (ppm)	0.17	94	95	55-129	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	97	95	56-123	2
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	98	93	54-131	5
Benzo(a)pyrene	mg/kg (ppm)	0.17	83	84	51-118	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	75	80	49-148	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	76	81	50-141	6
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	74	78	52-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Project: Snopac 150054, F&BI 701333

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

Laboratory Code: 701300-05 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	86	44-129
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	86	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	85	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	87	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	86	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	91	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	94	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	82	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	85	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	86	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	87	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	79	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	77	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	82	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	78	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	87	91	58-121	4
Acenaphthylene	mg/kg (ppm)	0.17	84	89	54-121	6
Acenaphthene	mg/kg (ppm)	0.17	88	92	54-123	4
Fluorene	mg/kg (ppm)	0.17	90	93	56-127	3
Phenanthrene	mg/kg (ppm)	0.17	87	91	55-122	4
Anthracene	mg/kg (ppm)	0.17	94	97	50-120	3
Fluoranthene	mg/kg (ppm)	0.17	97	101	54-129	4
Pyrene	mg/kg (ppm)	0.17	83	84	53-127	1
Benz(a)anthracene	mg/kg (ppm)	0.17	87	88	51-115	1
Chrysene	mg/kg (ppm)	0.17	88	96	55-129	9
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	86	91	56-123	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	91	95	54-131	4
Benzo(a)pyrene	mg/kg (ppm)	0.17	80	83	51-118	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	77	84	49-148	9
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	79	89	50-141	12
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	78	86	52-131	10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 701300-15 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Phenol	mg/kg (ppm)	0.33	<0.5	94	50-150
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Chlorophenol	mg/kg (ppm)	0.33	<0.5	94	44-133
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	91	50-150
Benzyl alcohol	mg/kg (ppm)	0.33	<0.5	92	50-150
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	<0.05	92	50-150
2-Methylphenol	mg/kg (ppm)	0.33	<0.5	94	42-143
Hexachloroethane	mg/kg (ppm)	0.33	<0.05	92	31-132
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	<0.05	95	50-150
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	<1	92	10-250
Nitrobenzene	mg/kg (ppm)	0.33	<0.05	98	50-150
Iso phorone	mg/kg (ppm)	0.33	<0.05	96	50-150
2-Nitrophenol	mg/kg (ppm)	0.33	<0.5	109	29-152
2,4-Dimethylphenol	mg/kg (ppm)	0.33	<0.5	90	16-163
Benzoic acid	mg/kg (ppm)	0.5	<2.5	110	10-250
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	<0.05	94	50-150
2,4-Dichlorophenol	mg/kg (ppm)	0.33	<0.5	96	39-145
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	<0.05	93	50-150
Hexachlorobutadiene	mg/kg (ppm)	0.33	<0.05	93	50-150
4-Chloroaniline	mg/kg (ppm)	0.66	<5	71	23-110
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	<0.5	100	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	95	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	95	50-150
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	<0.15	105	10-151
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	99	38-149
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	100	50-150
2-Chloronaphthalene	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Nitroaniline	mg/kg (ppm)	0.33	<0.25	102	50-150
Dimethyl phthalate	mg/kg (ppm)	0.33	<0.5	101	50-150
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	107	50-150
3-Nitroaniline	mg/kg (ppm)	0.66	<5	83	23-119
2,4-Dinitrophenol	mg/kg (ppm)	0.33	<1.5	109	10-162
Dibenzo furan	mg/kg (ppm)	0.33	<0.05	95	47-149
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	107	50-150
4-Nitrophenol	mg/kg (ppm)	0.33	<1.5	91	10-179
Diethyl phthalate	mg/kg (ppm)	0.33	<0.5	102	50-150
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	94	50-150
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	<0.05	98	50-150
4-Nitroaniline	mg/kg (ppm)	0.66	<5	103	32-135
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	<1.5	111	10-170
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	97	50-150
Hexachlorobenzene	mg/kg (ppm)	0.33	<0.05	97	50-150
Pentachlorophenol	mg/kg (ppm)	0.33	<0.5	103	12-160
Carbazole	mg/kg (ppm)	0.33	<0.5	103	50-150
Di-n-butyl phthalate	mg/kg (ppm)	0.33	<0.5	102	50-150
Benzyl butyl phthalate	mg/kg (ppm)	0.33	<0.5	104	50-150
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	<0.8	103	10-250
Di-n-octyl phthalate	mg/kg (ppm)	0.33	<0.5	99	54-161

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/27/17

Project: Snopac 150054, F&BI 701333

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	mg/kg (ppm)	0.33	99	98	51-119	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	97	93	60-112	4
2-Chlorophenol	mg/kg (ppm)	0.33	97	94	59-114	3
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	94	86	62-113	9
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	94	87	61-114	8
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	94	88	61-113	7
Benzyl alcohol	mg/kg (ppm)	0.33	101	100	50-119	1
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	98	93	59-113	5
2-Methylphenol	mg/kg (ppm)	0.33	96	94	58-115	2
Hexachloroethane	mg/kg (ppm)	0.33	95	88	63-114	8
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	103	103	62-114	0
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	98	97	54-120	1
Nitrobenzene	mg/kg (ppm)	0.33	103	100	59-114	3
Ispophorone	mg/kg (ppm)	0.33	103	104	61-113	1
2-Nitrophenol	mg/kg (ppm)	0.33	116 vo	113	59-114	3
2,4-Dimethylphenol	mg/kg (ppm)	0.33	77	66	54-107	15
Benzoic acid	mg/kg (ppm)	0.5	118	113	43-150	4
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	100	99	60-114	1
2,4-Dichlorophenol	mg/kg (ppm)	0.33	102	103	57-118	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	97	93	56-112	4
Hexachlorobutadiene	mg/kg (ppm)	0.33	97	92	60-116	5
4-Chloroaniline	mg/kg (ppm)	0.66	41	46	10-126	11
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	102	100	59-115	2
2-Methylnaphthalene	mg/kg (ppm)	0.33	98	97	60-115	1
1-Methylnaphthalene	mg/kg (ppm)	0.33	100	98	70-130	2
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	129 vo	125 vo	41-107	3
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	106	105	47-119	1
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	105	105	61-121	0
2-Chloronaphthalene	mg/kg (ppm)	0.33	99	99	58-114	0
2-Nitroaniline	mg/kg (ppm)	0.33	112	109	55-119	3
Dimethyl phthalate	mg/kg (ppm)	0.33	107	104	58-116	3
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	115	112	57-119	3
3-Nitroaniline	mg/kg (ppm)	0.66	83	82	10-143	1
2,4-Dinitrophenol	mg/kg (ppm)	0.33	120	111	40-122	8
Dibenzofuran	mg/kg (ppm)	0.33	100	98	56-115	2
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	113	110	53-126	3
4-Nitrophenol	mg/kg (ppm)	0.33	97	90	40-124	7
Diethyl phthalate	mg/kg (ppm)	0.33	106	102	57-116	4
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	98	97	54-119	1
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	97	98	54-113	1
4-Nitroaniline	mg/kg (ppm)	0.66	99	93	47-109	6
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	124	121	55-147	2
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	104	104	56-116	0
Hexachlorobenzene	mg/kg (ppm)	0.33	103	104	57-115	1
Pentachlorophenol	mg/kg (ppm)	0.33	106	104	45-123	2
Carbazole	mg/kg (ppm)	0.33	97	100	57-116	3
Di-n-butyl phthalate	mg/kg (ppm)	0.33	103	102	56-118	1
Benzyl butyl phthalate	mg/kg (ppm)	0.33	111	109	56-122	2
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	103	101	56-155	2
Di-n-octyl phthalate	mg/kg (ppm)	0.33	99	96	58-120	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/27/17

Project: Snopac 150054, F&BI 701333

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 701300-18 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	81	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	75	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	82	77	55-130	6
Aroclor 1260	mg/kg (ppm)	0.8	81	79	58-133	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/27/17

Project: Snopac 150054, F&BI 701333

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 702015-01 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	88	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	83	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	84	81	55-130	4
Aroclor 1260	mg/kg (ppm)	0.8	83	82	58-133	1

# FRIEDMAN & BRUYA, INC.

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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.
- 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.



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**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 701333**  
**Work Order Number: 1701344**

February 03, 2017

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 7 sample(s) on 1/30/2017 for the analyses presented in the following report.

***Sample Moisture (Percent Moisture)***  
***Total Organic Carbon by EPA 9060***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink that reads "Mike Ridgeway".

Mike Ridgeway  
Laboratory Director



Date: 02/03/2017

**CLIENT:** Friedman & Bruya  
**Project:** 701333  
**Work Order:** 1701344

### Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1701344-001	MW7-10-11	01/26/2017 9:10 AM	01/30/2017 10:23 AM
1701344-002	MW7-17-18	01/26/2017 9:20 AM	01/30/2017 10:23 AM
1701344-003	MW12-17.5-18.5	01/26/2017 10:30 AM	01/30/2017 10:23 AM
1701344-004	MW12-11-12	01/26/2017 10:25 AM	01/30/2017 10:23 AM
1701344-005	MW6-7-8	01/26/2017 11:45 AM	01/30/2017 10:23 AM
1701344-006	MW6-15-16	01/26/2017 12:20 PM	01/30/2017 10:23 AM
1701344-007	MW11-10-11	01/26/2017 2:05 PM	01/30/2017 10:23 AM

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**CLIENT:** Friedman & Bruya  
**Project:** 701333

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 1701344

Date Reported: 2/3/2017

**CLIENT:** Friedman & Bruya

**Project:** 701333

**Lab ID:** 1701344-001

**Collection Date:** 1/26/2017 9:10:00 AM

**Client Sample ID:** MW7-10-11

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	18.1	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	ND	0.0500		%-dry	1	2/2/2017 12:59:47 PM

**Lab ID:** 1701344-002

**Collection Date:** 1/26/2017 9:20:00 AM

**Client Sample ID:** MW7-17-18

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	22.0	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	ND	0.0500		%-dry	1	2/2/2017 1:44:08 PM

**Lab ID:** 1701344-003

**Collection Date:** 1/26/2017 10:30:00 AM

**Client Sample ID:** MW12-17.5-18.5

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	19.6	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	0.0644	0.0500		%-dry	1	2/2/2017 1:55:22 PM

Original

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## Analytical Report

Work Order: 1701344  
Date Reported: 2/3/2017

**CLIENT:** Friedman & Bruya  
**Project:** 701333

**Lab ID:** 1701344-004      **Collection Date:** 1/26/2017 10:25:00 AM  
**Client Sample ID:** MW12-11-12      **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	35.4	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	1.40	0.0500		%-dry	1	2/2/2017 2:22:11 PM

**Lab ID:** 1701344-005      **Collection Date:** 1/26/2017 11:45:00 AM  
**Client Sample ID:** MW6-7-8      **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	16.5	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	ND	0.0500		%-dry	1	2/2/2017 2:31:21 PM



## Analytical Report

Work Order: 1701344

Date Reported: 2/3/2017

**CLIENT:** Friedman & Bruya

**Project:** 701333

**Lab ID:** 1701344-006

**Collection Date:** 1/26/2017 12:20:00 PM

**Client Sample ID:** MW6-15-16

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	17.9	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	0.780	0.0500		%-dry	1	2/2/2017 2:45:33 PM

**Lab ID:** 1701344-007

**Collection Date:** 1/26/2017 2:05:00 PM

**Client Sample ID:** MW11-10-11

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b><u>Sample Moisture (Percent Moisture)</u></b>						
Percent Moisture	8.82	0.500		wt%	1	2/1/2017 12:14:33 PM
<b><u>Total Organic Carbon by EPA 9060</u></b>						
Total Organic Carbon	1.67	0.0500		%-dry	1	2/2/2017 3:01:36 PM



Date: 2/3/2017

Work Order: 1701344

CLIENT: Friedman & Bruya

Project: 701333

## QC SUMMARY REPORT

### Sample Moisture (Percent Moisture)

Sample ID	1701333-003ADUP	SampType:	DUP	Units:	wt%	Prep Date:	2/1/2017	RunNo:	34203
Client ID:	BATCH	Batch ID:	R34203			Analysis Date:	2/1/2017	SeqNo:	651793
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Percent Moisture		11.0	0.500				12.59	13.2	20



Date: 2/3/2017

Work Order: 1701344  
CLIENT: Friedman & Bruya  
Project: 701333

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA 9060**

Sample ID	MB-16122	SampType:	MBLK	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MBLKS	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652507			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		ND	0.0500									

Sample ID	LCS-16122	SampType:	LCS	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	LCSS	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652508			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		0.657	0.0500	0.6510	0	101	41.1	157				

Sample ID	1701283-001ADUP	SampType:	DUP	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	BATCH	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652510			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		1.71	0.0500					1.224		33.2	30	R

**NOTES:**

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1701283-001AMS	SampType:	MS	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	BATCH	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652511			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		2.26	0.0500	1.000	1.224	103	50.2	118				

Sample ID	1701283-001AMSD	SampType:	MSD	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	BATCH	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652512			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		2.18	0.0500	1.000	1.224	95.9	50.2	118	2.255	3.24	20	



Date: 2/3/2017

Work Order: 1701344

CLIENT: Friedman & Bruya

Project: 701333

## QC SUMMARY REPORT

### Total Organic Carbon by EPA 9060

Sample ID	1701344-001ADUP	SampType:	DUP	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MW7-10-11 <th>Batch ID:</th> <td>16122</td> <th></th> <th></th> <th>Analysis Date:</th> <td>2/2/2017</td> <th>SeqNo:</th> <td>652525</td>	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652525			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		ND	0.0500				0			0	30	
Sample ID	1701344-001AMS	SampType:	MS	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MW7-10-11 <th>Batch ID:</th> <td>16122</td> <th></th> <th></th> <th>Analysis Date:</th> <td>2/2/2017</td> <th>SeqNo:</th> <td>652526</td>	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652526			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		1.05	0.0500	1.000	0	105	50.2	118				



## Sample Log-In Check List

Client Name: FB

Work Order Number: 1701344

Logged by: Erica Silva

Date Received: 1/30/2017 10:23:00 AM

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
2. How was the sample delivered? Courier

### Log In

3. Coolers are present? Yes  No  NA   
4. Shipping container/cooler in good condition? Yes  No   
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required   
6. Was an attempt made to cool the samples? Yes  No  NA   
7. Were all items received at a temperature of >0°C to 10.0°C\* Yes  No  NA   
8. Sample(s) in proper container(s)? Yes  No   
9. Sufficient sample volume for indicated test(s)? Yes  No   
10. Are samples properly preserved? Yes  No   
11. Was preservative added to bottles? Yes  No  NA   
12. Is there headspace in the VOA vials? Yes  No  NA   
13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
14. Does paperwork match bottle labels? Yes  No   
15. Are matrices correctly identified on Chain of Custody? Yes  No   
16. Is it clear what analyses were requested? Yes  No   
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler	3.9
Sample	5.3

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company \_\_\_\_\_ Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 2885-8282 Fax # (206) 283-504

SUBCONTRACTER	
<i>Fremont</i>	
PROJECT NAME/NO.	PO #
701333	E-474
REMARKS	
Please Email Results	

TURNAROUND TIME	<b>Standard (2 Weeks) <i>Next</i></b>
<input type="checkbox"/> Standard (2 Weeks) <i>Next</i>	
<input type="checkbox"/> RUSH	
Rush charges authorized by: _____	
<hr/>	
<b>SAMPLE DISPOSAL</b>	
<input type="checkbox"/> Dispose after 30 days	
<input type="checkbox"/> Return samples	
<input type="checkbox"/> Will call with instructions	

*Friedman & Bruya, Inc.*

*Seattle, WA 98119-2029*

Ph. (206) 285-8282

*Fax (206) 283-5044*

701333

## SAMPLE CHAIN OF CUSTODY ME 01-27-17 BT4/VB3

Report To Kris Longley  
 Company Aspect Consulting  
 Address Klongkue Aspects consulting, LLC  
 City, State, ZIP Seattle, WA  
 Phone 7008124744 Email

SAMPLERS (Signature)	Unl Underller	PO #	Page #
PROJECT NAME	Snapc 150054	INVOICE TO [REDACTED]	TURNAROUND TIME <input checked="" type="checkbox"/> Standard Turnaround <input type="checkbox"/> RUSH Rush charges authorized by: _____
REMARKS * Hold additional jars pending analysis.	[REDACTED] [REDACTED]	SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Archive Samples <input checked="" type="checkbox"/> Other [REDACTED]	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED						Notes	
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	
MW7-3-4	01 A-F	1/26/17	905	S	6			X		X			HOLD
MW7-13-14	02 T	1/26	915		6								HOLD
MW7-10-11	03		910		6								*
MW7-17-18	04		920		6								HOLD
MW12-2-3	05		1015		6								HOLD
MW12-6-7	06		1020		6								HOLD
MW12-17.5-18.5	07		1030		6								3*
MW12-11-12	08		1035		6								HOLD
MW16-SBQ-5.2-5A	09		7	Small part	1								HOLD
MW16-7-8	10 R-P	1	1415	S	6	X		X	X	X	X		*

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

Released by:	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>J. S. L.</i>	<i>Kris Longley</i>	<i>Aspect Consulting</i>	<i>Feder</i>	<i>1/27/17</i>	<i>9:30</i>
Received by:					
Relinquished by:					
Received by:					

Received by: *Dave*

Received by: *Dave*

701333

Report To AVSI (Longley)

Company Aspect Consulting

Address Kingsgate asset consulting inc

City State ZIP

Phone 704-243-4151

## SAMPLE CHAIN OF CUSTODY

HE 01-27-17

B24 / Vsp3

Report To <u>Elvi Longley</u>	
Company <u>Aspect Consulting</u>	Address <u>Klondike Aspect Consulting, Inc.</u>
City, State, ZIP <u>Seattle WA 98103</u>	
Phone <u>206-812-4444</u> Email <u></u>	
PROJECT NAME <u>SnSpace</u>	
PO# <u>150004</u>	
REMARKS <u>* hold additional jars pending analysis</u>	
INVOICE TO <u>Elvi Longley</u>	
SAMPLE DISPOSAL	
<input type="checkbox"/> Dispose after 30 days	
<input checked="" type="checkbox"/> Archive Samples	
<input checked="" type="checkbox"/> Other <u>Call Elvi</u>	
Page # <u>2</u> of <u>2</u>	
TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard Turnaround	
<input type="checkbox"/> DRUSH	
Rush charges authorized by:	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED	
MW10-589-2-2.5	11	12617	?	Sandpit soil	2	TPH-HCID	+ Zn
MW10-15-16	12 A-F	1220	5:1	6	X	TPH-Diesel	
MW10-18-19	13 T	1225		6	X	TPH-Gasoline	✓ HCl
MW11-10-11	14	1405		6	X	BTEX by 8260B	✓ HCl
MW11-15-16	15	1400	1	6	X	VOCs by 8260C	
					X	SVOCs by 8270D	
					X	PAHs 8270D SIM	
					X	TOC	✓
					X	TBT	
					X	PCBs	
					X	PCPAs	
					X	PCPs	
					X	HCl for most	
					X	HCl for soil	
					X	HCl	
					X	HOD	
					X	HOD	
					*		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Requ ested by: <i>R. S.</i>	Mrs Longley	Agent Publishing	1-27-17	9:30
Received by: <i>R. S.</i>	and Underdown	Fedex	1-27-17	11:13 AM
Relinquished by:				
Received by: <i>R. S.</i>	CDR WD	FBP	1-27-17	12:15

# 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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 9, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 30, 2017 from the Snopac 150054, F&BI 701359 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0209R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on January 30, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 701359 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
701359 -01	B14-0.8-1.6
701359 -02	B14-6-7
701359 -03	B14-10.5-11.5
701359 -04	B14-17.5-18.5
701359 -05	B14-12.3-12.6
701359 -06	B15-2-2.5
701359 -07	B15-11-12
701359 -08	B15-16-17
701359 -09	B15-18.5-19
701359 -10	B16-2.5-3
701359 -11	B16-5.5-6
701359 -12	B16-12-12.5
701359 -13	B16-18-18.5
701359 -14	B17-0.9-1.1
701359 -15	B17-10.5-11
701359 -16	B17-12.5-13
701359 -17	B17-18-18.5
701359 -18	B18-1.1-1.8
701359 -19	B18-6-6.5
701359 -20	B18-11-11.5
701359 -21	B18-16-16.5
701359 -22	B19-6.5-7
701359 -23	B19-11-12
701359 -24	B19-12-13
701359 -25	B19-17.5-18
701359 -26	B20-1.5-2
701359 -27	B20-7-7.5
701359 -28	B20-10.5-11
701359 -29	B20-16.5-17

The 8260C calibration standard for several compounds did not pass the acceptance criteria. The data were flagged accordingly. In addition, the matrix spike, matrix spike duplicate and relative percent difference for several compounds exceeded the acceptance criteria. The laboratory control sample met the acceptance criteria, therefore the results were likely due to matrix effect.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/30/17

Project: Snopac 150054, F&BI 701359

Date Extracted: 02/01/17

Date Analyzed: 02/01/17

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 48-168)
B15-11-12 701359-07	<50	<250	128
B15-16-17 701359-08	<50	<250	123
B19-12-13 701359-24	<50	<250	126
Method Blank 07-231 MB	<50	<250	125

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: B15-11-12  
 Client: Aspect Consulting, LLC  
 Date Received: 01/30/17 Project: Snopac 150054, F&BI 701359  
 Date Extracted: 01/31/17 Lab ID: 701359-07  
 Date Analyzed: 01/31/17 Data File: 013127.D  
 Matrix: Soil Instrument: GCMS9  
 Units: mg/kg (ppm) Dry Weight Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	94	64	137
4-Bromofluorobenzene	97	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5 ca	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5 ca	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 ca	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B15-16-17	Client:	Aspect Consulting, LLC
Date Received:	01/30/17	Project:	Snopac 150054, F&BI 701359
Date Extracted:	01/31/17	Lab ID:	701359-08
Date Analyzed:	01/31/17	Data File:	013128.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	89	113
Toluene-d8	94	64	137
4-Bromofluorobenzene	97	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5 ca	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5 ca	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 ca	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B19-12-13	Client:	Aspect Consulting, LLC
Date Received:	01/30/17	Project:	Snopac 150054, F&BI 701359
Date Extracted:	01/31/17	Lab ID:	701359-24
Date Analyzed:	01/31/17	Data File:	013129.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	93	64	137
4-Bromofluorobenzene	95	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5 ca	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5 ca	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 ca	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 701359
Date Extracted:	01/31/17	Lab ID:	07-0185 mb
Date Analyzed:	01/31/17	Data File:	013105.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	93	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 ca	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/30/17

Project: Snopac 150054, F&BI 701359

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

Laboratory Code: 701359-08 (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	110	112	73-135	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	112	74-139

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/30/17

Project: Snopac 150054, F&BI 701359

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

Laboratory Code: 701359-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	3 vo	2 vo	10-56	40 vo
Chloromethane	mg/kg (ppm)	2.5	<0.5	20	17	10-90	16
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	16	12	10-91	29 vo
Bromomethane	mg/kg (ppm)	2.5	<0.5	24	20	10-110	18
Chloroethane	mg/kg (ppm)	2.5	<0.5	22	18	10-101	20
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	12	9 vo	10-95	29 vo
Acetone	mg/kg (ppm)	12.5	<0.5	51	47	11-141	8
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	23	18	11-103	24 vo
Hexane	mg/kg (ppm)	2.5	<0.25	5 vo	3 vo	10-95	50 vo
Methylene chloride	mg/kg (ppm)	2.5	<0.5	42	35	14-128	18
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	53	50	17-134	6
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	36	30	13-112	18
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	42	35	23-115	18
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	32	26	18-117	21 vo
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	46	40	25-120	14
Chloroform	mg/kg (ppm)	2.5	<0.05	45	40	29-117	12
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	53	51	20-133	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	45	41	22-124	9
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	35	28	27-112	22 vo
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	31	25 vo	26-107	21 vo
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	30	24	22-115	22 vo
Benzene	mg/kg (ppm)	2.5	<0.03	42	36	26-114	15
Trichloroethene	mg/kg (ppm)	2.5	<0.02	39	31	30-112	23 vo
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	52	45	31-119	14
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	50	42	31-131	17
Dibromomethane	mg/kg (ppm)	2.5	<0.05	49	44	27-124	11
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	60	55	16-147	9
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	47	40	28-137	16
Toluene	mg/kg (ppm)	2.5	<0.05	48	39	34-112	21 vo
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	52	46	30-136	12
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	61	55	32-126	10
2-Hexanone	mg/kg (ppm)	12.5	<0.5	63	57	17-147	10
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	56	49	29-125	13
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	36	27	25-114	29 vo
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	60	52	32-143	14
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	54	47	32-126	14
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	49	40	37-113	20
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	44	34	34-115	26 vo
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	54	45	35-126	18
m,p-Xylene	mg/kg (ppm)	5	<0.1	42	32	25-125	27 vo
o-Xylene	mg/kg (ppm)	2.5	<0.05	45	36	27-126	22 vo
Styrene	mg/kg (ppm)	2.5	<0.05	41	33 vo	39-121	22 vo
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	42	32 vo	34-123	27 vo
Bromoform	mg/kg (ppm)	2.5	<0.05	56	47	18-155	17
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	39	28 vo	31-120	33 vo
Bromobenzene	mg/kg (ppm)	2.5	<0.05	50	39 vo	40-115	25 vo
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	38	27	24-130	34 vo
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	62	51	27-148	19
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	57	49	33-123	15
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	42	32 vo	39-110	27 vo
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	42	32 vo	39-111	27 vo
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	44	31 vo	36-116	35 vo
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	38	28 vo	35-116	30 vo
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	38	27 vo	33-118	34 vo
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	36	26 vo	32-119	32 vo
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	44	32 vo	38-111	32 vo
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	43	31 vo	39-109	32 vo
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	49	38 vo	40-111	25 vo
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	51	41	37-122	22 vo
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	38	25 vo	31-121	41 vo
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	34	20 vo	24-128	52 vo
Naphthalene	mg/kg (ppm)	2.5	<0.05	48	35	24-139	31 vo
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	42	28 vo	35-117	40 vo

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/30/17

Project: Snopac 150054, F&BI 701359

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	40	10-76
Chloromethane	mg/kg (ppm)	2.5	62	34-98
Vinyl chloride	mg/kg (ppm)	2.5	67	42-107
Bromomethane	mg/kg (ppm)	2.5	67	46-113
Chloroethane	mg/kg (ppm)	2.5	67	47-115
Trichlorofluoromethane	mg/kg (ppm)	2.5	71	53-112
Acetone	mg/kg (ppm)	12.5	83	39-147
1,1-Dichloroethene	mg/kg (ppm)	2.5	81	65-110
Hexane	mg/kg (ppm)	2.5	78	55-107
Methylene chloride	mg/kg (ppm)	2.5	76	50-127
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	87	72-122
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	90	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	89	74-109
2,2-Dichloropropane	mg/kg (ppm)	2.5	77	64-151
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	73-110
Chloroform	mg/kg (ppm)	2.5	85	76-110
2-Butanone (MEK)	mg/kg (ppm)	12.5	89	60-121
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	83	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	84	72-116
1,1-Dichloropropene	mg/kg (ppm)	2.5	87	72-112
Carbon tetrachloride	mg/kg (ppm)	2.5	86	67-123
Benzene	mg/kg (ppm)	2.5	89	72-106
Trichloroethene	mg/kg (ppm)	2.5	89	72-107
1,2-Dichloropropane	mg/kg (ppm)	2.5	100	74-115
Bromodichloromethane	mg/kg (ppm)	2.5	90	75-126
Dibromomethane	mg/kg (ppm)	2.5	88	76-116
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	98	80-128
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	96	71-138
Toluene	mg/kg (ppm)	2.5	100	74-111
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	104	77-135
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	105	77-116
2-Hexanone	mg/kg (ppm)	12.5	102	70-129
1,3-Dichloropropane	mg/kg (ppm)	2.5	99	75-115
Tetrachloroethene	mg/kg (ppm)	2.5	102	73-111
Dibromochemicalmethane	mg/kg (ppm)	2.5	110	64-152
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	101	77-117
Chlorobenzene	mg/kg (ppm)	2.5	102	76-109
Ethylbenzene	mg/kg (ppm)	2.5	98	75-112
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	99	76-125
m,p-Xylene	mg/kg (ppm)	5	99	77-115
o-Xylene	mg/kg (ppm)	2.5	100	76-115
Styrene	mg/kg (ppm)	2.5	108	76-119
Isopropylbenzene	mg/kg (ppm)	2.5	100	76-120
Bromoform	mg/kg (ppm)	2.5	106	50-174
n-Propylbenzene	mg/kg (ppm)	2.5	99	77-115
Bromobenzene	mg/kg (ppm)	2.5	101	76-112
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	100	77-121
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	103	74-121
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	96	74-116
2-Chlorotoluene	mg/kg (ppm)	2.5	98	75-113
4-Chlorotoluene	mg/kg (ppm)	2.5	100	77-115
tert-Butylbenzene	mg/kg (ppm)	2.5	100	77-123
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	100	77-119
sec-Butylbenzene	mg/kg (ppm)	2.5	101	78-120
p-Isopropyltoluene	mg/kg (ppm)	2.5	103	77-120
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	101	76-112
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	98	74-109
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	103	75-114
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	95	68-122
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	102	75-122
Hexachlorobutadiene	mg/kg (ppm)	2.5	106	74-130
Naphthalene	mg/kg (ppm)	2.5	104	73-122
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	103	75-117

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

701359

Report To

Company AspectAddress 401 2nd Ave. S Ste 201City, State, ZIP Seattle, WAPhone 206.474.6100 Email lkoover@aspectusa.com

## SAMPLE CHAIN OF CUSTODY ME 01/30/17

Page # 1 of \_\_\_\_\_

TURNAROUND TIME

 Standard Turnaround RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

 Dispose after 30 days Archive Samples Other Not First

ANALYSES REQUESTED						
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	Notes
B14-0.8-1.6	01	1/27/17	0845	Sandbar Crest	1	
B14-6-7	02			Soil	1	
B14-10.5-11.5	03			0910	1	
B14-17.5-18.5	04			0915	1	
B14-12.3-12.6	05			0920	1	
B15-2-2.5	06			0950	1	
B15-11-12	07A-F			0955	6	X X
B15-16-17	08			1000	6	X X
B15-18.5-19	09			1005	1	
B16-2.5-3	10			1025	1	(ST)

SIGNATURE		PRINT NAME	Samples received	COMPANY	DATE	TIME
Relinquished by:		E. Koover	Aspect		1/30/17	
Received by:	<u>K. Dierckx</u>	Aspect (SBC)	By 1/30/17	1540		
Relinquished by:		F&B	Hand Pending Analysis Results			
Received by:	<u>D. Dierckx</u>	F&B	Hand Pending Analysis Results			

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

701359

## SAMPLE CHAIN OF CUSTODY ME 01/30/17 US/Hwy 3

Report To \_\_\_\_\_

Company Aspect

Address \_\_\_\_\_

City, State, ZIP \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

SAMPLERS (Signature)		PROJECT NAME <u>Aspect</u> 150054		PO #	TURNAROUND TIME
REMARKS		INVOICE TO		SAMPLE DISPOSAL	
				<input type="checkbox"/> Standard Turnaround	<input type="checkbox"/> Rush charges authorized by:
				<input type="checkbox"/> Dispose after 30 days	<input type="checkbox"/> Archive Samples
				<input type="checkbox"/> Other <u>Cust</u> <u>First</u>	

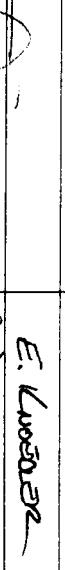
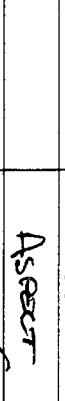
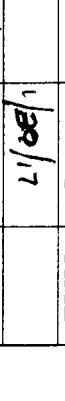
ANALYSES REQUESTED						
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	Notes
B16-5.5-6	11	1/27/17	1030	SBR	1	
B16-12-12.5	12		1035		1	
B16-18-18.5	13		1040		1	
B17-0.9-1.1	14			Sandbar GSR	1	
B17-10.5-11	15			SBR	1	
B17-12.5-13	16			SBR	1	
B17-18-18.5	17			SBR	1	
B18-1.1-1.8	18-A8			Sandbar GSR	2	
B18-6.0-6.5	19		1140	SBR	1	
B18-11-11.5	20		1145	SBR	1	
				<b>Samples received at</b>	<b>3</b>	<b>C</b>

Friedman &amp; Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Relinquished by: 	PRINT NAME <u>E. Kuehne</u>	COMPANY <u>Aspect</u>	DATE 1/20/17	TIME
Received by: 	PRINT NAME <u>R. Duvena</u>	COMPANY <u>FedEx (SDC)</u>	DATE 1/20/17	TIME 1544
Relinquished by: 	PRINT NAME	COMPANY	DATE 1-24-17	TIME 16:10
Received by: 	PRINT NAME	COMPANY	DATE 1-24-17	TIME 16:10

701352

SAMPLE CHAIN OF CUSTODY

SAMPLERS (signature)

Report To \_\_\_\_\_

Company Aspect  
Address \_\_\_\_\_

City, State, ZIP \_\_\_\_\_  
Phone \_\_\_\_\_ Email \_\_\_\_\_

PROJECT NAME		SAMPLERS <i>(signature)</i>
SnoPAC 150054		PO #
REMARKS		INVOICE TO

<b>TURNAROUND TIME</b>	
<input checked="" type="checkbox"/> Standard Turnaround	<input type="checkbox"/> RUSH
Rush charges authorized by: _____	
<b>SAMPLE DISPOSAL</b>	
<input type="checkbox"/> Dispose after 30 days	<input type="checkbox"/> Archive Samples
<del>Other <i>Cat 1</i> <i>FSSR</i></del>	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED	
						TPH-HCID	TPH-Diesel
B18-110-16.5	21	1/27/17	1150	Sent	1		
B19-60.5-7	23		1315		1		
B19-11-12	23A-F		1305		6		
B19-12-13	24	L	1310		6	X	
B19-17.5-18	25		1320		1	X	
R20-7-15	26		1220		1		
R20-10-5-14	27		1225		1		
B20-10-5-14	28		1230		1		
B20-16.5-17	29		1235		1		

Friedman & Bruya, Inc.

3012 16<sup>th</sup> Avenue West  
Seattle, WA 98119-2029

Ph. (206) 285-8282

# 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.

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[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 9, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 24, 2017 from the Snopac, PO 150054, F&BI 701260 project. There are 43 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0209R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 24, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac, PO 150054, F&BI 701260 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
701260 -01	MW1-10-10.5
701260 -02	MW1-15-16
701260 -03	MW2-10
701260 -04	MW2-5-6
701260 -05	MW2-15-16
701260 -06	MW2-10-11
701260 -07	MW3-1-2
701260 -08	MW3-5.5-6
701260 -09	MW3-10-12
701260 -10	MW3-16-17
701260 -11	MW4-0-1
701260 -12	MW4-7-8
701260 -13	MW4-12.5-13.5
701260 -14	MW3-Wood-1

Samples MW1-10-10.5, MW1-15-16, MW2-10, MW2-5-6, MW2-10-11, MW3-1-2, MW3-5.5-6, MW3-10-12, MW4-7-8, and MW4-12.5-13.5 were sent to Fremont Analytical for total organic carbon analysis. The report is enclosed.

The 8260C bromobenzene laboratory control sample exceeded the acceptance criteria. This analyte was not detected in the samples, therefore the data were acceptable.

Several compounds in the 8270D laboratory control sample and laboratory control sample duplicate as well as the relative percent difference exceeded the acceptance criteria. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

Date Extracted: 01/25/17

Date Analyzed: 01/25/17

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 48-168)
MW1-10-10.5 701260-01	<50	510	115
MW1-15-16 701260-02	<50	<250	99
MW2-10 701260-03	2,100	6,600	103
MW2-5-6 701260-04	<50	<250	103
MW2-10-11 701260-06	500	2,000	99
MW3-1-2 701260-07	69 x	410	112
MW3-5.5-6 701260-08	750	700	119
MW3-10-12 701260-09	<50	<250	113
MW4-7-8 701260-12	<50	<250	112
MW4-12.5-13.5 701260-13	<50	<250	112
Method Blank 07-165 MB	<50	<250	101

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW1-10-10.5	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-01
Date Analyzed:	01/26/17	Data File:	701260-01.082
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	61.6
Barium	18.1
Cadmium	<1
Chromium	10.9
Copper	58.6
Lead	54.4
Mercury	<1
Nickel	11.4
Selenium	<1
Silver	<1
Zinc	179

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW1-15-16	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-02
Date Analyzed:	01/26/17	Data File:	701260-02.083
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.77
Barium	12.2
Cadmium	<1
Chromium	9.35
Copper	12.0
Lead	6.50
Mercury	<1
Nickel	6.43
Selenium	<1
Silver	<1
Zinc	32.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW2-10	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-03
Date Analyzed:	01/26/17	Data File:	701260-03.084
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	63.7
Barium	72.7
Cadmium	<1
Chromium	18.5
Copper	173
Lead	119
Mercury	<1
Nickel	52.1
Selenium	<1
Silver	<1
Zinc	306

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW2-5-6	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-04
Date Analyzed:	01/26/17	Data File:	701260-04.085
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	95.7
Barium	29.1
Cadmium	<1
Chromium	13.8
Copper	137
Lead	58.8
Mercury	<1
Nickel	13.9
Selenium	<1
Silver	<1
Zinc	228

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW2-10-11	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-06
Date Analyzed:	01/26/17	Data File:	701260-06.086
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	42.2
Barium	63.0
Cadmium	<1
Chromium	27.2
Copper	137
Lead	143
Mercury	<1
Nickel	49.8
Selenium	<1
Silver	<1
Zinc	432

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW3-1-2	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-07
Date Analyzed:	01/26/17	Data File:	701260-07.087
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	73.0
Barium	25.2
Cadmium	<1
Chromium	30.2
Copper	91.9
Lead	64.3
Mercury	<1
Nickel	23.4
Selenium	<1
Silver	<1
Zinc	189

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW3-5.5-6	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-08
Date Analyzed:	01/26/17	Data File:	701260-08.088
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	22.9
Barium	17.5
Cadmium	<1
Chromium	12.1
Copper	56.9
Lead	33.4
Mercury	<1
Nickel	16.7
Selenium	<1
Silver	<1
Zinc	94.9

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW3-10-12	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-09
Date Analyzed:	01/26/17	Data File:	701260-09.089
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.91
Barium	52.3
Cadmium	<1
Chromium	7.98
Copper	23.6
Lead	33.4
Mercury	<1
Nickel	6.48
Selenium	<1
Silver	<1
Zinc	27.5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW4-7-8	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-12
Date Analyzed:	01/26/17	Data File:	701260-12.096
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.09
Barium	19.1
Cadmium	<1
Chromium	7.32
Copper	47.8
Lead	31.1
Mercury	<1
Nickel	7.69
Selenium	<1
Silver	<1
Zinc	61.3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	MW4-12.5-13.5	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	701260-13
Date Analyzed:	01/26/17	Data File:	701260-13.097
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.52
Barium	11.1
Cadmium	<1
Chromium	9.22
Copper	19.9
Lead	3.17
Mercury	<1
Nickel	7.80
Selenium	<1
Silver	<1
Zinc	18.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/26/17	Lab ID:	I7-039 mb2
Date Analyzed:	01/26/17	Data File:	I7-039 mb2.081
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-1-2	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	701260-07
Date Analyzed:	01/25/17	Data File:	012512.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	95	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-5.5-6	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	701260-08
Date Analyzed:	01/25/17	Data File:	012513.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	93	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW4-12.5-13.5  
 Date Received: 01/24/17  
 Date Extracted: 01/25/17  
 Date Analyzed: 01/25/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701260  
 Lab ID: 701260-13  
 Data File: 012514.D  
 Instrument: GCMS9  
 Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	93	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	07-0142 mb2
Date Analyzed:	01/25/17	Data File:	012508.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	92	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW2-10	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	02/06/17	Lab ID:	701260-03 1/50
Date Analyzed:	02/06/17	Data File:	020620.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	169 d	31	163
Benzo(a)anthracene-d12	97 d	24	168

Compounds:	Concentration mg/kg (ppm)
------------	------------------------------

Naphthalene	0.19
Acenaphthylene	<0.1
Acenaphthene	0.11
Fluorene	0.14
Phenanthrene	0.33
Anthracene	<0.1
Fluoranthene	3.6
Pyrene	3.8
Benz(a)anthracene	0.79
Chrysene	0.38
Benzo(a)pyrene	0.55
Benzo(b)fluoranthene	0.79
Benzo(k)fluoranthene	0.22
Indeno(1,2,3-cd)pyrene	0.28
Dibenz(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	0.41

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW3-1-2	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	701260-07 1/50
Date Analyzed:	01/25/17	Data File:	012512.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	117 d	31	163
Benzo(a)anthracene-d12	105 d	24	168

Compounds:	Concentration mg/kg (ppm)
------------	------------------------------

Naphthalene	<0.1
Acenaphthylene	0.15
Acenaphthene	0.39
Fluorene	0.35
Phenanthrene	1.5
Anthracene	1.2
Fluoranthene	4.5
Pyrene	6.2
Benz(a)anthracene	3.0
Chrysene	12
Benzo(a)pyrene	4.2
Benzo(b)fluoranthene	7.3
Benzo(k)fluoranthene	2.5
Indeno(1,2,3-cd)pyrene	2.0
Dibenz(a,h)anthracene	0.59
Benzo(g,h,i)perylene	2.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW3-5.5-6	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	701260-08 1/50
Date Analyzed:	01/25/17	Data File:	012514.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	122 d	31	163
Benzo(a)anthracene-d12	141 d	24	168

Compounds:	Concentration mg/kg (ppm)
------------	------------------------------

Naphthalene	24 ve
Acenaphthylene	2.1
Acenaphthene	86 ve
Fluorene	62 ve
Phenanthrene	260 ve
Anthracene	120 ve
Fluoranthene	270 ve
Pyrene	260 ve
Benz(a)anthracene	80 ve
Chrysene	110 ve
Benzo(a)pyrene	40 ve
Benzo(b)fluoranthene	66 ve
Benzo(k)fluoranthene	20 ve
Indeno(1,2,3-cd)pyrene	13
Dibenz(a,h)anthracene	4.1
Benzo(g,h,i)perylene	12

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW3-5.5-6	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	701260-08 1/5000
Date Analyzed:	01/26/17	Data File:	012614.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	960 d	31	163
Benzo(a)anthracene-d12	190 d	24	168

Compounds:	Concentration mg/kg (ppm)
------------	------------------------------

Naphthalene	24
Acenaphthylene	<10
Acenaphthene	89
Fluorene	63
Phenanthrene	270
Anthracene	120
Fluoranthene	290
Pyrene	250
Benz(a)anthracene	73
Chrysene	110
Benzo(a)pyrene	40
Benzo(b)fluoranthene	65
Benzo(k)fluoranthene	19
Indeno(1,2,3-cd)pyrene	18
Dibenz(a,h)anthracene	<10
Benzo(g,h,i)perylene	19

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	07-163 mb 1/5
Date Analyzed:	01/25/17	Data File:	012506.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	94	31	163
Benzo(a)anthracene-d12	109	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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	02/06/17	Lab ID:	07-247 mb 1/5
Date Analyzed:	02/06/17	Data File:	020607.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	80	31	163
Benzo(a)anthracene-d12	94	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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW2-10  
 Date Received: 01/24/17  
 Date Extracted: 02/06/17  
 Date Analyzed: 02/06/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701260  
 Lab ID: 701260-03 1/50  
 Data File: 020619.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	103 d	56	115
Phenol-d6	97 d	54	113
Nitrobenzene-d5	97 d	31	164
2-Fluorobiphenyl	94 d	47	133
2,4,6-Tribromophenol	101 d	35	141
Terphenyl-d14	114 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	<0.5
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	<5
Hexachlorobutadiene	<0.5	Carbazole	<5
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	<0.5	Di-n-octyl phthalate	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW3-1-2  
 Date Received: 01/24/17  
 Date Extracted: 01/25/17  
 Date Analyzed: 01/25/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701260  
 Lab ID: 701260-07 1/50  
 Data File: 012510.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	114 d	56	115
Phenol-d6	115 d	54	113
Nitrobenzene-d5	121 d ca	31	164
2-Fluorobiphenyl	115 d	47	133
2,4,6-Tribromophenol	125 d ca	35	141
Terphenyl-d14	115 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	<0.5
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	<5
Hexachlorobutadiene	<0.5	Carbazole	<5
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	<0.5	Di-n-octyl phthalate	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW3-5.5-6  
 Date Received: 01/24/17  
 Date Extracted: 01/25/17  
 Date Analyzed: 01/25/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701260  
 Lab ID: 701260-08 1/50  
 Data File: 012512.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	113 d	56	115
Phenol-d6	113 d	54	113
Nitrobenzene-d5	118 d ca	31	164
2-Fluorobiphenyl	110 d	47	133
2,4,6-Tribromophenol	140 d ca	35	141
Terphenyl-d14	121 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	28
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	<5
Hexachlorobutadiene	<0.5	Carbazole	15
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	22	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	16	Di-n-octyl phthalate	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	01/25/17	Lab ID:	07-164 mb
Date Analyzed:	01/25/17	Data File:	012505.D
Matrix:	Soil	Instrument:	GCMS8
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	105	56	115
Phenol-d6	105	54	113
Nitrobenzene-d5	118 ca	31	164
2-Fluorobiphenyl	104	47	133
2,4,6-Tribromophenol	106 ca	35	141
Terphenyl-d14	116	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.1	Hexachlorocyclopentadiene	<0.03
Bis(2-chloroethyl) ether	<0.01	2,4,6-Trichlorophenol	<0.1
2-Chlorophenol	<0.1	2,4,5-Trichlorophenol	<0.1
1,3-Dichlorobenzene	<0.01	2-Chloronaphthalene	<0.01
1,4-Dichlorobenzene	<0.01	2-Nitroaniline	<0.05
1,2-Dichlorobenzene	<0.01	Dimethyl phthalate	<0.1
Benzyl alcohol	<0.1	2,6-Dinitrotoluene	<0.05
2,2'-Oxybis(1-chloropropane)	<0.01	3-Nitroaniline	<1
2-Methylphenol	<0.1	2,4-Dinitrophenol	<0.3
Hexachloroethane	<0.01	Dibenzofuran	<0.01
N-Nitroso-di-n-propylamine	<0.01	2,4-Dinitrotoluene	<0.05
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitrophenol	<0.3
Nitrobenzene	<0.01	Diethyl phthalate	<0.1
Isophorone	<0.01	4-Chlorophenyl phenyl ether	<0.01
2-Nitrophenol	<0.1	N-Nitrosodiphenylamine	<0.01
2,4-Dimethylphenol	<0.1	4-Nitroaniline	<1
Benzoic acid	<0.5	4,6-Dinitro-2-methylphenol	<0.3
Bis(2-chloroethoxy)methane	<0.01	4-Bromophenyl phenyl ether	<0.01
2,4-Dichlorophenol	<0.1	Hexachlorobenzene	<0.01
1,2,4-Trichlorobenzene	<0.01	Pentachlorophenol	<0.1
Hexachlorobutadiene	<0.01	Carbazole	<0.1
4-Chloroaniline	<1	Di-n-butyl phthalate	<0.1
4-Chloro-3-methylphenol	<0.1	Benzyl butyl phthalate	<0.1
2-Methylnaphthalene	<0.01	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.01	Di-n-octyl phthalate	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 02/06/17  
 Date Analyzed: 02/06/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701260  
 Lab ID: 07-248 mb  
 Data File: 020605.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	99	56	115
Phenol-d6	95	54	113
Nitrobenzene-d5	95	31	164
2-Fluorobiphenyl	95	47	133
2,4,6-Tribromophenol	92	35	141
Terphenyl-d14	102	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.1	Hexachlorocyclopentadiene	<0.03
Bis(2-chloroethyl) ether	<0.01	2,4,6-Trichlorophenol	<0.1
2-Chlorophenol	<0.1	2,4,5-Trichlorophenol	<0.1
1,3-Dichlorobenzene	<0.01	2-Chloronaphthalene	<0.01
1,4-Dichlorobenzene	<0.01	2-Nitroaniline	<0.05
1,2-Dichlorobenzene	<0.01	Dimethyl phthalate	<0.1
Benzyl alcohol	<0.1	2,6-Dinitrotoluene	<0.05
2,2'-Oxybis(1-chloropropane)	<0.01	3-Nitroaniline	<1
2-Methylphenol	<0.1	2,4-Dinitrophenol	<0.3
Hexachloroethane	<0.01	Dibenzofuran	<0.01
N-Nitroso-di-n-propylamine	<0.01	2,4-Dinitrotoluene	<0.05
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitrophenol	<0.3
Nitrobenzene	<0.01	Diethyl phthalate	<0.1
Isophorone	<0.01	4-Chlorophenyl phenyl ether	<0.01
2-Nitrophenol	<0.1	N-Nitrosodiphenylamine	<0.01
2,4-Dimethylphenol	<0.1	4-Nitroaniline	<1
Benzoic acid	<0.5	4,6-Dinitro-2-methylphenol	<0.3
Bis(2-chloroethoxy)methane	<0.01	4-Bromophenyl phenyl ether	<0.01
2,4-Dichlorophenol	<0.1	Hexachlorobenzene	<0.01
1,2,4-Trichlorobenzene	<0.01	Pentachlorophenol	<0.1
Hexachlorobutadiene	<0.01	Carbazole	<0.1
4-Chloroaniline	<1	Di-n-butyl phthalate	<0.1
4-Chloro-3-methylphenol	<0.1	Benzyl butyl phthalate	<0.1
2-Methylnaphthalene	<0.01	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.01	Di-n-octyl phthalate	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW2-10	Client:	Aspect Consulting, LLC
Date Received:	01/24/17	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	02/01/17	Lab ID:	701260-03 1/50
Date Analyzed:	02/02/17	Data File:	020205.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	60 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701260
Date Extracted:	02/01/17	Lab ID:	07-225 mb2 1/5
Date Analyzed:	02/01/17	Data File:	020119.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	72	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: 701264-01 (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	108	107	73-135	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	110	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	95	99	80-120	4
Barium	mg/kg (ppm)	50	101	104	80-120	3
Cadmium	mg/kg (ppm)	10	98	99	80-120	1
Chromium	mg/kg (ppm)	50	108	109	80-120	1
Copper	mg/kg (ppm)	50	99	99	80-120	0
Lead	mg/kg (ppm)	50	99	100	80-120	1
Mercury	mg/kg (ppm)	10	104	103	80-120	1
Nickel	mg/kg (ppm)	25	95	96	80-120	1
Selenium	mg/kg (ppm)	5	90	92	80-120	2
Silver	mg/kg (ppm)	10	88	92	80-120	4
Zinc	mg/kg (ppm)	50	92	92	80-120	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: 701253-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Hexane	mg/kg (ppm)	2.5	<0.25	42	45	10-95	7
Benzene	mg/kg (ppm)	2.5	<0.03	73	74	26-114	1
Toluene	mg/kg (ppm)	2.5	<0.05	85	87	34-112	2
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	85	87	34-115	2
m,p-Xylene	mg/kg (ppm)	5	<0.1	85	86	25-125	1
o-Xylene	mg/kg (ppm)	2.5	<0.05	85	89	27-126	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Hexane	mg/kg (ppm)	2.5	79	55-107
Benzene	mg/kg (ppm)	2.5	92	72-106
Toluene	mg/kg (ppm)	2.5	104	74-111
Ethylbenzene	mg/kg (ppm)	2.5	103	75-112
m,p-Xylene	mg/kg (ppm)	5	103	77-115
o-Xylene	mg/kg (ppm)	2.5	105	76-115

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: 701253-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	15	15	10-56	0
Chloromethane	mg/kg (ppm)	2.5	<0.5	44	45	10-90	2
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	44	47	10-91	7
Bromomethane	mg/kg (ppm)	2.5	<0.5	49	57	10-110	15
Chloroethane	mg/kg (ppm)	2.5	<0.5	48	53	10-101	10
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	47	49	10-95	4
Acetone	mg/kg (ppm)	12.5	<0.5	71	73	11-141	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	63	63	11-103	0
Hexane	mg/kg (ppm)	2.5	<0.25	42	45	10-95	7
Methylene chloride	mg/kg (ppm)	2.5	<0.5	76	80	14-128	5
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	75	77	17-134	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	71	74	13-112	4
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	73	75	23-115	3
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	68	75	18-117	10
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	75	78	25-120	4
Chloroform	mg/kg (ppm)	2.5	<0.05	73	74	29-117	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	76	73	20-133	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	74	75	22-124	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	71	74	27-112	4
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	71	72	26-107	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	72	74	22-115	3
Benzene	mg/kg (ppm)	2.5	<0.03	73	74	26-114	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	73	75	30-112	3
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	85	84	31-119	1
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	79	79	31-131	0
Dibromomethane	mg/kg (ppm)	2.5	<0.05	76	78	27-124	3
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	81	82	16-147	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	81	79	28-137	2
Toluene	mg/kg (ppm)	2.5	<0.05	85	87	34-112	2
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	91	88	30-136	3
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	93	92	32-126	1
2-Hexanone	mg/kg (ppm)	12.5	<0.5	91	90	17-147	1
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	85	86	29-125	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	85	88	25-114	3
Dibromoethane	mg/kg (ppm)	2.5	<0.05	97	98	32-143	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	90	88	32-126	2
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	89	90	37-113	1
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	85	87	34-115	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	87	90	35-126	3
m,p-Xylene	mg/kg (ppm)	5	<0.1	85	86	25-125	1
o-Xylene	mg/kg (ppm)	2.5	<0.05	85	89	27-126	5
Styrene	mg/kg (ppm)	2.5	<0.05	91	93	39-121	2
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	85	88	34-123	3
Bromoform	mg/kg (ppm)	2.5	<0.05	93	94	18-155	1
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	89	91	31-120	2
Bromobenzene	mg/kg (ppm)	2.5	<0.05	90	90	40-115	0
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	90	93	24-130	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	95	96	27-148	1
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	91	89	33-123	2
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	87	89	39-110	2
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	91	91	39-111	0
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	90	92	36-116	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	90	91	35-116	1
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	89	93	33-118	4
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	90	94	32-119	4
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	92	93	38-111	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	0.95	67 b	68 b	39-109	1 b
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	93	95	40-111	2
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	86	92	37-122	7
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	88	91	31-121	3
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	92	95	24-128	3
Naphthalene	mg/kg (ppm)	2.5	<0.05	90	93	24-139	3
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	89	91	35-117	2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	28	10-76
Chloromethane	mg/kg (ppm)	2.5	53	34-98
Vinyl chloride	mg/kg (ppm)	2.5	61	42-107
Bromomethane	mg/kg (ppm)	2.5	62	46-113
Chloroethane	mg/kg (ppm)	2.5	61	47-115
Trichlorofluoromethane	mg/kg (ppm)	2.5	70	53-112
Acetone	mg/kg (ppm)	12.5	90	39-147
1,1-Dichloroethene	mg/kg (ppm)	2.5	83	65-110
Hexane	mg/kg (ppm)	2.5	79	55-107
Methylene chloride	mg/kg (ppm)	2.5	94	50-127
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	91	72-122
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	91	74-109
2,2-Dichloropropane	mg/kg (ppm)	2.5	87	64-151
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	94	73-110
Chloroform	mg/kg (ppm)	2.5	91	76-110
2-Butanone (MEK)	mg/kg (ppm)	12.5	94	60-121
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	89	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	88	72-116
1,1-Dichloropropene	mg/kg (ppm)	2.5	90	72-112
Carbon tetrachloride	mg/kg (ppm)	2.5	88	67-123
Benzene	mg/kg (ppm)	2.5	92	72-106
Trichloroethene	mg/kg (ppm)	2.5	90	72-107
1,2-Dichloropropane	mg/kg (ppm)	2.5	103	74-115
Bromodichloromethane	mg/kg (ppm)	2.5	94	75-126
Dibromomethane	mg/kg (ppm)	2.5	92	76-116
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	103	80-128
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	98	71-138
Toluene	mg/kg (ppm)	2.5	104	74-111
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	108	77-135
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	110	77-116
2-Hexanone	mg/kg (ppm)	12.5	112	70-129
1,3-Dichloropropane	mg/kg (ppm)	2.5	105	75-115
Tetrachloroethene	mg/kg (ppm)	2.5	106	73-111
Dibromochloromethane	mg/kg (ppm)	2.5	113	64-152
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	107	77-117
Chlorobenzene	mg/kg (ppm)	2.5	107	76-109
Ethylbenzene	mg/kg (ppm)	2.5	103	75-112
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	105	76-125
m,p-Xylene	mg/kg (ppm)	5	103	77-115
o-Xylene	mg/kg (ppm)	2.5	105	76-115
Styrene	mg/kg (ppm)	2.5	111	76-119
Isopropylbenzene	mg/kg (ppm)	2.5	105	76-120
Bromoform	mg/kg (ppm)	2.5	109	50-174
n-Propylbenzene	mg/kg (ppm)	2.5	109	77-115
Bromobenzene	mg/kg (ppm)	2.5	114 vo	76-112
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	110	77-121
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	114	74-121
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	110	74-116
2-Chlorotoluene	mg/kg (ppm)	2.5	106	75-113
4-Chlorotoluene	mg/kg (ppm)	2.5	109	77-115
tert-Butylbenzene	mg/kg (ppm)	2.5	108	77-123
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	109	77-119
sec-Butylbenzene	mg/kg (ppm)	2.5	109	78-120
p-Isopropyltoluene	mg/kg (ppm)	2.5	110	77-120
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	111	76-112
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	107	74-109
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	113	75-114
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	102	68-122
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	107	75-122
Hexachlorobutadiene	mg/kg (ppm)	2.5	107	74-130
Naphthalene	mg/kg (ppm)	2.5	116	73-122
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	106	75-117

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 701377-19 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Phenol	mg/kg (ppm)	0.33	<0.5	84	50-150
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	<0.05	84	50-150
2-Chlorophenol	mg/kg (ppm)	0.33	<0.5	87	44-133
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	87	50-150
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	86	50-150
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	86	50-150
Benzyl alcohol	mg/kg (ppm)	0.33	<0.5	86	50-150
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	<0.05	82	50-150
2-Methylphenol	mg/kg (ppm)	0.33	<0.5	86	42-143
Hexachloroethane	mg/kg (ppm)	0.33	<0.05	88	31-132
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	<0.05	88	50-150
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	<1	86	10-250
Nitrobenzene	mg/kg (ppm)	0.33	<0.05	84	50-150
Isophorone	mg/kg (ppm)	0.33	<0.05	86	50-150
2-Nitrophenol	mg/kg (ppm)	0.33	<0.5	89	29-152
2,4-Dimethylphenol	mg/kg (ppm)	0.33	<0.5	83	16-163
Benzoic acid	mg/kg (ppm)	0.5	<2.5	61	10-250
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	<0.05	84	50-150
2,4-Dichlorophenol	mg/kg (ppm)	0.33	<0.5	89	39-145
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	<0.05	86	50-150
Hexachlorobutadiene	mg/kg (ppm)	0.33	<0.05	86	50-150
4-Chloroaniline	mg/kg (ppm)	0.66	<5	63	23-110
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	<0.5	92	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	94	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	94	50-150
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	<0.15	82	10-151
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	86	38-149
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	80	50-150
2-Chloronaphthalene	mg/kg (ppm)	0.33	<0.05	80	50-150
2-Nitroaniline	mg/kg (ppm)	0.33	<0.25	82	50-150
Dimethyl phthalate	mg/kg (ppm)	0.33	<0.5	79	50-150
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	85	50-150
3-Nitroaniline	mg/kg (ppm)	0.66	<5	65	23-119
2,4-Dinitrophenol	mg/kg (ppm)	0.33	<1.5	35	10-162
Dibenzofuran	mg/kg (ppm)	0.33	<0.05	86	47-149
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	86	50-150
4-Nitrophenol	mg/kg (ppm)	0.33	<1.5	62	10-179
Diethyl phthalate	mg/kg (ppm)	0.33	<0.5	85	50-150
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	89	50-150
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	<0.05	86	50-150
4-Nitroaniline	mg/kg (ppm)	0.66	<5	72	32-135
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	<1.5	42	10-170
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	98	50-150
Hexachlorobenzene	mg/kg (ppm)	0.33	<0.05	89	50-150
Pentachlorophenol	mg/kg (ppm)	0.33	<0.5	82	12-160
Carbazole	mg/kg (ppm)	0.33	<0.5	93	50-150
Di-n-butyl phthalate	mg/kg (ppm)	0.33	<0.5	93	50-150
Benzyl butyl phthalate	mg/kg (ppm)	0.33	<0.5	101	50-150
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	<0.8	100	10-250
Di-n-octyl phthalate	mg/kg (ppm)	0.33	<0.5	93	54-161

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

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Project: Snopac, PO 150054, F&BI 701260

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	mg/kg (ppm)	0.33	92	93	51-119	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	91	91	60-112	0
2-Chlorophenol	mg/kg (ppm)	0.33	94	95	59-114	1
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	92	93	62-113	1
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	92	93	61-114	1
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	93	93	61-113	0
Benzyl alcohol	mg/kg (ppm)	0.33	97	96	50-119	1
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	89	88	59-113	1
2-Methylphenol	mg/kg (ppm)	0.33	95	92	58-115	3
Hexachloroethane	mg/kg (ppm)	0.33	94	94	63-114	0
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	97	94	62-114	3
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	95	93	54-120	2
Nitrobenzene	mg/kg (ppm)	0.33	93	95	59-114	2
Isophorone	mg/kg (ppm)	0.33	95	94	61-113	1
2-Nitrophenol	mg/kg (ppm)	0.33	96	99	59-114	3
2,4-Dimethylphenol	mg/kg (ppm)	0.33	88	84	54-107	5
Benzoic acid	mg/kg (ppm)	0.5	100	109	43-150	9
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	94	93	60-114	1
2,4-Dichlorophenol	mg/kg (ppm)	0.33	98	97	57-118	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	94	94	56-112	0
Hexachlorobutadiene	mg/kg (ppm)	0.33	93	95	60-116	2
4-Chloroaniline	mg/kg (ppm)	0.66	55	55	10-126	0
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	99	103	59-115	4
2-Methylnaphthalene	mg/kg (ppm)	0.33	98	100	60-115	2
1-Methylnaphthalene	mg/kg (ppm)	0.33	99	100	70-130	1
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	101	105	41-107	4
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	94	96	47-119	2
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	98	100	61-121	2
2-Chloronaphthalene	mg/kg (ppm)	0.33	93	93	58-114	0
2-Nitroaniline	mg/kg (ppm)	0.33	98	102	55-119	4
Dimethyl phthalate	mg/kg (ppm)	0.33	102	105	58-116	3
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	103	106	57-119	3
3-Nitroaniline	mg/kg (ppm)	0.66	70	71	10-143	1
2,4-Dinitrophenol	mg/kg (ppm)	0.33	83	94	40-122	12
Dibenzofuran	mg/kg (ppm)	0.33	96	98	56-115	2
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	100	107	53-126	7
4-Nitrophenol	mg/kg (ppm)	0.33	77	88	40-124	13
Diethyl phthalate	mg/kg (ppm)	0.33	102	106	57-116	4
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	96	98	54-119	2
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	94	89	54-113	5
4-Nitroaniline	mg/kg (ppm)	0.66	73	83	47-109	13
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	87	90	55-147	3
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	99	95	56-116	4
Hexachlorobenzene	mg/kg (ppm)	0.33	100	97	57-115	3
Pentachlorophenol	mg/kg (ppm)	0.33	89	95	45-123	7
Carbazole	mg/kg (ppm)	0.33	86	88	57-116	2
Di-n-butyl phthalate	mg/kg (ppm)	0.33	98	104	56-118	6
Benzyl butyl phthalate	mg/kg (ppm)	0.33	104	101	56-122	3
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	100	104	56-155	4
Di-n-octyl phthalate	mg/kg (ppm)	0.33	91	96	58-120	5

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/09/17

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Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: 701253-01 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	81	44-129
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	87	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	84	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	88	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	83	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	85	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	84	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	98	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	94	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	86	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	99	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	94	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	88	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	57	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	62	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	49	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	87	88	58-121	1
Acenaphthylene	mg/kg (ppm)	0.17	91	91	54-121	0
Acenaphthene	mg/kg (ppm)	0.17	89	90	54-123	1
Fluorene	mg/kg (ppm)	0.17	90	90	56-127	0
Phenanthrene	mg/kg (ppm)	0.17	89	88	55-122	1
Anthracene	mg/kg (ppm)	0.17	86	88	50-120	2
Fluoranthene	mg/kg (ppm)	0.17	91	90	54-129	1
Pyrene	mg/kg (ppm)	0.17	96	95	53-127	1
Benz(a)anthracene	mg/kg (ppm)	0.17	97	98	51-115	1
Chrysene	mg/kg (ppm)	0.17	92	92	55-129	0
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	103	104	56-123	1
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	104	107	54-131	3
Benzo(a)pyrene	mg/kg (ppm)	0.17	87	87	51-118	0
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	63	61	49-148	3
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	70	67	50-141	4
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	55	53	52-131	4

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/09/17

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Project: Snopac, PO 150054, F&BI 701260

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

Laboratory Code: 701377-16 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	87	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	88	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	91	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	88	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	88	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	95	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	90	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	94	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	90	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	90	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	86	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	81	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	81	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	77	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	90	91	58-121	1
Acenaphthylene	mg/kg (ppm)	0.17	89	90	54-121	1
Acenaphthene	mg/kg (ppm)	0.17	91	91	54-123	0
Fluorene	mg/kg (ppm)	0.17	93	94	56-127	1
Phenanthrene	mg/kg (ppm)	0.17	90	92	55-122	2
Anthracene	mg/kg (ppm)	0.17	85	88	50-120	3
Fluoranthene	mg/kg (ppm)	0.17	95	96	54-129	1
Pyrene	mg/kg (ppm)	0.17	92	91	53-127	1
Benz(a)anthracene	mg/kg (ppm)	0.17	94	95	51-115	1
Chrysene	mg/kg (ppm)	0.17	94	95	55-129	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	97	95	56-123	2
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	98	93	54-131	5
Benzo(a)pyrene	mg/kg (ppm)	0.17	83	84	51-118	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	75	80	49-148	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	76	81	50-141	6
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	74	78	52-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 701253-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Phenol	mg/kg (ppm)	0.33	<0.5	94	50-150
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	<0.05	89	50-150
2-Chlorophenol	mg/kg (ppm)	0.33	<0.5	101	44-133
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	89	50-150
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	0.26	87 b	50-150
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
Benzyl alcohol	mg/kg (ppm)	0.33	<0.5	99	50-150
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Methylphenol	mg/kg (ppm)	0.33	<0.5	99	42-143
Hexachloroethane	mg/kg (ppm)	0.33	<0.05	91	31-132
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	<0.05	99	50-150
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	<1	102	10-250
Nitrobenzene	mg/kg (ppm)	0.33	<0.05	105	50-150
Isophorone	mg/kg (ppm)	0.33	<0.05	98	50-150
2-Nitrophenol	mg/kg (ppm)	0.33	<0.5	136	29-152
2,4-Dimethylphenol	mg/kg (ppm)	0.33	<0.5	102	16-163
Benzoic acid	mg/kg (ppm)	0.5	<2.5	85	10-250
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	<0.05	89	50-150
2,4-Dichlorophenol	mg/kg (ppm)	0.33	<0.5	108	39-145
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
Hexachlorobutadiene	mg/kg (ppm)	0.33	<0.05	91	50-150
4-Chloroaniline	mg/kg (ppm)	0.66	<5	74	23-110
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	<0.5	104	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	93	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	92	50-150
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	<0.15	98	10-151
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	117	38-149
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	114	50-150
2-Chloronaphthalene	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Nitroaniline	mg/kg (ppm)	0.33	<0.25	113	50-150
Dimethyl phthalate	mg/kg (ppm)	0.33	<0.5	104	50-150
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	113	50-150
3-Nitroaniline	mg/kg (ppm)	0.66	<5	78	23-119
2,4-Dinitrophenol	mg/kg (ppm)	0.33	<1.5	81	10-162
Dibenzofuran	mg/kg (ppm)	0.33	<0.05	90	47-149
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	117	50-150
4-Nitrophenol	mg/kg (ppm)	0.33	<1.5	93	10-179
Diethyl phthalate	mg/kg (ppm)	0.33	<0.5	108	50-150
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	92	50-150
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	<0.05	100	50-150
4-Nitroaniline	mg/kg (ppm)	0.66	<5	90	32-135
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	<1.5	97	10-170
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	99	50-150
Hexachlorobenzene	mg/kg (ppm)	0.33	<0.05	93	50-150
Pentachlorophenol	mg/kg (ppm)	0.33	<0.5	124	12-160
Carbazole	mg/kg (ppm)	0.33	<0.5	103	50-150
Di-n-butyl phthalate	mg/kg (ppm)	0.33	<0.5	110	50-150
Benzyl butyl phthalate	mg/kg (ppm)	0.33	<0.5	138	50-150
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	<0.8	104	10-250
Di-n-octyl phthalate	mg/kg (ppm)	0.33	<0.5	137	54-161

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	mg/kg (ppm)	0.33	101	102	51-119	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	93	93	60-112	0
2-Chlorophenol	mg/kg (ppm)	0.33	107	108	59-114	1
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	93	94	62-113	1
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	93	93	61-114	0
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	94	95	61-113	1
Benzyl alcohol	mg/kg (ppm)	0.33	105	106	50-119	1
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	97	97	59-113	0
2-Methylphenol	mg/kg (ppm)	0.33	102	104	58-115	2
Hexachloroethane	mg/kg (ppm)	0.33	95	95	63-114	0
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	100	103	62-114	3
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	107	109	54-120	2
Nitrobenzene	mg/kg (ppm)	0.33	110	112	59-114	2
Isophorone	mg/kg (ppm)	0.33	103	105	61-113	2
2-Nitrophenol	mg/kg (ppm)	0.33	148 vo	146 vo	59-114	1
2,4-Dimethylphenol	mg/kg (ppm)	0.33	92	92	54-107	0
Benzoic acid	mg/kg (ppm)	0.5	119	118	43-150	1
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	94	96	60-114	2
2,4-Dichlorophenol	mg/kg (ppm)	0.33	115	118	57-118	3
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	98	99	56-112	1
Hexachlorobutadiene	mg/kg (ppm)	0.33	98	99	60-116	1
4-Chloroaniline	mg/kg (ppm)	0.66	39	48	10-126	21 vo
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	114	116 vo	59-115	2
2-Methylnaphthalene	mg/kg (ppm)	0.33	99	102	60-115	3
1-Methylnaphthalene	mg/kg (ppm)	0.33	99	102	70-130	3
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	120 vo	118 vo	41-107	2
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	123 vo	124 vo	47-119	1
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	126 vo	126 vo	61-121	0
2-Chloronaphthalene	mg/kg (ppm)	0.33	99	100	58-114	1
2-Nitroaniline	mg/kg (ppm)	0.33	121 vo	124 vo	55-119	2
Dimethyl phthalate	mg/kg (ppm)	0.33	114	118 vo	58-116	3
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	122 vo	127 vo	57-119	4
3-Nitroaniline	mg/kg (ppm)	0.66	84	87	10-143	4
2,4-Dinitrophenol	mg/kg (ppm)	0.33	88	95	40-122	8
Dibenzofuran	mg/kg (ppm)	0.33	97	100	56-115	3
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	126	130 vo	53-126	3
4-Nitrophenol	mg/kg (ppm)	0.33	104	103	40-124	1
Diethyl phthalate	mg/kg (ppm)	0.33	116	119 vo	57-116	3
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	99	100	54-119	1
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	101	101	54-113	0
4-Nitroaniline	mg/kg (ppm)	0.66	95	95	47-109	0
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	100	109	55-147	9
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	106	108	56-116	2
Hexachlorobenzene	mg/kg (ppm)	0.33	101	102	57-115	1
Pentachlorophenol	mg/kg (ppm)	0.33	126 vo	128 vo	45-123	2
Carbazole	mg/kg (ppm)	0.33	103	104	57-116	1
Di-n-butyl phthalate	mg/kg (ppm)	0.33	124 vo	126 vo	56-118	2
Benzyl butyl phthalate	mg/kg (ppm)	0.33	147 vo	149 vo	56-122	1
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	131	126	56-155	4
Di-n-octyl phthalate	mg/kg (ppm)	0.33	146 vo	147 vo	58-120	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/09/17

Date Received: 01/24/17

Project: Snopac, PO 150054, F&BI 701260

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCOLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 701300-18 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	81	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	75	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	82	77	55-130	6
Aroclor 1260	mg/kg (ppm)	0.8	81	79	58-133	2

# FRIEDMAN & BRUYA, INC.

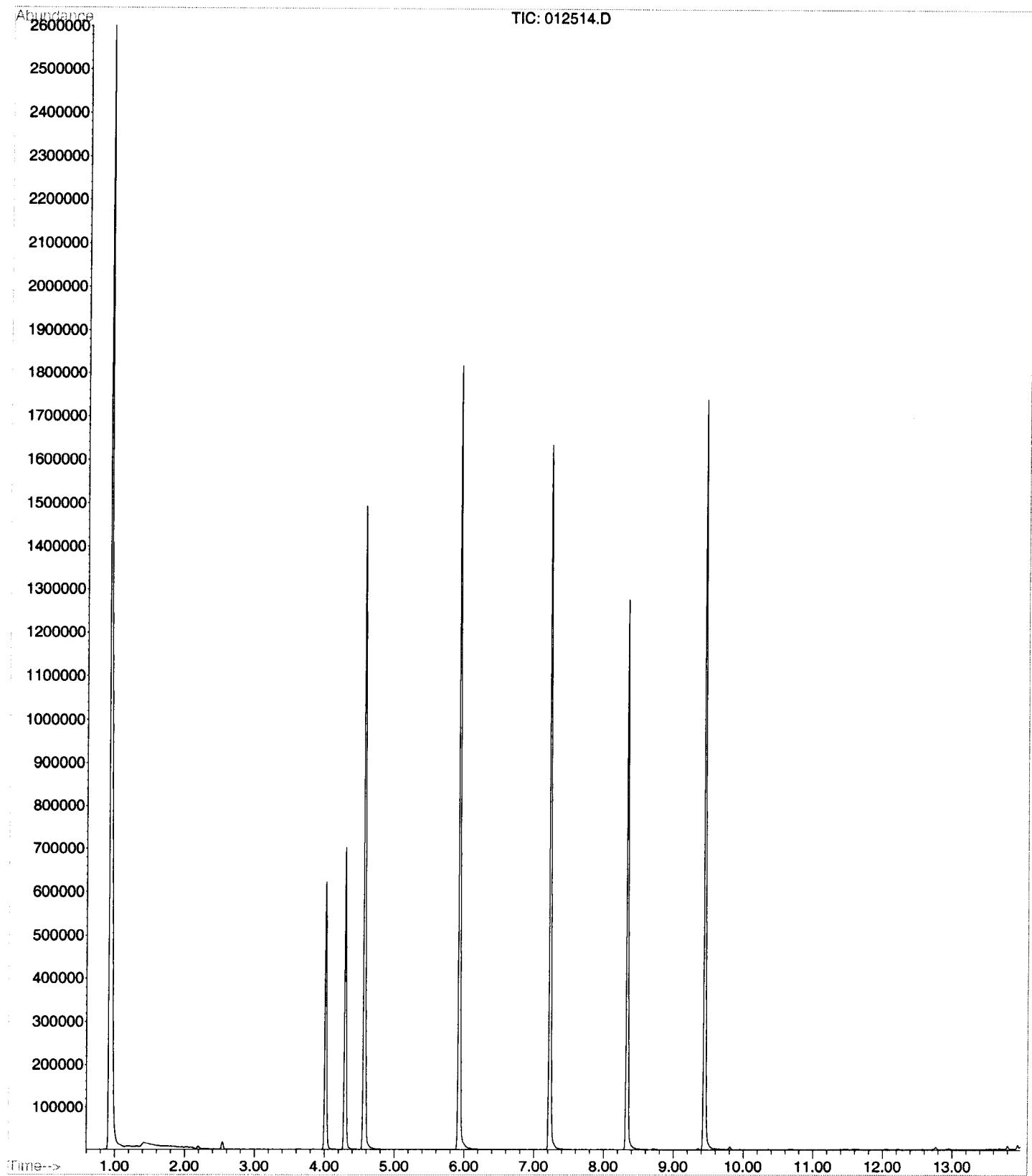
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## ENVIRONMENTAL CHEMISTS

### **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.
- 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.

File : I:\GCMS9\DATA\01-25-17\012514.D  
Operator : JS  
Acquired : 25 Jan 2017 2:44 pm using AcqMethod 826075  
Instrument : GCMS9  
Sample Name: 701260-13  
Misc Info : soil  
Vial Number: 14





**Fremont**  
*Analytical*

3600 Fremont Ave. N.  
Seattle, WA 98103  
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info@fremontanalytical.com

**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 701260**  
**Work Order Number: 1701283**

February 02, 2017

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 10 sample(s) on 1/25/2017 for the analyses presented in the following report.

***Total Organic Carbon by EPA 9060***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway  
Laboratory Director



Date: 02/02/2017

**CLIENT:** Friedman & Bruya  
**Project:** 701260  
**Work Order:** 1701283

### Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1701283-001	MW1-10-10.5	01/23/2017 9:00 AM	01/25/2017 11:50 AM
1701283-002	MW1-15-16	01/23/2017 9:15 AM	01/25/2017 11:50 AM
1701283-003	MW2-10	01/23/2017 11:00 AM	01/25/2017 11:50 AM
1701283-004	MW2-5-6	01/23/2017 11:05 AM	01/25/2017 11:50 AM
1701283-005	MW2-10-11	01/23/2017 11:10 AM	01/25/2017 11:50 AM
1701283-006	MW3-1-2	01/23/2017 1:50 PM	01/25/2017 11:50 AM
1701283-007	MW3-5.5-6	01/23/2017 1:55 PM	01/25/2017 11:50 AM
1701283-008	MW3-10-12	01/23/2017 2:00 PM	01/25/2017 11:50 AM
1701283-009	MW4-7-8	01/23/2017 3:00 PM	01/25/2017 11:50 AM
1701283-010	MW4-12.5-13.5	01/23/2017 3:10 PM	01/25/2017 11:50 AM

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**CLIENT:** Friedman & Bruya  
**Project:** 701260

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 1701283  
Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701260

**Lab ID:** 1701283-001                   **Collection Date:** 1/23/2017 9:00:00 AM

**Client Sample ID:** MW1-10-10.5

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA 9060**                   Batch ID: 16122                   Analyst: KT

Total Organic Carbon	1.22	0.0500	%-dry	1	2/2/2017 8:46:19 AM
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**Lab ID:** 1701283-002                   **Collection Date:** 1/23/2017 9:15:00 AM

**Client Sample ID:** MW1-15-16

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA 9060**                   Batch ID: 16122                   Analyst: KT

Total Organic Carbon	0.0555	0.0500	%-dry	1	2/2/2017 9:43:04 AM
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**Lab ID:** 1701283-003                   **Collection Date:** 1/23/2017 11:00:00 AM

**Client Sample ID:** MW2-10

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA 9060**                   Batch ID: 16122                   Analyst: KT

Total Organic Carbon	4.40	0.0500	%-dry	1	2/2/2017 9:58:45 AM
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## Analytical Report

Work Order: 1701283  
Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701260

**Lab ID:** 1701283-004

**Collection Date:** 1/23/2017 11:05:00 AM

**Client Sample ID:** MW2-5-6

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.237	0.0500		%-dry	1	2/2/2017 10:10:05 AM

**Lab ID:** 1701283-005

**Collection Date:** 1/23/2017 11:10:00 AM

**Client Sample ID:** MW2-10-11

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	2.30	0.0500		%-dry	1	2/2/2017 10:25:02 AM

**Lab ID:** 1701283-006

**Collection Date:** 1/23/2017 1:50:00 PM

**Client Sample ID:** MW3-1-2

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	1.50	0.0500		%-dry	1	2/2/2017 11:17:37 AM



## Analytical Report

Work Order: 1701283  
Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701260

**Lab ID:** 1701283-007                   **Collection Date:** 1/23/2017 1:55:00 PM

**Client Sample ID:** MW3-5.5-6

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	1.17	0.0500		%-dry	1	2/2/2017 11:31:27 AM

**Lab ID:** 1701283-008                   **Collection Date:** 1/23/2017 2:00:00 PM

**Client Sample ID:** MW3-10-12

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	2.00	0.0500		%-dry	1	2/2/2017 11:45:59 AM

**Lab ID:** 1701283-009                   **Collection Date:** 1/23/2017 3:00:00 PM

**Client Sample ID:** MW4-7-8

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Organic Carbon by EPA 9060</b>						
Total Organic Carbon	0.263	0.0500		%-dry	1	2/2/2017 12:33:26 PM



## Analytical Report

Work Order: 1701283

Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701260

**Lab ID:** 1701283-010

**Collection Date:** 1/23/2017 3:10:00 PM

**Client Sample ID:** MW4-12.5-13.5

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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### Total Organic Carbon by EPA 9060

Batch ID: 16122 Analyst: KT

Total Organic Carbon	2.49	0.0500	%-dry	1	2/2/2017 12:49:08 PM
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Date: 2/2/2017

Work Order: 1701283  
CLIENT: Friedman & Bruya  
Project: 701260

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA 9060**

Sample ID	MB-16122	SampType:	MBLK	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MBLKS	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652507			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		ND	0.0500									

Sample ID	LCS-16122	SampType:	LCS	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	LCSS	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652508			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		0.657	0.0500	0.6510	0	101	41.1	157				

Sample ID	1701283-001ADUP	SampType:	DUP	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MW1-10-10.5	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652510			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		1.71	0.0500					1.224		33.2	30	R

**NOTES:**

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1701283-001AMS	SampType:	MS	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MW1-10-10.5	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652511			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		2.26	0.0500	1.000	1.224	103	50.2	118				

Sample ID	1701283-001AMSD	SampType:	MSD	Units:	%-dry	Prep Date:	2/2/2017	RunNo:	34226			
Client ID:	MW1-10-10.5	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652512			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon		2.18	0.0500	1.000	1.224	95.9	50.2	118	2.255	3.24	20	



Date: 2/2/2017

Work Order: 1701283

CLIENT: Friedman & Bruya

Project: 701260

## QC SUMMARY REPORT

### Total Organic Carbon by EPA 9060

Sample ID	SampType:	Units:	Prep Date:	RunNo:							
Client ID:	Batch ID:		Analysis Date:	SeqNo:							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.0500			0			30			
Sample ID	1701344-001ADUP	SampType:	DUP	Units: %-dry		Prep Date:	2/2/2017	RunNo:	34226		
Client ID:	BATCH	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652525		
Total Organic Carbon	1.05	0.0500	1.000	0	105	50.2	118				
Sample ID	1701344-001AMS	SampType:	MS	Units: %-dry		Prep Date:	2/2/2017	RunNo:	34226		
Client ID:	BATCH	Batch ID:	16122			Analysis Date:	2/2/2017	SeqNo:	652526		
Total Organic Carbon	1.05	0.0500	1.000	0	105	50.2	118				



## Sample Log-In Check List

Client Name: **FB**  
Logged by: **Erica Silva**

Work Order Number: **1701283**

Date Received: **1/25/2017 11:50:00 AM**

### **Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present   
2. How was the sample delivered? Client

### **Log In**

3. Coolers are present? Yes  No  NA   
4. Shipping container/cooler in good condition? Yes  No   
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required   
6. Was an attempt made to cool the samples? Yes  No  NA   
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA   
8. Sample(s) in proper container(s)? Yes  No   
9. Sufficient sample volume for indicated test(s)? Yes  No   
10. Are samples properly preserved? Yes  No   
11. Was preservative added to bottles? Yes  No  NA   
12. Is there headspace in the VOA vials? Yes  No  NA   
13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
14. Does paperwork match bottle labels? Yes  No   
15. Are matrices correctly identified on Chain of Custody? Yes  No   
16. Is it clear what analyses were requested? Yes  No   
17. Were all holding times able to be met? Yes  No

### **Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### **Item Information**

Item #	Temp °C
Cooler	2.3
Sample	9.7

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company \_\_\_\_\_ Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone# (206) 285-8282 Fax# (206) 283-56

SUBCONTRACTER		Page #	1	of	1
<i>Fremont</i>		TURNAROUND TIME			
PROJECT NAME/NO.	PO #	Standard (2 Weeks)			
<i>701260</i>	<i>E-463</i>	<input type="checkbox"/> RUSH _____ Rush charges authorized by: _____			
REMARKS					
Please Email Results  <hr/>					
SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions					

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED			
						Dioxins/Furans	EPH	VPH	Nitrate
MW1-10-10.5		1/23/17	0900	Soil	1				X
MW1-15-16			0915						X
MW2-10			1100						X
MW2-5-6			1105						X
MW2-10-11			1110						X
MW3-1-2			1350						X
MW3-5.5-6			1355						X
MW3-10-12			1400						X
MW4-7-8			1500						X
MW4-12.5-13.5			1510						X

# SAMPLE CHAIN OF CUSTODY

Report To Kris Langley  
 Company Aspect Consulting

Address 401 And Are South

City, State, ZIP Seattle, WA 98104

Phone 206-812-4746 Email k.langley@aspect.com

SAMPLERS (signature) <u>Eric Moulder</u>	PO # <u>150054</u>
PROJECT NAME <u>SnoPac</u>	REMARKS <u>hexane</u>
ANALYSES REQUESTED	TURNAROUND TIME Page # <u>1</u> of <u>2</u>

Standard Turnaround  
 RUSH  
 Rush charges authorized by:

Dispose after 30 days  
 Archive Samples  
 Other Call Kris

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TOC	PCB	RCRA 8+2 CvN	Notes
MW1 - 10-10.5	01A-E	11/23/17	0900	S	5	X	X	X	X	X	X	X	X	X	*	* TIME ZERO * on labels DB
MW1 - 15-16	021		0915	S	5	X	X	X	X	X	X	X	X	X	*	
MW2 - 10	03		1100	S	6	X	X	X	X	X	X	X	X	X	*	
MW2 - 5-16	04A-F		1105	S	6	X	X	X	X	X	X	X	X	X	*	Diesel analytes highest priority. then metals.
MW2 - 15-16	05		1115	S	6	X	X	X	X	X	X	X	X	X	*	
MW2 - 10-11	06		1110	S	6	X	X	X	X	X	X	X	X	X	*	
MW3 - 1-2	07		1350	L	6	X	X	X	X	X	X	X	X	X	*	
MW3 - 5-5-6	08		1355	L	6	X	X	X	X	X	X	X	X	X	*	
MW3 - 10-12	09		1400	L	6	X	X	X	X	X	X	X	X	X	*	
MW3 - 16-17	10		1405	L	6	X	X	X	X	X	X	X	X	X	*	HOLD

SIGNATURE <u>Kris Langley</u>	PRINT NAME <u>Kris Langley</u>	COMPANY <u>Aspect</u>	DATE <u>11/24/17</u>	TIME <u>1405</u>
Received by: <u>Kris Langley</u>	Received by: <u>Eric Moulder</u>	Received by: <u>Eric Moulder</u>	Received by: <u>Kris Langley</u>	Received by: <u>Eric Moulder</u>
Samples received at <u>4</u> °C				

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

Report To 201960

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Company—

Address  
Klomps

Very good work

Phone 208-812-4749 Email

## SAMPLE CHAIN OF CUSTODY

SAMPLERS <i>Eric</i>	<i>(signature)</i>
PROJECT NAME <i>Etnopac</i>	PO #
REMARKS <i>Exine</i>	INVOICE TO <i>150054</i>

Page # 2 of 2

REVIEW ARTICLE

ISH

n charges authorized by:

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spägg efter 30 dagar

Archive Samples

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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 15, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 26, 2017 from the Snopac, PO 150054, F&BI 701295 project. There are 42 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0215R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 26, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac, PO 150054, F&BI 701295 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
701295 -01	B2-15-16
701295 -02	B2-16-17
701295 -03	B2-18-19
701295 -04	B3-10-11
701295 -05	B3-2-3
701295 -06	B4-2.4-4.5
701295 -07	B4-SBG-0
701295 -08	B5-10-10.2
701295 -09	B5-13-14
701295 -10	B5-16-17
701295 -11	B6-11.5-12.5
701295 -12	B6-0.8-1.1
701295 -13	B7-5.3-6.5
701295 -14	B7-5.3-6.5
701295 -15	B8-12-13
701295 -16	B9-0-1.5
701295 -17	B9-11-12
701295 -18	B9-5.3-7.3
701295 -19	B9-16-17
701295 -20	B9-18-19
701295 -21	B4-11.9-12.3

Samples B5-13-14, B5-16-17, B8-12-13, B9-0-1.5, and B9-16-17 were sent to Fremont Analytical for total organic carbon analysis. The report is enclosed.

Samples B4-SBG-0, B5-10-10.2, B6-0.8-1.1, and B9-0-1.5 were sent to ALS (Kelso) for tributyltin analysis. The report will be forwarded to your office upon receipt.

A 6020A internal standard failed the acceptance criteria for sample B9-0-1.5 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

The 8260C samples B4-SBG-0 and B5-10-10.2 were taken from a four ounce jar. The data were flagged accordingly.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE (continued)

The 8260C matrix spike and matrix spike duplicate failed the relative percent difference for several compounds. The analytes were not detected, therefore the data were acceptable.

Several compounds in the 8270D laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the samples, therefore the data were acceptable.

Pentachlorophenol was reported below the standard reporting limit in the 8270D samples B4-SBG-0, B5-10-10.2, and B6-0.8-1.1. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

Date Extracted: 01/30/17

Date Analyzed: 01/30/17

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 53-144)
B5-13-14 701295-09	<50	<250	112
B5-16-17 701295-10	<50	<250	93
B8-12-13 701295-15	<50	<250	96
B9-0-1.5 701295-16	68 x	760	95
B9-16-17 701295-19	<50	<250	110
Method Blank 07-176 MB	<50	<250	88

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B5-13-14	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	701295-09
Date Analyzed:	01/27/17	Data File:	701295-09.057
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.39
Barium	17.4
Cadmium	<1
Chromium	12.5
Copper	23.3
Lead	4.88
Mercury	<1
Nickel	10.7
Selenium	<1
Silver	<1
Zinc	24.0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B5-16-17	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	701295-10
Date Analyzed:	01/27/17	Data File:	701295-10.062
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.40
Barium	16.0
Cadmium	<1
Chromium	11.0
Copper	14.8
Lead	1.72
Mercury	<1
Nickel	8.74
Selenium	<1
Silver	<1
Zinc	20.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B8-12-13	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	701295-15
Date Analyzed:	01/27/17	Data File:	701295-15.063
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.34
Barium	14.9
Cadmium	<2
Chromium	12.6
Copper	21.0
Lead	3.15
Mercury	<2
Nickel	8.70
Selenium	<2
Silver	<2
Zinc	24.3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B9-0-1.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	701295-16
Date Analyzed:	01/27/17	Data File:	701295-16.064
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	309 J
Barium	52.4 J
Cadmium	<1 J
Chromium	29.0
Copper	216
Lead	266 ve
Mercury	<1
Nickel	27.2
Selenium	<1 J
Silver	<1 J
Zinc	842

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020A

Client ID:	B9-0-1.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	701295-16 x2
Date Analyzed:	02/02/17	Data File:	701295-16 x2.045
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	388
Barium	69.5
Cadmium	<2
Lead	333
Selenium	<2
Silver	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020A

Client ID:	B9-16-17	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	701295-19
Date Analyzed:	01/27/17	Data File:	701295-19.065
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.33
Barium	12.0
Cadmium	<1
Chromium	12.1
Copper	15.5
Lead	2.60
Mercury	<1
Nickel	10.7
Selenium	<1
Silver	<1
Zinc	26.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/27/17	Lab ID:	I7-045 mb2
Date Analyzed:	01/27/17	Data File:	I7-045 mb2.041
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B4-SBG-0 pc	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/26/17	Lab ID:	701295-07
Date Analyzed:	01/26/17	Data File:	012624.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	95	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B5-10-10.2 pc	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/26/17	Lab ID:	701295-08
Date Analyzed:	01/26/17	Data File:	012625.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	93	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B6-0.8-1.1 pc	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/26/17	Lab ID:	701295-12
Date Analyzed:	01/26/17	Data File:	012626.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	93	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: B9-16-17  
 Date Received: 01/26/17  
 Date Extracted: 01/26/17  
 Date Analyzed: 01/26/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701295  
 Lab ID: 701295-19  
 Data File: 012627.D  
 Instrument: GCMS9  
 Operator: JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	92	64	137
4-Bromofluorobenzene	96	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/26/17	Lab ID:	07-0145 mb
Date Analyzed:	01/26/17	Data File:	012605.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	96	64	137
4-Bromofluorobenzene	102	81	119

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B4-SBG-0	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/30/17	Lab ID:	701295-07 1/50
Date Analyzed:	01/31/17	Data File:	013113.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	196 d	31	163
Benzo(a)anthracene-d12	119 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	0.16
Fluorene	0.17
Phenanthrene	2.2
Anthracene	0.53
Fluoranthene	4.2
Pyrene	3.8
Benz(a)anthracene	2.0
Chrysene	2.3
Benzo(a)pyrene	2.3
Benzo(b)fluoranthene	3.0
Benzo(k)fluoranthene	1.2
Indeno(1,2,3-cd)pyrene	1.4
Dibenz(a,h)anthracene	0.35
Benzo(g,h,i)perylene	1.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B5-10-10.2	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/30/17	Lab ID:	701295-08 1/50
Date Analyzed:	01/31/17	Data File:	013114.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	129 d	31	163
Benzo(a)anthracene-d12	119 d	24	168

Compounds:	Concentration mg/kg (ppm)
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Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	0.15
Fluorene	0.13
Phenanthrene	1.8
Anthracene	0.62
Fluoranthene	4.4
Pyrene	4.1
Benz(a)anthracene	2.4
Chrysene	2.9
Benzo(a)pyrene	3.0
Benzo(b)fluoranthene	3.5
Benzo(k)fluoranthene	1.5
Indeno(1,2,3-cd)pyrene	2.0
Dibenz(a,h)anthracene	0.48
Benzo(g,h,i)perylene	1.6

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B6-0.8-1.1	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/30/17	Lab ID:	701295-12 1/50
Date Analyzed:	01/31/17	Data File:	013115.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	136 d	31	163
Benzo(a)anthracene-d12	103 d	24	168

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	0.11
Fluorene	<0.1
Phenanthrene	1.1
Anthracene	0.21
Fluoranthene	1.7
Pyrene	2.0
Benz(a)anthracene	0.87
Chrysene	1.2
Benzo(a)pyrene	0.93
Benzo(b)fluoranthene	1.2
Benzo(k)fluoranthene	0.42
Indeno(1,2,3-cd)pyrene	0.57
Dibenz(a,h)anthracene	0.15
Benzo(g,h,i)perylene	0.51

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	B9-0-1.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	02/07/17	Lab ID:	701295-16 1/100
Date Analyzed:	02/07/17	Data File:	020715.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	119 d	31	163
Benzo(a)anthracene-d12	120 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.43
Chrysene	0.53
Benzo(a)pyrene	0.50
Benzo(b)fluoranthene	0.74
Benzo(k)fluoranthene	0.21
Indeno(1,2,3-cd)pyrene	0.30
Dibenz(a,h)anthracene	<0.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/30/17	Lab ID:	07-224 mb 1/5
Date Analyzed:	01/31/17	Data File:	013106.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96	31	163
Benzo(a)anthracene-d12	98	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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	02/07/17	Lab ID:	07-247 mb2 1/5
Date Analyzed:	02/07/17	Data File:	020705.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	77	31	163
Benzo(a)anthracene-d12	91	24	168

Compounds:	Concentration mg/kg (ppm)
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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: B4-SBG-0  
 Date Received: 01/26/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701295  
 Lab ID: 701295-07 1/50  
 Data File: 013112.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	115 d	56	115
Phenol-d6	110 d	54	113
Nitrobenzene-d5	109 d	31	164
2-Fluorobiphenyl	112 d	47	133
2,4,6-Tribromophenol	96 d	35	141
Terphenyl-d14	123 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	<0.5
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	2.1 j
Hexachlorobutadiene	<0.5	Carbazole	<5
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	<0.5	Di-n-octyl phthalate	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: B5-10-10.2

Date Received: 01/26/17

Date Extracted: 01/30/17

Date Analyzed: 01/31/17

Matrix: Soil

Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC

Project: Snopac, PO 150054, F&BI 701295

Lab ID: 701295-08 1/50

Data File: 013113.D

Instrument: GCMS8

Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	107 d	56	115
Phenol-d6	105 d	54	113
Nitrobenzene-d5	105 d	31	164
2-Fluorobiphenyl	105 d	47	133
2,4,6-Tribromophenol	89 d	35	141
Terphenyl-d14	118 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	<0.5
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	2.0 j
Hexachlorobutadiene	<0.5	Carbazole	<5
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	<0.5	Di-n-octyl phthalate	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: B6-0.8-1.1  
 Date Received: 01/26/17  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701295  
 Lab ID: 701295-12 1/50  
 Data File: 013114.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	89 d	56	115
Phenol-d6	89 d	54	113
Nitrobenzene-d5	92 d	31	164
2-Fluorobiphenyl	95 d	47	133
2,4,6-Tribromophenol	75 d	35	141
Terphenyl-d14	109 d	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<5	Hexachlorocyclopentadiene	<1.5
Bis(2-chloroethyl) ether	<0.5	2,4,6-Trichlorophenol	<5
2-Chlorophenol	<5	2,4,5-Trichlorophenol	<5
1,3-Dichlorobenzene	<0.5	2-Chloronaphthalene	<0.5
1,4-Dichlorobenzene	<0.5	2-Nitroaniline	<2.5
1,2-Dichlorobenzene	<0.5	Dimethyl phthalate	<5
Benzyl alcohol	<5	2,6-Dinitrotoluene	<2.5
2,2'-Oxybis(1-chloropropane)	<0.5	3-Nitroaniline	<50
2-Methylphenol	<5	2,4-Dinitrophenol	<15
Hexachloroethane	<0.5	Dibenzofuran	<0.5
N-Nitroso-di-n-propylamine	<0.5	2,4-Dinitrotoluene	<2.5
3-Methylphenol + 4-Methylphenol	<10	4-Nitrophenol	<15
Nitrobenzene	<0.5	Diethyl phthalate	<5
Isophorone	<0.5	4-Chlorophenyl phenyl ether	<0.5
2-Nitrophenol	<5	N-Nitrosodiphenylamine	<0.5
2,4-Dimethylphenol	<5	4-Nitroaniline	<50
Benzoic acid	<25	4,6-Dinitro-2-methylphenol	<15
Bis(2-chloroethoxy)methane	<0.5	4-Bromophenyl phenyl ether	<0.5
2,4-Dichlorophenol	<5	Hexachlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5	Pentachlorophenol	2.6 j
Hexachlorobutadiene	<0.5	Carbazole	<5
4-Chloroaniline	<50	Di-n-butyl phthalate	<5
4-Chloro-3-methylphenol	<5	Benzyl butyl phthalate	<5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<8
1-Methylnaphthalene	<0.5	Di-n-octyl phthalate	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 01/30/17  
 Date Analyzed: 01/31/17  
 Matrix: Soil  
 Units: mg/kg (ppm) Dry Weight

Client: Aspect Consulting, LLC  
 Project: Snopac, PO 150054, F&BI 701295  
 Lab ID: 07-223 mb  
 Data File: 013105.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	101	56	115
Phenol-d6	101	54	113
Nitrobenzene-d5	103	31	164
2-Fluorobiphenyl	103	47	133
2,4,6-Tribromophenol	99	35	141
Terphenyl-d14	115	24	188

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Phenol	<0.1	Hexachlorocyclopentadiene	<0.03
Bis(2-chloroethyl) ether	<0.01	2,4,6-Trichlorophenol	<0.1
2-Chlorophenol	<0.1	2,4,5-Trichlorophenol	<0.1
1,3-Dichlorobenzene	<0.01	2-Chloronaphthalene	<0.01
1,4-Dichlorobenzene	<0.01	2-Nitroaniline	<0.05
1,2-Dichlorobenzene	<0.01	Dimethyl phthalate	<0.1
Benzyl alcohol	<0.1	2,6-Dinitrotoluene	<0.05
2,2'-Oxybis(1-chloropropane)	<0.01	3-Nitroaniline	<1
2-Methylphenol	<0.1	2,4-Dinitrophenol	<0.3
Hexachloroethane	<0.01	Dibenzofuran	<0.01
N-Nitroso-di-n-propylamine	<0.01	2,4-Dinitrotoluene	<0.05
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitrophenol	<0.3
Nitrobenzene	<0.01	Diethyl phthalate	<0.1
Isophorone	<0.01	4-Chlorophenyl phenyl ether	<0.01
2-Nitrophenol	<0.1	N-Nitrosodiphenylamine	<0.01
2,4-Dimethylphenol	<0.1	4-Nitroaniline	<1
Benzoic acid	<0.5	4,6-Dinitro-2-methylphenol	<0.3
Bis(2-chloroethoxy)methane	<0.01	4-Bromophenyl phenyl ether	<0.01
2,4-Dichlorophenol	<0.1	Hexachlorobenzene	<0.01
1,2,4-Trichlorobenzene	<0.01	Pentachlorophenol	<0.1
Hexachlorobutadiene	<0.01	Carbazole	<0.1
4-Chloroaniline	<1	Di-n-butyl phthalate	<0.1
4-Chloro-3-methylphenol	<0.1	Benzyl butyl phthalate	<0.1
2-Methylnaphthalene	<0.01	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.01	Di-n-octyl phthalate	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B4-SBG-0	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/31/17	Lab ID:	701295-07 1/50
Date Analyzed:	02/01/17	Data File:	020112.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	80 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	0.43
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B5-10-10.2	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/31/17	Lab ID:	701295-08 1/25
Date Analyzed:	02/01/17	Data File:	020113.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	74	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	0.21
Aroclor 1260	0.11
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B6-0.8-1.1	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/31/17	Lab ID:	701295-12 1/25
Date Analyzed:	02/01/17	Data File:	020114.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	71	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	0.31
Aroclor 1260	0.15
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B9-0-1.5	Client:	Aspect Consulting, LLC
Date Received:	01/26/17	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	02/07/17	Lab ID:	701295-16 1/50
Date Analyzed:	02/07/17	Data File:	020714.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	50 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	0.20
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	01/31/17	Lab ID:	07-225 mb 1/5
Date Analyzed:	02/01/17	Data File:	020107.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	77	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac, PO 150054, F&BI 701295
Date Extracted:	02/07/17	Lab ID:	07-250 mb 1/5
Date Analyzed:	02/07/17	Data File:	020707.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	89	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

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

Laboratory Code: 701295-19 (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	95	64-133	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	92	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	94	100	80-120	6
Barium	mg/kg (ppm)	50	99	101	80-120	2
Cadmium	mg/kg (ppm)	10	96	99	80-120	3
Chromium	mg/kg (ppm)	50	101	103	80-120	2
Copper	mg/kg (ppm)	50	99	101	80-120	2
Lead	mg/kg (ppm)	50	99	103	80-120	4
Mercury	mg/kg (ppm)	10	107	105	80-120	2
Nickel	mg/kg (ppm)	25	99	100	80-120	1
Selenium	mg/kg (ppm)	5	91	93	80-120	2
Silver	mg/kg (ppm)	10	97	94	80-120	3
Zinc	mg/kg (ppm)	50	89	92	80-120	3

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

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

Laboratory Code: 701275-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	6 vo	10	10-56	50 vo
Chloromethane	mg/kg (ppm)	2.5	<0.5	29	36	10-90	22 vo
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	26	36	10-91	32 vo
Bromomethane	mg/kg (ppm)	2.5	<0.5	40	48	10-110	18
Chloroethane	mg/kg (ppm)	2.5	<0.5	34	43	10-101	23 vo
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	25	37	10-95	39 vo
Acetone	mg/kg (ppm)	12.5	<0.5	50	66	11-141	28 vo
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	39	52	11-103	29 vo
Hexane	mg/kg (ppm)	2.5	<0.25	17	31	10-95	58 vo
Methylene chloride	mg/kg (ppm)	2.5	<0.5	57	67	14-128	16
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	62	72	17-134	15
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	53	64	13-112	19
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	56	66	23-115	16
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	54	64	18-117	17
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	61	71	25-120	15
Chloroform	mg/kg (ppm)	2.5	<0.05	60	67	29-117	11
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	53	70	20-133	28 vo
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	59	67	22-124	13
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	54	64	27-112	17
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	53	64	26-107	19
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	50	62	22-115	21 vo
Benzene	mg/kg (ppm)	2.5	<0.03	59	68	26-114	14
Trichloroethene	mg/kg (ppm)	2.5	<0.02	59	69	30-112	16
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	67	76	31-119	13
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	64	72	31-131	12
Dibromomethane	mg/kg (ppm)	2.5	<0.05	61	71	27-124	15
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	60	78	16-147	26 vo
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	65	75	28-137	14
Toluene	mg/kg (ppm)	2.5	<0.05	71	80	34-112	12
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	73	83	30-136	13
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	75	87	32-126	15
2-Hexanone	mg/kg (ppm)	12.5	<0.5	65	84	17-147	26 vo
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	69	81	29-125	16
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	67	80	25-114	18
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	77	90	32-143	16
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	69	82	32-126	17
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	76	84	37-113	10
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	72	82	34-115	13
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	76	84	35-126	10
m,p-Xylene	mg/kg (ppm)	5	<0.1	71	82	25-125	14
o-Xylene	mg/kg (ppm)	2.5	<0.05	76	85	27-126	11
Styrene	mg/kg (ppm)	2.5	<0.05	79	89	39-121	12
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	76	86	34-123	12
Bromoform	mg/kg (ppm)	2.5	<0.05	70	84	18-155	18
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	76	86	31-120	12
Bromobenzene	mg/kg (ppm)	2.5	<0.05	78	87	40-115	11
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	77	88	24-130	13
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	74	88	27-148	17
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	67	83	33-123	21 vo
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	76	84	39-110	10
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	83	89	39-111	7
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	78	87	36-116	11
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	77	87	35-116	12
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	78	88	33-118	12
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	79	89	32-119	12
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	80	88	38-111	10
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	77	87	39-109	12
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	82	90	40-111	9
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	61	83	37-122	31 vo
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	78	88	31-121	12
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	78	90	24-128	14
Naphthalene	mg/kg (ppm)	2.5	<0.05	72	90	24-139	22 vo
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	78	86	35-117	10

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	41	10-76
Chloromethane	mg/kg (ppm)	2.5	67	34-98
Vinyl chloride	mg/kg (ppm)	2.5	74	42-107
Bromomethane	mg/kg (ppm)	2.5	75	46-113
Chloroethane	mg/kg (ppm)	2.5	72	47-115
Trichlorofluoromethane	mg/kg (ppm)	2.5	78	53-112
Acetone	mg/kg (ppm)	12.5	85	39-147
1,1-Dichloroethene	mg/kg (ppm)	2.5	85	65-110
Hexane	mg/kg (ppm)	2.5	83	55-107
Methylene chloride	mg/kg (ppm)	2.5	94	50-127
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	90	72-122
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	94	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	91	74-109
2,2-Dichloropropane	mg/kg (ppm)	2.5	87	64-151
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	93	73-110
Chloroform	mg/kg (ppm)	2.5	88	76-110
2-Butanone (MEK)	mg/kg (ppm)	12.5	91	60-121
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	87	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	90	72-116
1,1-Dichloropropene	mg/kg (ppm)	2.5	91	72-112
Carbon tetrachloride	mg/kg (ppm)	2.5	90	67-123
Benzene	mg/kg (ppm)	2.5	91	72-106
Trichloroethene	mg/kg (ppm)	2.5	92	72-107
1,2-Dichloropropane	mg/kg (ppm)	2.5	102	74-115
Bromodichloromethane	mg/kg (ppm)	2.5	92	75-126
Dibromomethane	mg/kg (ppm)	2.5	92	76-116
4-Methyl-1-pentanone	mg/kg (ppm)	12.5	99	80-128
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	95	71-138
Toluene	mg/kg (ppm)	2.5	104	74-111
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	108	77-135
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	109	77-116
2-Hexanone	mg/kg (ppm)	12.5	108	70-129
1,3-Dichloropropane	mg/kg (ppm)	2.5	103	75-115
Tetrachloroethene	mg/kg (ppm)	2.5	107	73-111
Dibromochloromethane	mg/kg (ppm)	2.5	112	64-152
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	107	77-117
Chlorobenzene	mg/kg (ppm)	2.5	106	76-109
Ethylbenzene	mg/kg (ppm)	2.5	105	75-112
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	103	76-125
m,p-Xylene	mg/kg (ppm)	5	103	77-115
o-Xylene	mg/kg (ppm)	2.5	104	76-115
Styrene	mg/kg (ppm)	2.5	110	76-119
Isopropylbenzene	mg/kg (ppm)	2.5	106	76-120
Bromoform	mg/kg (ppm)	2.5	106	50-174
n-Propylbenzene	mg/kg (ppm)	2.5	107	77-115
Bromobenzene	mg/kg (ppm)	2.5	110	76-112
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	108	77-121
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	109	74-121
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	106	74-116
2-Chlorotoluene	mg/kg (ppm)	2.5	105	75-113
4-Chlorotoluene	mg/kg (ppm)	2.5	109	77-115
tert-Butylbenzene	mg/kg (ppm)	2.5	107	77-123
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	107	77-119
sec-Butylbenzene	mg/kg (ppm)	2.5	108	78-120
p-Isopropyltoluene	mg/kg (ppm)	2.5	110	77-120
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	109	76-112
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	105	74-109
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	111	75-114
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	101	68-122
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	104	75-122
Hexachlorobutadiene	mg/kg (ppm)	2.5	105	74-130
Naphthalene	mg/kg (ppm)	2.5	108	73-122
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	107	75-117

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

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

Laboratory Code: 701377-16 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	94	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	90	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	90	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	86	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	81	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	81	31-146

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	94	95	51-115	1
Chrysene	mg/kg (ppm)	0.17	94	95	55-129	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	97	95	56-123	2
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	98	93	54-131	5
Benzo(a)pyrene	mg/kg (ppm)	0.17	83	84	51-118	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	75	80	49-148	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	76	81	50-141	6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

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

Laboratory Code: 701300-05 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	86	44-129
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	86	52-121
Acenaphthene	mg/kg (ppm)	0.17	<0.01	85	51-123
Fluorene	mg/kg (ppm)	0.17	<0.01	87	37-137
Phenanthrene	mg/kg (ppm)	0.17	<0.01	86	34-141
Anthracene	mg/kg (ppm)	0.17	<0.01	91	32-124
Fluoranthene	mg/kg (ppm)	0.17	<0.01	94	16-160
Pyrene	mg/kg (ppm)	0.17	<0.01	82	10-180
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	85	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	86	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	87	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	92	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	79	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	77	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	82	31-146
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	78	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	87	91	58-121	4
Acenaphthylene	mg/kg (ppm)	0.17	84	89	54-121	6
Acenaphthene	mg/kg (ppm)	0.17	88	92	54-123	4
Fluorene	mg/kg (ppm)	0.17	90	93	56-127	3
Phenanthrene	mg/kg (ppm)	0.17	87	91	55-122	4
Anthracene	mg/kg (ppm)	0.17	94	97	50-120	3
Fluoranthene	mg/kg (ppm)	0.17	97	101	54-129	4
Pyrene	mg/kg (ppm)	0.17	83	84	53-127	1
Benz(a)anthracene	mg/kg (ppm)	0.17	87	88	51-115	1
Chrysene	mg/kg (ppm)	0.17	88	96	55-129	9
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	86	91	56-123	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	91	95	54-131	4
Benzo(a)pyrene	mg/kg (ppm)	0.17	80	83	51-118	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	77	84	49-148	9
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	79	89	50-141	12
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	78	86	52-131	10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: 701300-15 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Phenol	mg/kg (ppm)	0.33	<0.5	94	50-150
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Chlorophenol	mg/kg (ppm)	0.33	<0.5	94	44-133
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	90	50-150
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	<0.05	91	50-150
Benzyl alcohol	mg/kg (ppm)	0.33	<0.5	92	50-150
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	<0.05	92	50-150
2-Methylphenol	mg/kg (ppm)	0.33	<0.5	94	42-143
Hexachloroethane	mg/kg (ppm)	0.33	<0.05	92	31-132
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	<0.05	95	50-150
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	<1	92	10-250
Nitrobenzene	mg/kg (ppm)	0.33	<0.05	98	50-150
Iso phorone	mg/kg (ppm)	0.33	<0.05	96	50-150
2-Nitrophenol	mg/kg (ppm)	0.33	<0.5	109	29-152
2,4-Dimethylphenol	mg/kg (ppm)	0.33	<0.5	90	16-163
Benzoic acid	mg/kg (ppm)	0.5	<2.5	110	10-250
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	<0.05	94	50-150
2,4-Dichlorophenol	mg/kg (ppm)	0.33	<0.5	96	39-145
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	<0.05	93	50-150
Hexachlorobutadiene	mg/kg (ppm)	0.33	<0.05	93	50-150
4-Chloroaniline	mg/kg (ppm)	0.66	<5	71	23-110
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	<0.5	100	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	95	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.33	<0.05	95	50-150
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	<0.15	105	10-151
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	99	38-149
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	<0.5	100	50-150
2-Chloronaphthalene	mg/kg (ppm)	0.33	<0.05	93	50-150
2-Nitroaniline	mg/kg (ppm)	0.33	<0.25	102	50-150
Dimethyl phthalate	mg/kg (ppm)	0.33	<0.5	101	50-150
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	107	50-150
3-Nitroaniline	mg/kg (ppm)	0.66	<5	83	23-119
2,4-Dinitrophenol	mg/kg (ppm)	0.33	<1.5	109	10-162
Dibenzo furan	mg/kg (ppm)	0.33	<0.05	95	47-149
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	<0.25	107	50-150
4-Nitrophenol	mg/kg (ppm)	0.33	<1.5	91	10-179
Diethyl phthalate	mg/kg (ppm)	0.33	<0.5	102	50-150
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	94	50-150
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	<0.05	98	50-150
4-Nitroaniline	mg/kg (ppm)	0.66	<5	103	32-135
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	<1.5	111	10-170
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	<0.05	97	50-150
Hexachlorobenzene	mg/kg (ppm)	0.33	<0.05	97	50-150
Pentachlorophenol	mg/kg (ppm)	0.33	<0.5	103	12-160
Carbazole	mg/kg (ppm)	0.33	<0.5	103	50-150
Di-n-butyl phthalate	mg/kg (ppm)	0.33	<0.5	102	50-150
Benzyl butyl phthalate	mg/kg (ppm)	0.33	<0.5	104	50-150
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	<0.8	103	10-250
Di-n-octyl phthalate	mg/kg (ppm)	0.33	<0.5	99	54-161

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	mg/kg (ppm)	0.33	99	98	51-119	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.33	97	93	60-112	4
2-Chlorophenol	mg/kg (ppm)	0.33	97	94	59-114	3
1,3-Dichlorobenzene	mg/kg (ppm)	0.33	94	86	62-113	9
1,4-Dichlorobenzene	mg/kg (ppm)	0.33	94	87	61-114	8
1,2-Dichlorobenzene	mg/kg (ppm)	0.33	94	88	61-113	7
Benzyl alcohol	mg/kg (ppm)	0.33	101	100	50-119	1
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.33	98	93	59-113	5
2-Methylphenol	mg/kg (ppm)	0.33	96	94	58-115	2
Hexachloroethane	mg/kg (ppm)	0.33	95	88	63-114	8
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.33	103	103	62-114	0
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.33	98	97	54-120	1
Nitrobenzene	mg/kg (ppm)	0.33	103	100	59-114	3
Iso phorone	mg/kg (ppm)	0.33	103	104	61-113	1
2-Nitrophenol	mg/kg (ppm)	0.33	116 vo	113	59-114	3
2,4-Dimethylphenol	mg/kg (ppm)	0.33	77	66	54-107	15
Benzoic acid	mg/kg (ppm)	0.5	118	113	43-150	4
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.33	100	99	60-114	1
2,4-Dichlorophenol	mg/kg (ppm)	0.33	102	103	57-118	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.33	97	93	56-112	4
Hexachlorobutadiene	mg/kg (ppm)	0.33	97	92	60-116	5
4-Chloroaniline	mg/kg (ppm)	0.66	41	46	10-126	11
4-Chloro-3-methylphenol	mg/kg (ppm)	0.33	102	100	59-115	2
2-Methylnaphthalene	mg/kg (ppm)	0.33	98	97	60-115	1
1-Methylnaphthalene	mg/kg (ppm)	0.33	100	98	70-130	2
Hexachlorocyclopentadiene	mg/kg (ppm)	0.33	129 vo	125 vo	41-107	3
2,4,6-Trichlorophenol	mg/kg (ppm)	0.33	106	105	47-119	1
2,4,5-Trichlorophenol	mg/kg (ppm)	0.33	105	105	61-121	0
2-Chloronaphthalene	mg/kg (ppm)	0.33	99	99	58-114	0
2-Nitroaniline	mg/kg (ppm)	0.33	112	109	55-119	3
Dimethyl phthalate	mg/kg (ppm)	0.33	107	104	58-116	3
2,6-Dinitrotoluene	mg/kg (ppm)	0.33	115	112	57-119	3
3-Nitroaniline	mg/kg (ppm)	0.66	83	82	10-143	1
2,4-Dinitrophenol	mg/kg (ppm)	0.33	120	111	40-122	8
Dibenzofuran	mg/kg (ppm)	0.33	100	98	56-115	2
2,4-Dinitrotoluene	mg/kg (ppm)	0.33	113	110	53-126	3
4-Nitrophenol	mg/kg (ppm)	0.33	97	90	40-124	7
Diethyl phthalate	mg/kg (ppm)	0.33	106	102	57-116	4
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.33	98	97	54-119	1
N-Nitrosodiphenylamine	mg/kg (ppm)	0.33	97	98	54-113	1
4-Nitroaniline	mg/kg (ppm)	0.66	99	93	47-109	6
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.33	124	121	55-147	2
4-Bromophenyl phenyl ether	mg/kg (ppm)	0.33	104	104	56-116	0
Hexachlorobenzene	mg/kg (ppm)	0.33	103	104	57-115	1
Pentachlorophenol	mg/kg (ppm)	0.33	106	104	45-123	2
Carbazole	mg/kg (ppm)	0.33	97	100	57-116	3
Di-n-butyl phthalate	mg/kg (ppm)	0.33	103	102	56-118	1
Benzyl butyl phthalate	mg/kg (ppm)	0.33	111	109	56-122	2
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.33	103	101	56-155	2
Di-n-octyl phthalate	mg/kg (ppm)	0.33	99	96	58-120	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 701300-18 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	81	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	75	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	82	77	55-130	6
Aroclor 1260	mg/kg (ppm)	0.8	81	79	58-133	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/15/17

Date Received: 01/26/17

Project: Snopac, PO 150054, F&BI 701295

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 702015-01 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	88	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	83	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	84	81	55-130	4
Aroclor 1260	mg/kg (ppm)	0.8	83	82	58-133	1

FRIEDMAN & BRUYA, INC.

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.
- 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.



**Fremont**  
*Analytical*

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**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 701295**  
**Work Order Number: 1701312**

February 02, 2017

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 5 sample(s) on 1/26/2017 for the analyses presented in the following report.

***Total Organic Carbon by EPA 9060***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway  
Laboratory Director



Date: 02/02/2017

**CLIENT:** Friedman & Bruya  
**Project:** 701295  
**Work Order:** 1701312

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1701312-001	B5-13-14	01/24/2017 11:15 AM	01/26/2017 1:58 PM
1701312-002	B5-16-17	01/24/2017 11:20 AM	01/26/2017 1:58 PM
1701312-003	B8-12-13	01/24/2017 1:05 PM	01/26/2017 1:58 PM
1701312-004	B9-0-1.5	01/24/2017 3:10 PM	01/26/2017 1:58 PM
1701312-005	B9-16-17	01/24/2017 3:30 PM	01/26/2017 1:58 PM



## Case Narrative

WO#: 1701312

Date: 2/2/2017

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**CLIENT:** Friedman & Bruya  
**Project:** 701295

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### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 1701312  
Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701295

**Lab ID:** 1701312-001

**Collection Date:** 1/24/2017 11:15:00 AM

**Client Sample ID:** B5-13-14

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA 9060**

Batch ID: 16101 Analyst: KT

Total Organic Carbon	3.10	0.0500	%-dry	1	2/1/2017 9:09:50 AM
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**Lab ID:** 1701312-002

**Collection Date:** 1/24/2017 11:20:00 AM

**Client Sample ID:** B5-16-17

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA 9060**

Batch ID: 16101 Analyst: KT

Total Organic Carbon	0.327	0.0500	%-dry	1	2/1/2017 10:06:02 AM
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**Lab ID:** 1701312-003

**Collection Date:** 1/24/2017 1:05:00 PM

**Client Sample ID:** B8-12-13

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**Total Organic Carbon by EPA 9060**

Batch ID: 16101 Analyst: KT

Total Organic Carbon	5.20	0.0500	%-dry	1	2/1/2017 10:24:45 AM
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## Analytical Report

Work Order: 1701312

Date Reported: 2/2/2017

**CLIENT:** Friedman & Bruya

**Project:** 701295

**Lab ID:** 1701312-004

**Collection Date:** 1/24/2017 3:10:00 PM

**Client Sample ID:** B9-0-1.5

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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### Total Organic Carbon by EPA 9060

Batch ID: 16101 Analyst: KT

Total Organic Carbon

3.36

0.0500

%-dry

1

2/1/2017 10:42:24 AM

**Lab ID:** 1701312-005

**Collection Date:** 1/24/2017 3:30:00 PM

**Client Sample ID:** B9-16-17

**Matrix:** Soil

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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### Total Organic Carbon by EPA 9060

Batch ID: 16101 Analyst: KT

Total Organic Carbon

0.822

0.0500

%-dry

1

2/1/2017 10:53:28 AM



Date: 2/2/2017

Work Order: 1701312  
CLIENT: Friedman & Bruya  
Project: 701295

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA 9060**

Sample ID: <b>MB-16101</b>	SampType: <b>MBLK</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>MBLKS</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652100</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	ND	0.0500						

Sample ID: <b>LCS-16101</b>	SampType: <b>LCS</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>LCSS</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652101</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	0.724	0.0500	0.6070	0	119	41.1	157	

Sample ID: <b>1701312-001ADUP</b>	SampType: <b>DUP</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>B5-13-14</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652103</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	3.14	0.0500						

Sample ID: <b>1701312-001AMS</b>	SampType: <b>MS</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>B5-13-14</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652104</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	4.29	0.0500	1.000	3.101	119	50.2	118	S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: <b>1701312-001AMSD</b>	SampType: <b>MSD</b>	Units: %-dry			Prep Date: <b>2/1/2017</b>			RunNo: <b>34211</b>
Client ID: <b>B5-13-14</b>	Batch ID: <b>16101</b>				Analysis Date: <b>2/1/2017</b>			SeqNo: <b>652105</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Organic Carbon	4.25	0.0500	1.000	3.101	115	50.2	118	4.291



Date: 2/2/2017

Work Order: 1701312  
CLIENT: Friedman & Bruya  
Project: 701295

**QC SUMMARY REPORT**  
**Total Organic Carbon by EPA 9060**

Sample ID: 1701313-001ADUP	SampType: DUP	Units: %-dry			Prep Date: 2/1/2017			RunNo: 34211			
Client ID: BATCH	Batch ID: 16101				Analysis Date: 2/1/2017			SeqNo: 652113			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.286	0.0500						0.1246	78.5	30	R

**NOTES:**

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID: 1701313-001AMS	SampType: MS	Units: %-dry			Prep Date: 2/1/2017			RunNo: 34211			
Client ID: BATCH	Batch ID: 16101				Analysis Date: 2/1/2017			SeqNo: 652114			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.14	0.0500	1.000	0.1246	102	50.2	118				



## Sample Log-In Check List

Client Name: **FB**  
Logged by: **Clare Griggs**

Work Order Number: **1701312**  
Date Received: **1/26/2017 1:58:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
2. How was the sample delivered? FedEx

### Log In

3. Coolers are present? Yes  No  NA   
**No cooler present.**  
4. Shipping container/cooler in good condition? Yes  No   
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Required   
6. Was an attempt made to cool the samples? Yes  No  NA   
7. Were all items received at a temperature of >0°C to 10.0°C \* Yes  No  NA   
**Please refer to item information.**  
8. Sample(s) in proper container(s)? Yes  No   
9. Sufficient sample volume for indicated test(s)? Yes  No   
10. Are samples properly preserved? Yes  No   
11. Was preservative added to bottles? Yes  No  NA   
12. Is there headspace in the VOA vials? Yes  No  NA   
13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
14. Does paperwork match bottle labels? Yes  No   
15. Are matrices correctly identified on Chain of Custody? Yes  No   
16. Is it clear what analyses were requested? Yes  No   
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Sample	10.4

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company \_\_\_\_\_ Friedman and Bruya, Inc.

Address \_\_\_\_\_ 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER	
<u>remont</u>	
PROJECT NAME/NO.	PO #
<u>701245</u>	<u>E-468</u>
REMARKS	
Please Email Results	

Page #	<b>1</b>	of	<b>1</b>
<b>TURNAROUND TIME</b>			
<b>Standard (2 Weeks) <i>Week</i></b>			
<input checked="" type="checkbox"/> RUSH			
Rush charges authorized by:			
<hr/>			
<b>SAMPLE DISPOSAL</b>			
<input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions			

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED			
						Dioxins/Furans	EPH	VPH	Nitrate
85-13-14		1/24/17	1115	Soil	1		X		
85-16-17		1/20			1		X		
88-12-13		1/30			1		X		
89-0-15		1516			1		X		
89-16-17		1530			1		X		

Friedman & Bruya, Inc.

*Fleeman & Briley, Inc.*  
*3012 16th Avenue West*

Seattle, WA 98119-2029

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Ph. (206) 285-8282

*Fax (206) 283-5044*

Report To Kris Carpenter TORRES

Company Aspect Consulting  
Address 401 2nd Ave.  
City, State, ZIP Seattle, WA 98101  
Phone 206-812-4746 Email klongley@aspectcs.com

## SAMPLE CHAIN OF CUSTODY

SAMPLERS (signature)		Page #	of
<i>K.C. Knedler</i>		TURNAROUND TIME	
PROJECT NAME	PO #	Standard Turnaround	
Snoqual	158054	<input type="checkbox"/> RUSH _____	
REMARKS	INVOICE TO	Rush charges authorized by:	
<i>Exane</i>			
SAMPLE DISPOSAL			
<input type="checkbox"/> Dispose after 30 days			
<input type="checkbox"/> Archive Samples			
<input type="checkbox"/> Other <i>Call Mrs.</i>			

**Friedman & Bruya, Inc.**  
**3012 16<sup>th</sup> Avenue West**  
**Seattle, WA 98119-2029**  
**Ph. (206) 285-8282**

SIGNATURE		PRINT NAME	COMPANY	DATE	TIME
Reinstituted by:		Kyle Langberg	Akrest Con.	12/17/19	10:10
Received by:		Eric Howard	Fork	12/17/19	10:10
Relinquished by:					
Received by:		Samuel M. Schmitz	4cc		

**SAMPLE CHAIN OF CUSTODY**

ME 01-26-18 BT4/V32

Send Report To Kirsi Langley  
 Company Aspect Consulting  
 Address 1100 1/2 Ave NW  
 City, State, ZIP Seattle, WA 98119  
 Phone # (206) 283-5044 Fax # (206) 283-5044

SAMPLERS (signature) <u>Eric Underhill</u>		PROJECT NAME/NO. <u>SNOPAC</u>	PO# <u>150054</u>															
REMARKS * hold extra jars pending analysis. May request return of non-Sci containers.																		
ANALYSES REQUESTED																		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by	VOCs by 8260	SVOCs by 8270	HFS	TOC	PCB	PCRA	TBT	COPAHs	Notes	
B6-11.5-12.5	11A-F	1/24/17	1340	S	6	X	X					X	X					02/04
B6-0.8-1.1	12	1345	sunburst	S	6													
B7-5.3-6.5	13A-F	1155	S	6														
B7-5.3-6.5	14	1155	wood	S	1													
B8-12-13	13A-F	1305	S	6	X													
B9-0-1.5	14	1510	S	6	X	X	X											
B9-11-12	17	1525	S	6	X	X	X											
B9-5.3-7.3	16	1520	wood	S	6	X	X											
B9-16-17	19	1530	S	6	X	X	X											
B9-18-19	20	1535	S	6	X	X	X											

		SAMPLE DISPOSAL	
		<input type="checkbox"/> Dispose after 30 days	<input type="checkbox"/> Will call with instructions
		<input type="checkbox"/> Return samples	<input checked="" type="checkbox"/> Rush charges authorized by _____
		<input checked="" type="checkbox"/> Standard (2 Weeks)	<input type="checkbox"/> RUSH
Page # <u>2</u> of <u>2</u>			

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044	SIGNATURE <u>Kirsi Langley</u>	PRINT NAME <u>Kirsi Langley</u>	COMPANY <u>Aspect Consulting</u>	DATE <u>1/24/17</u>	TIME <u>10:10</u>
Received by: <u>Eric</u>	Received by: <u>Eric</u>	Relinquished by: <u>Eric</u>	Relinquished by: <u>Eric</u>	DATE <u>1/24/17</u>	TIME <u>14:00</u>
Samples received <u>4</u> <u>0</u>					

- 932 -

**SAMPLE CHAIN OF CUSTODY**

Report To \_\_\_\_\_

Company fls aceet

Address \_\_\_\_\_

City, State, ZIP \_\_\_\_\_

Phone \_\_\_\_\_

SAMPLERS (signature)		Page # <u>3</u> of <u>13</u>
PROJECT NAME		TURNAROUND TIME
		<input type="checkbox"/> Standard Turnaround <input checked="" type="checkbox"/> RUSH
		Rush charges authorized by: _____
REMARKS	INVOICE TO	SAMPLE DISPOSAL
		<input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other _____

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

## **APPENDIX G**

### **Laboratory Analytical Data, Groundwater**

# 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](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 16, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on February 6, 2017 from the Snopac 150054, F&BI 702082 project. There are 22 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0216R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 6, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 702082 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
702082 -01	MW5-020517

Di-n-butyl phthalate in the 8270D laboratory control sample duplicate exceeded the acceptance criteria. The analyte was not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

Date Extracted: 02/08/17

Date Analyzed: 02/08/17

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

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	Surrogate <u>(% Recovery)</u> (Limit 47-140)
MW5-020517 702082-01 1/1.1	<60	<280	96
Method Blank 07-279 MB	<50	<250	93

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW5-020517	Client:	Aspect Consulting, LLC
Date Received:	02/06/17	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/10/17	Lab ID:	702082-01
Date Analyzed:	02/14/17	Data File:	702082-01.082
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.28
Barium	10.1
Cadmium	<1
Chromium	1.60
Copper	<5
Lead	<1
Mercury	<1
Nickel	3.52
Selenium	1.83
Silver	<1
Zinc	10.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/10/17	Lab ID:	I7-068 mb
Date Analyzed:	02/14/17	Data File:	I7-068 mb.079
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW5-020517	Client:	Aspect Consulting, LLC
Date Received:	02/06/17	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/09/17	Lab ID:	702082-01
Date Analyzed:	02/09/17	Data File:	702082-01.055
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.34
Barium	11.1
Cadmium	<1
Chromium	1.42
Copper	<5
Lead	<1
Mercury	<1
Nickel	5.02
Selenium	2.40
Silver	<1
Zinc	8.14

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/09/17	Lab ID:	I7-060 mb2
Date Analyzed:	02/09/17	Data File:	I7-060 mb2.021
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW5-020517	Client:	Aspect Consulting, LLC
Date Received:	02/06/17	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/07/17	Lab ID:	702082-01
Date Analyzed:	02/07/17	Data File:	020709.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	106	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/07/17	Lab ID:	07-0254 mb
Date Analyzed:	02/07/17	Data File:	020706.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	108	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW5-020517  
 Date Received: 02/06/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702082  
 Lab ID: 702082-01  
 Data File: 021006.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	68	32	162
Phenol-d6	45	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	92	43	158
2,4,6-Tribromophenol	92	43	146
Terphenyl-d14	102	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702082  
 Lab ID: 07-280 mb  
 Data File: 021005.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	71	32	162
Phenol-d6	47	10	170
Nitrobenzene-d5	112	50	150
2-Fluorobiphenyl	94	43	158
2,4,6-Tribromophenol	73	43	146
Terphenyl-d14	107	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW5-020517	Client:	Aspect Consulting, LLC
Date Received:	02/06/17	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/08/17	Lab ID:	702082-01
Date Analyzed:	02/09/17	Data File:	020910.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	31	160
Benzo(a)anthracene-d12	100	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/08/17	Lab ID:	07-281 mb
Date Analyzed:	02/09/17	Data File:	020905.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	31	160
Benzo(a)anthracene-d12	97	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW5-020517	Client:	Aspect Consulting, LLC
Date Received:	02/06/17	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/08/17	Lab ID:	702082-01
Date Analyzed:	02/09/17	Data File:	020908.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702082
Date Extracted:	02/08/17	Lab ID:	07-283 mb
Date Analyzed:	02/09/17	Data File:	020907.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	107	107	61-133	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 702082-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.28	101	103	70-130	2
Barium	ug/L (ppb)	50	10.1	98	106	70-130	8
Cadmium	ug/L (ppb)	5	<1	96	102	70-130	6
Chromium	ug/L (ppb)	20	1.60	99	108	70-130	9
Copper	ug/L (ppb)	20	<5	90	95	70-130	5
Lead	ug/L (ppb)	10	<1	91	94	70-130	3
Mercury	ug/L (ppb)	10	<1	91	98	70-130	7
Nickel	ug/L (ppb)	20	3.52	93	98	70-130	5
Selenium	ug/L (ppb)	5	1.83	94	103	70-130	9
Silver	ug/L (ppb)	5	<1	84	92	70-130	9
Zinc	ug/L (ppb)	50	10.2	89	92	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	98	85-115
Barium	ug/L (ppb)	50	99	85-115
Cadmium	ug/L (ppb)	5	103	85-115
Chromium	ug/L (ppb)	20	103	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	104	85-115
Mercury	ug/L (ppb)	10	101	85-115
Nickel	ug/L (ppb)	20	103	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	101	85-115
Zinc	ug/L (ppb)	50	98	85-115

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 702103-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	2.04	110	112	70-130	2
Barium	ug/L (ppb)	50	21.2	107	106	70-130	1
Cadmium	ug/L (ppb)	5	<1	106	106	70-130	0
Chromium	ug/L (ppb)	20	1.61	102	100	70-130	2
Copper	ug/L (ppb)	20	5.12	97	95	70-130	2
Lead	ug/L (ppb)	10	1.07	95	95	70-130	0
Mercury	ug/L (ppb)	10	<1	104	105	70-130	1
Nickel	ug/L (ppb)	20	2.33	100	98	70-130	2
Selenium	ug/L (ppb)	5	<1	102	105	70-130	3
Silver	ug/L (ppb)	5	<1	107	108	70-130	1
Zinc	ug/L (ppb)	50	62.3	93	90	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	100	85-115
Barium	ug/L (ppb)	50	104	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	104	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	100	85-115
Mercury	ug/L (ppb)	10	108	85-115
Nickel	ug/L (ppb)	20	104	85-115
Selenium	ug/L (ppb)	5	103	85-115
Silver	ug/L (ppb)	5	107	85-115
Zinc	ug/L (ppb)	50	95	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

**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)
Hexane	ug/L (ppb)	50	90	92	57-137	2
Benzene	ug/L (ppb)	50	103	103	69-134	0
Toluene	ug/L (ppb)	50	93	92	72-122	1
Ethylbenzene	ug/L (ppb)	50	94	94	77-124	0
m,p-Xylene	ug/L (ppb)	100	96	96	83-125	0
o-Xylene	ug/L (ppb)	50	96	97	81-121	1

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	48	50	10-84	4
Bis(2-chloroethyl) ether	ug/L (ppb)	10	98	100	52-113	2
2-Chlorophenol	ug/L (ppb)	10	99	99	50-110	0
1,3-Dichlorobenzene	ug/L (ppb)	10	96	98	45-109	2
1,4-Dichlorobenzene	ug/L (ppb)	10	96	97	44-118	1
1,2-Dichlorobenzene	ug/L (ppb)	10	97	98	46-116	1
Benzyl alcohol	ug/L (ppb)	10	93	94	42-100	1
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	99	102	51-124	3
2-Methylphenol	ug/L (ppb)	10	83	87	38-100	5
Hexachloroethane	ug/L (ppb)	10	99	102	42-117	3
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	106	109	48-124	3
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	83	88	40-105	6
Nitrobenzene	ug/L (ppb)	10	105	108	50-118	3
Isophorone	ug/L (ppb)	10	104	108	55-116	4
2-Nitrophenol	ug/L (ppb)	10	113	118	42-127	4
2,4-Dimethylphenol	ug/L (ppb)	10	44	46	11-135	4
Benzoic acid	ug/L (ppb)	65	40	43	10-110	7
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	100	103	55-115	3
2,4-Dichlorophenol	ug/L (ppb)	10	105	108	55-113	3
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	98	50-109	1
Hexachlorobutadiene	ug/L (ppb)	10	96	97	50-109	1
4-Chloroaniline	ug/L (ppb)	20	89	91	30-109	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	102	106	54-114	4
2-Methylnaphthalene	ug/L (ppb)	10	101	104	53-113	3
1-Methylnaphthalene	ug/L (ppb)	10	101	103	70-130	2
Hexachlorocyclopentadiene	ug/L (ppb)	10	69	68	10-121	1
2,4,6-Trichlorophenol	ug/L (ppb)	10	91	98	46-114	7
2,4,5-Trichlorophenol	ug/L (ppb)	10	93	99	57-122	6
2-Chloronaphthalene	ug/L (ppb)	10	85	88	52-112	3
2-Nitroaniline	ug/L (ppb)	10	90	94	47-128	4
Dimethyl phthalate	ug/L (ppb)	10	96	98	55-116	2
2,6-Dinitrotoluene	ug/L (ppb)	10	96	100	49-126	4
3-Nitroaniline	ug/L (ppb)	20	85	89	21-125	5
2,4-Dinitrophenol	ug/L (ppb)	10	88	101	29-130	14
Dibenzofuran	ug/L (ppb)	10	85	89	53-113	5
2,4-Dinitrotoluene	ug/L (ppb)	10	86	91	48-129	6
4-Nitrophenol	ug/L (ppb)	10	45	47	10-80	4
Diethyl phthalate	ug/L (ppb)	10	97	100	55-116	3
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	85	89	52-115	5
N-Nitrosodiphenylamine	ug/L (ppb)	10	99	103	51-112	4
4-Nitroaniline	ug/L (ppb)	20	86	92	42-115	7
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	102	113	40-128	10
4-Bromophenyl phenyl ether	ug/L (ppb)	10	98	102	53-114	4
Hexachlorobenzene	ug/L (ppb)	10	95	99	54-115	4
Pentachlorophenol	ug/L (ppb)	10	101	113	49-114	11
Carbazole	ug/L (ppb)	10	100	106	54-115	6
Di-n-butyl phthalate	ug/L (ppb)	10	110	118 vo	54-115	7
Benzyl butyl phthalate	ug/L (ppb)	10	100	106	53-122	6
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	96	114	54-122	17
Di-n-octyl phthalate	ug/L (ppb)	10	110	119	50-131	8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	93	92	67-116	1
Acenaphthylene	ug/L (ppb)	1	92	93	65-119	1
Acenaphthene	ug/L (ppb)	1	92	93	66-118	1
Fluorene	ug/L (ppb)	1	95	97	64-125	2
Phenanthrene	ug/L (ppb)	1	93	95	67-120	2
Anthracene	ug/L (ppb)	1	93	97	65-122	4
Fluoranthene	ug/L (ppb)	1	95	102	65-127	7
Pyrene	ug/L (ppb)	1	92	85	62-130	8
Benz(a)anthracene	ug/L (ppb)	1	94	96	60-118	2
Chrysene	ug/L (ppb)	1	92	95	66-125	3
Benzo(b)fluoranthene	ug/L (ppb)	1	91	92	55-135	1
Benzo(k)fluoranthene	ug/L (ppb)	1	94	92	62-125	2
Benzo(a)pyrene	ug/L (ppb)	1	90	91	58-127	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	86	90	36-142	5
Dibenz(a,h)anthracene	ug/L (ppb)	1	73	82	37-133	12
Benzo(g,h,i)perylene	ug/L (ppb)	1	76	83	34-135	9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/06/17

Project: Snopac 150054, F&BI 702082

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	66	77	37-136	15
Aroclor 1260	ug/L (ppb)	2.5	67	77	41-135	14

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

7030829

SAMPLE CHAIN OF CUSTODY - M.E. 1 B94/VW1/ #H3

Report To Karen Loxley

Company Hsept Consultancy

Address 401 2nd Ave S, Ste 201

City, State, ZIP Seattle, WA 98104

Phone \_\_\_\_\_ Email [klowney@per.com](mailto:klowney@per.com)

SAMPLE CHAIN OF CUSTODY		ME 02/04/12	B04/VW1	AT 2		
SAMPLERS (signature)		Page # 1 of 1				
Report To	<u>Karen Lomax</u>	TURNAROUND TIME				
Company	<u>Asper Consultants</u>	<input checked="" type="checkbox"/> Standard Turnaround <input type="checkbox"/> RUSH				
Address	<u>401 2nd Ave S, Ste 201</u>	Rush charges authorized by:				
City, State, ZIP	<u>Seattle, WA 98101</u>					
Phone	<u>Email: karen@asperconsultants.com</u>					
REMARKS	INVOICE TO					
<table border="1"> <tr> <td colspan="2"> <input checked="" type="checkbox"/> SAMPLE DISPOSAL  <input type="checkbox"/> Dispose after 30 days  <input type="checkbox"/> Archive Samples  <input type="checkbox"/> Other _____         </td> </tr> </table>					<input checked="" type="checkbox"/> SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other _____	
<input checked="" type="checkbox"/> SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other _____						

*Friedman & Bruya, Inc.*

3012 16<sup>th</sup> Avenue West

*Seattle, WA 98119-2029*

Ph. (206) 285-8282

# 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.

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[fbi@isomedia.com](mailto:fbi@isomedia.com)  
[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 16, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on February 7, 2017 from the Snopac 150054, F&BI 702094 project. There are 38 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0216R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on February 7, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 702094 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
702094 -01	MW7-020617
702094 -02	MW6-020617
702094 -03	MW3-020617
702094 -04	MW4-020617

A 200.8 internal standard failed the acceptance criteria for total and dissolved analysis of sample MW4-020617 and the total analysis of sample MW3-020617 due to matrix interferences. The data were flagged accordingly. The samples were diluted and reanalyzed. Furthermore, due to the interference, selenium could only be reported from the diluted analysis of the sample.

Di-n-butyl phthalate in the 8270D laboratory control sample duplicate exceeded the acceptance criteria. The analyte was not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

Date Extracted: 02/08/17

Date Analyzed: 02/08/17

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 41-152)
MW7-020617 702094-01 1/1.1	<60	<280	98
MW6-020617 702094-02	<50	<250	100
MW4-020617 702094-04 1/1.1	110 x	<280	96
Method Blank 07-276 MB	<50	<250	87

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW7-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/10/17	Lab ID:	702094-01
Date Analyzed:	02/13/17	Data File:	702094-01.065
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.29
Barium	70.8
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	9.80
Selenium	4.17
Silver	<1
Zinc	7.81

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW6-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/10/17	Lab ID:	702094-02
Date Analyzed:	02/13/17	Data File:	702094-02.069
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.09
Barium	6.00
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	1.46
Selenium	<1
Silver	<1
Zinc	10.3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/10/17	Lab ID:	702094-04
Date Analyzed:	02/13/17	Data File:	702094-04.071
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.2 J
Barium	90.6 J
Cadmium	<1 J
Chromium	1.31 J
Copper	6.13 J
Lead	<1
Mercury	<1
Nickel	14.1 J
Silver	<1 J
Zinc	8.32 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/10/17	Lab ID:	702094-04 x10
Date Analyzed:	02/14/17	Data File:	702094-04 x10.028
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	15.7
Barium	82.6
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	15.4
Selenium	35.7
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/13/17	Lab ID:	I7-068 mb
Date Analyzed:	02/13/17	Data File:	I7-068 mb.048
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW7-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	702094-01
Date Analyzed:	02/09/17	Data File:	702094-01.023
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.76
Barium	68.1
Cadmium	<1
Chromium	1.31
Copper	<5
Lead	1.12
Mercury	<1
Nickel	9.96
Selenium	5.68
Silver	<1
Zinc	9.22

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW6-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	702094-02
Date Analyzed:	02/09/17	Data File:	702094-02.024
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.96
Barium	7.17
Cadmium	<1
Chromium	<1
Copper	7.40
Lead	1.08
Mercury	<1
Nickel	1.58
Selenium	<1
Silver	<1
Zinc	12.2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW3-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	702094-03
Date Analyzed:	02/09/17	Data File:	702094-03.025
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.8 J
Barium	10.3 J
Cadmium	<1 J
Chromium	3.43
Copper	7.92
Lead	2.82
Mercury	<1
Nickel	20.5
Silver	<1 J
Zinc	13.9

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW3-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	702094-03 x10
Date Analyzed:	02/09/17	Data File:	702094-03 x10.082
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	11.7
Barium	10.4
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	27.3
Selenium	41.1
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	702094-04
Date Analyzed:	02/09/17	Data File:	702094-04.039
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14.7 J
Barium	96.4 J
Cadmium	<1 J
Chromium	2.28
Copper	8.50
Lead	2.69 J
Mercury	<1 J
Nickel	11.7
Silver	<1 J
Zinc	8.68

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	702094-04 x10
Date Analyzed:	02/09/17	Data File:	702094-04 x10.086
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	16.6
Barium	96.2
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	14.9
Selenium	40.8
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/09/17	Lab ID:	I7-060 mb2
Date Analyzed:	02/09/17	Data File:	I7-060 mb2.021
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW7-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/07/17	Lab ID:	702094-01
Date Analyzed:	02/07/17	Data File:	020720.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	106	63	127
4-Bromofluorobenzene	96	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW6-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/07/17	Lab ID:	702094-02
Date Analyzed:	02/07/17	Data File:	020721.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	108	63	127
4-Bromofluorobenzene	97	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/07/17	Lab ID:	702094-04
Date Analyzed:	02/07/17	Data File:	020722.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	108	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Hexane	<1
Benzene	0.42
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/07/17	Lab ID:	07-0254 mb
Date Analyzed:	02/07/17	Data File:	020706.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	108	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW7-020617  
 Date Received: 02/07/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702094  
 Lab ID: 702094-01  
 Data File: 021007.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72	32	162
Phenol-d6	46	10	170
Nitrobenzene-d5	113	50	150
2-Fluorobiphenyl	92	43	158
2,4,6-Tribromophenol	94	43	146
Terphenyl-d14	106	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW6-020617  
 Date Received: 02/07/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702094  
 Lab ID: 702094-02  
 Data File: 021008.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	70	32	162
Phenol-d6	45	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	91	43	158
2,4,6-Tribromophenol	94	43	146
Terphenyl-d14	101	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW4-020617  
 Date Received: 02/07/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702094  
 Lab ID: 702094-04  
 Data File: 021009.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	32	162
Phenol-d6	50	10	170
Nitrobenzene-d5	115	50	150
2-Fluorobiphenyl	94	43	158
2,4,6-Tribromophenol	100	43	146
Terphenyl-d14	106	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702094  
 Lab ID: 07-280 mb  
 Data File: 021005.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	71	32	162
Phenol-d6	47	10	170
Nitrobenzene-d5	112	50	150
2-Fluorobiphenyl	94	43	158
2,4,6-Tribromophenol	73	43	146
Terphenyl-d14	107	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW7-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	702094-01
Date Analyzed:	02/09/17	Data File:	020911.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	31	160
Benzo(a)anthracene-d12	88	25	165

Compounds:	Concentration ug/L (ppb)
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Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW6-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	702094-02
Date Analyzed:	02/09/17	Data File:	020912.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	31	160
Benzo(a)anthracene-d12	92	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	0.031
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	0.033
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	702094-04
Date Analyzed:	02/09/17	Data File:	020913.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90	31	160
Benzo(a)anthracene-d12	106	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	0.081
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	0.056
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	07-281 mb
Date Analyzed:	02/09/17	Data File:	020905.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	31	160
Benzo(a)anthracene-d12	97	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW7-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	702094-01
Date Analyzed:	02/09/17	Data File:	020909.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	65	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW6-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	702094-02
Date Analyzed:	02/09/17	Data File:	020910.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW4-020617	Client:	Aspect Consulting, LLC
Date Received:	02/07/17	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	702094-04
Date Analyzed:	02/09/17	Data File:	020911.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	66	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702094
Date Extracted:	02/08/17	Lab ID:	07-283 mb
Date Analyzed:	02/09/17	Data File:	020907.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	88	94	63-142	7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 702082-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.28	101	103	70-130	2
Barium	ug/L (ppb)	50	10.1	98	106	70-130	8
Cadmium	ug/L (ppb)	5	<1	96	102	70-130	6
Chromium	ug/L (ppb)	20	1.60	99	108	70-130	9
Copper	ug/L (ppb)	20	<5	90	95	70-130	5
Lead	ug/L (ppb)	10	<1	91	94	70-130	3
Mercury	ug/L (ppb)	10	<1	91	98	70-130	7
Nickel	ug/L (ppb)	20	3.52	93	98	70-130	5
Selenium	ug/L (ppb)	5	1.83	94	103	70-130	9
Silver	ug/L (ppb)	5	<1	84	92	70-130	9
Zinc	ug/L (ppb)	50	10.2	89	92	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	98	85-115
Barium	ug/L (ppb)	50	99	85-115
Cadmium	ug/L (ppb)	5	103	85-115
Chromium	ug/L (ppb)	20	103	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	104	85-115
Mercury	ug/L (ppb)	10	101	85-115
Nickel	ug/L (ppb)	20	103	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	101	85-115
Zinc	ug/L (ppb)	50	98	85-115

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 702103-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	2.04	110	112	70-130	2
Barium	ug/L (ppb)	50	21.2	107	106	70-130	1
Cadmium	ug/L (ppb)	5	<1	106	106	70-130	0
Chromium	ug/L (ppb)	20	1.61	102	100	70-130	2
Copper	ug/L (ppb)	20	5.12	97	95	70-130	2
Lead	ug/L (ppb)	10	1.07	95	95	70-130	0
Mercury	ug/L (ppb)	10	<1	104	105	70-130	1
Nickel	ug/L (ppb)	20	2.33	100	98	70-130	2
Selenium	ug/L (ppb)	5	<1	102	105	70-130	3
Silver	ug/L (ppb)	5	<1	107	108	70-130	1
Zinc	ug/L (ppb)	50	62.3	93	90	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	100	85-115
Barium	ug/L (ppb)	50	104	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	104	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	100	85-115
Mercury	ug/L (ppb)	10	108	85-115
Nickel	ug/L (ppb)	20	104	85-115
Selenium	ug/L (ppb)	5	103	85-115
Silver	ug/L (ppb)	5	107	85-115
Zinc	ug/L (ppb)	50	95	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

**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)
Hexane	ug/L (ppb)	50	90	92	57-137	2
Benzene	ug/L (ppb)	50	103	103	69-134	0
Toluene	ug/L (ppb)	50	93	92	72-122	1
Ethylbenzene	ug/L (ppb)	50	94	94	77-124	0
m,p-Xylene	ug/L (ppb)	100	96	96	83-125	0
o-Xylene	ug/L (ppb)	50	96	97	81-121	1

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	48	50	10-84	4
Bis(2-chloroethyl) ether	ug/L (ppb)	10	98	100	52-113	2
2-Chlorophenol	ug/L (ppb)	10	99	99	50-110	0
1,3-Dichlorobenzene	ug/L (ppb)	10	96	98	45-109	2
1,4-Dichlorobenzene	ug/L (ppb)	10	96	97	44-118	1
1,2-Dichlorobenzene	ug/L (ppb)	10	97	98	46-116	1
Benzyl alcohol	ug/L (ppb)	10	93	94	42-100	1
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	99	102	51-124	3
2-Methylphenol	ug/L (ppb)	10	83	87	38-100	5
Hexachloroethane	ug/L (ppb)	10	99	102	42-117	3
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	106	109	48-124	3
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	83	88	40-105	6
Nitrobenzene	ug/L (ppb)	10	105	108	50-118	3
Isophorone	ug/L (ppb)	10	104	108	55-116	4
2-Nitrophenol	ug/L (ppb)	10	113	118	42-127	4
2,4-Dimethylphenol	ug/L (ppb)	10	44	46	11-135	4
Benzoic acid	ug/L (ppb)	65	40	43	10-110	7
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	100	103	55-115	3
2,4-Dichlorophenol	ug/L (ppb)	10	105	108	55-113	3
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	98	50-109	1
Hexachlorobutadiene	ug/L (ppb)	10	96	97	50-109	1
4-Chloroaniline	ug/L (ppb)	20	89	91	30-109	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	102	106	54-114	4
2-Methylnaphthalene	ug/L (ppb)	10	101	104	53-113	3
1-Methylnaphthalene	ug/L (ppb)	10	101	103	70-130	2
Hexachlorocyclopentadiene	ug/L (ppb)	10	69	68	10-121	1
2,4,6-Trichlorophenol	ug/L (ppb)	10	91	98	46-114	7
2,4,5-Trichlorophenol	ug/L (ppb)	10	93	99	57-122	6
2-Chloronaphthalene	ug/L (ppb)	10	85	88	52-112	3
2-Nitroaniline	ug/L (ppb)	10	90	94	47-128	4
Dimethyl phthalate	ug/L (ppb)	10	96	98	55-116	2
2,6-Dinitrotoluene	ug/L (ppb)	10	96	100	49-126	4
3-Nitroaniline	ug/L (ppb)	20	85	89	21-125	5
2,4-Dinitrophenol	ug/L (ppb)	10	88	101	29-130	14
Dibenzofuran	ug/L (ppb)	10	85	89	53-113	5
2,4-Dinitrotoluene	ug/L (ppb)	10	86	91	48-129	6
4-Nitrophenol	ug/L (ppb)	10	45	47	10-80	4
Diethyl phthalate	ug/L (ppb)	10	97	100	55-116	3
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	85	89	52-115	5
N-Nitrosodiphenylamine	ug/L (ppb)	10	99	103	51-112	4
4-Nitroaniline	ug/L (ppb)	20	86	92	42-115	7
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	102	113	40-128	10
4-Bromophenyl phenyl ether	ug/L (ppb)	10	98	102	53-114	4
Hexachlorobenzene	ug/L (ppb)	10	95	99	54-115	4
Pentachlorophenol	ug/L (ppb)	10	101	113	49-114	11
Carbazole	ug/L (ppb)	10	100	106	54-115	6
Di-n-butyl phthalate	ug/L (ppb)	10	110	118 vo	54-115	7
Benzyl butyl phthalate	ug/L (ppb)	10	100	106	53-122	6
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	96	114	54-122	17
Di-n-octyl phthalate	ug/L (ppb)	10	110	119	50-131	8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	93	92	67-116	1
Acenaphthylene	ug/L (ppb)	1	92	93	65-119	1
Acenaphthene	ug/L (ppb)	1	92	93	66-118	1
Fluorene	ug/L (ppb)	1	95	97	64-125	2
Phenanthrene	ug/L (ppb)	1	93	95	67-120	2
Anthracene	ug/L (ppb)	1	93	97	65-122	4
Fluoranthene	ug/L (ppb)	1	95	102	65-127	7
Pyrene	ug/L (ppb)	1	92	85	62-130	8
Benz(a)anthracene	ug/L (ppb)	1	94	96	60-118	2
Chrysene	ug/L (ppb)	1	92	95	66-125	3
Benzo(b)fluoranthene	ug/L (ppb)	1	91	92	55-135	1
Benzo(k)fluoranthene	ug/L (ppb)	1	94	92	62-125	2
Benzo(a)pyrene	ug/L (ppb)	1	90	91	58-127	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	86	90	36-142	5
Dibenz(a,h)anthracene	ug/L (ppb)	1	73	82	37-133	12
Benzo(g,h,i)perylene	ug/L (ppb)	1	76	83	34-135	9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/17

Date Received: 02/07/17

Project: Snopac 150054, F&BI 702094

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	66	77	37-136	15
Aroclor 1260	ug/L (ppb)	2.5	67	77	41-135	14

# FRIEDMAN & BRUYA, INC.

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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.
- 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.



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
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February 17, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on February 8, 2017 from the SnoPac 150054, F&BI 702115 project. There are 44 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
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ASP0217R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 8, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC SnoPac 150054, F&BI 702115 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
702115 -01	MW12-020717
702115 -02	MW9-020717
702115 -03	MW2-020717
702115 -04	MW1-020717

A 200.8 internal standard failed the acceptance criteria for total and dissolved analysis of samples MW2-020717 and MW1-020717 due to matrix interferences. The data were flagged accordingly. The samples were diluted and reanalyzed. Furthermore, due to the interference, selenium could only be reported from the diluted analysis of the samples.

Di-n-butyl phthalate in the 8270D laboratory control sample duplicate exceeded the acceptance criteria. The analyte was not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

Date Extracted: 02/08/17

Date Analyzed: 02/08/17

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 47-140)
MW12-020717 702115-01	<50	<250	87
MW9-020717 702115-02	<50	<250	96
MW2-020717 702115-03	85 x	<250	94
MW1-020717 702115-04	<50	<250	88
Method Blank 07-279 MB	<50	<250	93

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW12-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	702115-01
Date Analyzed:	02/09/17	Data File:	702115-01.056
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.23
Barium	7.29
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	4.20
Selenium	1.56
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW9-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	702115-02
Date Analyzed:	02/09/17	Data File:	702115-02.057
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	12.5
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	2.23
Selenium	<1
Silver	<1
Zinc	5.91

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	702115-03
Date Analyzed:	02/09/17	Data File:	702115-03.058
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.24 J
Barium	17.7 J
Cadmium	<1 J
Chromium	3.17
Copper	5.44
Lead	<1
Mercury	<1
Nickel	18.4
Silver	<1 J
Zinc	43.7

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	702115-03 x10
Date Analyzed:	02/09/17	Data File:	702115-03 x10.074
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.3
Barium	18.8
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	24.3
Selenium	40.0
Silver	<10
Zinc	59.0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	702115-04
Date Analyzed:	02/09/17	Data File:	702115-04.059
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	15.4 J
Barium	54.2 J
Cadmium	<1 J
Chromium	6.23
Copper	5.49
Lead	<1 J
Mercury	<1 J
Nickel	16.8
Silver	<1 J
Zinc	12.8

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	702115-04 x10
Date Analyzed:	02/09/17	Data File:	702115-04 x10.078
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	17.5
Barium	54.3
Cadmium	<10
Chromium	13.0
Copper	<50
Lead	<10
Mercury	<10
Nickel	24.9
Selenium	58.1
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/09/17	Lab ID:	I7-060 mb2
Date Analyzed:	02/09/17	Data File:	I7-060 mb2.021
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW12-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	702115-01
Date Analyzed:	02/13/17	Data File:	702115-01.073
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.10
Barium	8.13
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	5.08
Selenium	1.96
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW9-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	702115-02
Date Analyzed:	02/13/17	Data File:	702115-02.075
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	14.2
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	2.60
Selenium	<1
Silver	<1
Zinc	5.61

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	702115-03
Date Analyzed:	02/13/17	Data File:	702115-03.077
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.76 J
Barium	20.7 J
Cadmium	<1 J
Chromium	2.16 J
Copper	5.31 J
Lead	<1
Mercury	<1
Nickel	22.2 J
Silver	<1 J
Zinc	50.7 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	702115-03 x10
Date Analyzed:	02/14/17	Data File:	702115-03 x10.049
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.2
Barium	18.4
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	23.4
Selenium	39.8
Silver	<10
Zinc	57.0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	702115-04
Date Analyzed:	02/13/17	Data File:	702115-04.079
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14.2 J
Barium	60.0 J
Cadmium	<1 J
Chromium	5.32 J
Copper	7.59 J
Lead	<1 J
Mercury	<1 J
Nickel	24.3 J
Silver	<1 J
Zinc	12.3 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	702115-04 x10
Date Analyzed:	02/15/17	Data File:	702115-04 x10.049
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	15.5
Barium	54.1
Cadmium	<10
Chromium	11.9
Copper	<50
Lead	<10
Mercury	<10
Nickel	27.0
Selenium	59.8
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/10/17	Lab ID:	I7-068 mb
Date Analyzed:	02/14/17	Data File:	I7-068 mb.079
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW12-020717  
 Date Received: 02/08/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: SnoPac 150054, F&BI 702115  
 Lab ID: 702115-01  
 Data File: 021014.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	116	50	150
2-Fluorobiphenyl	92	43	158
2,4,6-Tribromophenol	90	43	146
Terphenyl-d14	111	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW9-020717  
 Date Received: 02/08/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: SnoPac 150054, F&BI 702115  
 Lab ID: 702115-02  
 Data File: 021015.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	116	50	150
2-Fluorobiphenyl	93	43	158
2,4,6-Tribromophenol	94	43	146
Terphenyl-d14	105	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW2-020717  
 Date Received: 02/08/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: SnoPac 150054, F&BI 702115  
 Lab ID: 702115-03  
 Data File: 021016.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66	32	162
Phenol-d6	48	10	170
Nitrobenzene-d5	115	50	150
2-Fluorobiphenyl	92	43	158
2,4,6-Tribromophenol	81	43	146
Terphenyl-d14	109	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW1-020717  
 Date Received: 02/08/17  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: SnoPac 150054, F&BI 702115  
 Lab ID: 702115-04  
 Data File: 021017.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	70	32	162
Phenol-d6	47	10	170
Nitrobenzene-d5	108	50	150
2-Fluorobiphenyl	88	43	158
2,4,6-Tribromophenol	99	43	146
Terphenyl-d14	98	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 02/08/17  
 Date Analyzed: 02/10/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: SnoPac 150054, F&BI 702115  
 Lab ID: 07-280 mb  
 Data File: 021005.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	71	32	162
Phenol-d6	47	10	170
Nitrobenzene-d5	112	50	150
2-Fluorobiphenyl	94	43	158
2,4,6-Tribromophenol	73	43	146
Terphenyl-d14	107	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW12-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-01
Date Analyzed:	02/09/17	Data File:	020929.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	95	31	160
Benzo(a)anthracene-d12	104	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW9-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-02
Date Analyzed:	02/09/17	Data File:	020930.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	31	160
Benzo(a)anthracene-d12	102	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-03
Date Analyzed:	02/09/17	Data File:	020931.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	31	160
Benzo(a)anthracene-d12	105	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	0.73
Acenaphthylene	<0.03
Acenaphthene	0.044
Fluorene	0.044
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	0.24
Pyrene	0.18
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-04
Date Analyzed:	02/09/17	Data File:	020932.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	94	31	160
Benzo(a)anthracene-d12	102	25	165

Compounds:	Concentration ug/L (ppb)
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Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	07-281 mb
Date Analyzed:	02/09/17	Data File:	020905.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	31	160
Benzo(a)anthracene-d12	97	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW12-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-01
Date Analyzed:	02/08/17	Data File:	020821.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	101	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW9-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-02
Date Analyzed:	02/08/17	Data File:	020822.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	102	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-03
Date Analyzed:	02/08/17	Data File:	020823.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-04
Date Analyzed:	02/08/17	Data File:	020824.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	102	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	07-0256 mb
Date Analyzed:	02/08/17	Data File:	020818.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	101	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW12-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-01
Date Analyzed:	02/10/17	Data File:	021009.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW9-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-02
Date Analyzed:	02/10/17	Data File:	021010.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	66	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW2-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-03
Date Analyzed:	02/10/17	Data File:	021011.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW1-020717	Client:	Aspect Consulting, LLC
Date Received:	02/08/17	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	702115-04
Date Analyzed:	02/10/17	Data File:	021012.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	72	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	SnoPac 150054, F&BI 702115
Date Extracted:	02/08/17	Lab ID:	07-283 mb
Date Analyzed:	02/09/17	Data File:	020907.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	107	107	61-133	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 702103-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	2.04	110	112	70-130	2
Barium	ug/L (ppb)	50	21.2	107	106	70-130	1
Cadmium	ug/L (ppb)	5	<1	106	106	70-130	0
Chromium	ug/L (ppb)	20	1.61	102	100	70-130	2
Copper	ug/L (ppb)	20	5.12	97	95	70-130	2
Lead	ug/L (ppb)	10	1.07	95	95	70-130	0
Mercury	ug/L (ppb)	10	<1	104	105	70-130	1
Nickel	ug/L (ppb)	20	2.33	100	98	70-130	2
Selenium	ug/L (ppb)	5	<1	102	105	70-130	3
Silver	ug/L (ppb)	5	<1	107	108	70-130	1
Zinc	ug/L (ppb)	50	62.3	93	90	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	100	85-115
Barium	ug/L (ppb)	50	104	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	104	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	100	85-115
Mercury	ug/L (ppb)	10	108	85-115
Nickel	ug/L (ppb)	20	104	85-115
Selenium	ug/L (ppb)	5	103	85-115
Silver	ug/L (ppb)	5	107	85-115
Zinc	ug/L (ppb)	50	95	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 702082-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.28	101	103	70-130	2
Barium	ug/L (ppb)	50	10.1	98	106	70-130	8
Cadmium	ug/L (ppb)	5	<1	96	102	70-130	6
Chromium	ug/L (ppb)	20	1.60	99	108	70-130	9
Copper	ug/L (ppb)	20	<5	90	95	70-130	5
Lead	ug/L (ppb)	10	<1	91	94	70-130	3
Mercury	ug/L (ppb)	10	<1	91	98	70-130	7
Nickel	ug/L (ppb)	20	3.52	93	98	70-130	5
Selenium	ug/L (ppb)	5	1.83	94	103	70-130	9
Silver	ug/L (ppb)	5	<1	84	92	70-130	9
Zinc	ug/L (ppb)	50	10.2	89	92	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	98	85-115
Barium	ug/L (ppb)	50	99	85-115
Cadmium	ug/L (ppb)	5	103	85-115
Chromium	ug/L (ppb)	20	103	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	104	85-115
Mercury	ug/L (ppb)	10	101	85-115
Nickel	ug/L (ppb)	20	103	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	101	85-115
Zinc	ug/L (ppb)	50	98	85-115

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	48	50	10-84	4
Bis(2-chloroethyl) ether	ug/L (ppb)	10	98	100	52-113	2
2-Chlorophenol	ug/L (ppb)	10	99	99	50-110	0
1,3-Dichlorobenzene	ug/L (ppb)	10	96	98	45-109	2
1,4-Dichlorobenzene	ug/L (ppb)	10	96	97	44-118	1
1,2-Dichlorobenzene	ug/L (ppb)	10	97	98	46-116	1
Benzyl alcohol	ug/L (ppb)	10	93	94	42-100	1
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	99	102	51-124	3
2-Methylphenol	ug/L (ppb)	10	83	87	38-100	5
Hexachloroethane	ug/L (ppb)	10	99	102	42-117	3
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	106	109	48-124	3
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	83	88	40-105	6
Nitrobenzene	ug/L (ppb)	10	105	108	50-118	3
Isophorone	ug/L (ppb)	10	104	108	55-116	4
2-Nitrophenol	ug/L (ppb)	10	113	118	42-127	4
2,4-Dimethylphenol	ug/L (ppb)	10	44	46	11-135	4
Benzoic acid	ug/L (ppb)	65	40	43	10-110	7
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	100	103	55-115	3
2,4-Dichlorophenol	ug/L (ppb)	10	105	108	55-113	3
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	98	50-109	1
Hexachlorobutadiene	ug/L (ppb)	10	96	97	50-109	1
4-Chloroaniline	ug/L (ppb)	20	89	91	30-109	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	102	106	54-114	4
2-Methylnaphthalene	ug/L (ppb)	10	101	104	53-113	3
1-Methylnaphthalene	ug/L (ppb)	10	101	103	70-130	2
Hexachlorocyclopentadiene	ug/L (ppb)	10	69	68	10-121	1
2,4,6-Trichlorophenol	ug/L (ppb)	10	91	98	46-114	7
2,4,5-Trichlorophenol	ug/L (ppb)	10	93	99	57-122	6
2-Chloronaphthalene	ug/L (ppb)	10	85	88	52-112	3
2-Nitroaniline	ug/L (ppb)	10	90	94	47-128	4
Dimethyl phthalate	ug/L (ppb)	10	96	98	55-116	2
2,6-Dinitrotoluene	ug/L (ppb)	10	96	100	49-126	4
3-Nitroaniline	ug/L (ppb)	20	85	89	21-125	5
2,4-Dinitrophenol	ug/L (ppb)	10	88	101	29-130	14
Dibenzofuran	ug/L (ppb)	10	85	89	53-113	5
2,4-Dinitrotoluene	ug/L (ppb)	10	86	91	48-129	6
4-Nitrophenol	ug/L (ppb)	10	45	47	10-80	4
Diethyl phthalate	ug/L (ppb)	10	97	100	55-116	3
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	85	89	52-115	5
N-Nitrosodiphenylamine	ug/L (ppb)	10	99	103	51-112	4
4-Nitroaniline	ug/L (ppb)	20	86	92	42-115	7
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	102	113	40-128	10
4-Bromophenyl phenyl ether	ug/L (ppb)	10	98	102	53-114	4
Hexachlorobenzene	ug/L (ppb)	10	95	99	54-115	4
Pentachlorophenol	ug/L (ppb)	10	101	113	49-114	11
Carbazole	ug/L (ppb)	10	100	106	54-115	6
Di-n-butyl phthalate	ug/L (ppb)	10	110	118 vo	54-115	7
Benzyl butyl phthalate	ug/L (ppb)	10	100	106	53-122	6
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	96	114	54-122	17
Di-n-octyl phthalate	ug/L (ppb)	10	110	119	50-131	8

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ENVIRONMENTAL CHEMISTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	93	92	67-116	1
Acenaphthylene	ug/L (ppb)	1	92	93	65-119	1
Acenaphthene	ug/L (ppb)	1	92	93	66-118	1
Fluorene	ug/L (ppb)	1	95	97	64-125	2
Phenanthrene	ug/L (ppb)	1	93	95	67-120	2
Anthracene	ug/L (ppb)	1	93	97	65-122	4
Fluoranthene	ug/L (ppb)	1	95	102	65-127	7
Pyrene	ug/L (ppb)	1	92	85	62-130	8
Benz(a)anthracene	ug/L (ppb)	1	94	96	60-118	2
Chrysene	ug/L (ppb)	1	92	95	66-125	3
Benzo(b)fluoranthene	ug/L (ppb)	1	91	92	55-135	1
Benzo(k)fluoranthene	ug/L (ppb)	1	94	92	62-125	2
Benzo(a)pyrene	ug/L (ppb)	1	90	91	58-127	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	86	90	36-142	5
Dibenz(a,h)anthracene	ug/L (ppb)	1	73	82	37-133	12
Benzo(g,h,i)perylene	ug/L (ppb)	1	76	83	34-135	9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

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

Laboratory Code: 702098-10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Hexane	ug/L (ppb)	50	<1	84	52-150
Benzene	ug/L (ppb)	50	<0.35	96	76-125
Toluene	ug/L (ppb)	50	<1	96	76-122
Ethylbenzene	ug/L (ppb)	50	<1	98	69-135
m,p-Xylene	ug/L (ppb)	100	<2	99	69-135
o-Xylene	ug/L (ppb)	50	<1	100	60-140

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Hexane	ug/L (ppb)	50	86	82	57-137	5
Benzene	ug/L (ppb)	50	94	94	69-134	0
Toluene	ug/L (ppb)	50	95	95	72-122	0
Ethylbenzene	ug/L (ppb)	50	97	97	77-124	0
m,p-Xylene	ug/L (ppb)	100	98	98	83-125	0
o-Xylene	ug/L (ppb)	50	99	99	81-121	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/17/17

Date Received: 02/08/17

Project: SnoPac 150054, F&BI 702115

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	66	77	37-136	15
Aroclor 1260	ug/L (ppb)	2.5	67	77	41-135	14

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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.
- 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.

Sillcot

Report To Forest Lenkley

Company Aspect Consulting

Address 401 2nd Ave. S, STE 201

City, State, ZIP Seattle, WA 98101  
Phone (206) 555-1234 Email KarenK@AOL.COM

## SAMPLE CHAIN OF CUSTODY

ME 080/80 17

SAMPLERS (*signature*)

**PROJECT NAME**

SNEDAR 150054

REMARKS EACH NAME HAS 1- INVOICE TO

**150 ml PAY THAT IT  
FIERO FASTER** (new  
[SULTANSON.COM](http://SULTANSON.COM) ON LINE)

a man kind

<b>TURNAROUND TIME</b>	
<input checked="" type="checkbox"/>	Standard Turnaround
<input type="checkbox"/>	RUSH
Rush charges authorized by: _____	
<b>SAMPLE DISPOSAL</b>	
<input checked="" type="checkbox"/>	Dispose after 30 days
<input type="checkbox"/>	Archive Samples
<input type="checkbox"/>	Other _____

Friedman & Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

my bag / case

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

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February 20, 2017

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on February 9, 2017 from the Snopac 150054, F&BI 702148 project. There are 45 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0220R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on February 9, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 702148 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
702148 -01	MW3-020817
702148 -02	MW8-020817
702148 -03	MW10-020817
702148 -04	MW11-020817

A 200.8 internal standard failed the acceptance criteria for total and dissolved analysis of samples MW3-020817 and MW11-020817 due to matrix interferences. The data were flagged accordingly. The samples were diluted and reanalyzed. Furthermore, due to the interferences, selenium could only be reported from the diluted analysis of the samples and total copper could only be reported from the dilution of sample MW11-020817.

Di-n-butyl phthalate in the 8270D laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. In addition, the laboratory control sample and laboratory control sample duplicate hexachloroethane relative percent difference exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

Date Extracted: 02/10/17

Date Analyzed: 02/10/17

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> <u>Laboratory ID</u>	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW3-020817 702148-01 1/1.4	<70	<350	91
MW8-020817 702148-02	110 x	<250	100
MW10-020817 702148-03	<50	<250	100
MW11-020817 702148-04	100 x	<250	96
Method Blank 07-296 MB	<50	<250	92

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-01
Date Analyzed:	02/13/17	Data File:	702148-01.081
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.6 J
Barium	11.6 J
Cadmium	<1 J
Chromium	<1 J
Copper	8.88 J
Lead	<1 J
Mercury	<1 J
Nickel	9.81 J
Silver	<1 J
Zinc	15.3 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-01 x10
Date Analyzed:	02/14/17	Data File:	702148-01 x10.055
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	15.6
Barium	<10
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	62.3
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW8-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-02
Date Analyzed:	02/13/17	Data File:	702148-02.083
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.42
Barium	16.4
Cadmium	<1
Chromium	1.12
Copper	<5
Lead	<1
Mercury	<1
Nickel	3.53
Silver	<1
Zinc	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW8-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-02 x5
Date Analyzed:	02/16/17	Data File:	702148-02 x5.089
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Concentration  
ug/L (ppb)

Analyte: Selenium

7.74

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW10-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-03
Date Analyzed:	02/14/17	Data File:	702148-03.044
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	2.69
Cadmium	<1
Chromium	1.96
Copper	<5
Lead	<1
Mercury	<1
Nickel	1.06
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-04
Date Analyzed:	02/13/17	Data File:	702148-04.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.8 J
Barium	23.1 J ca
Cadmium	<1 J
Chromium	<1 J
Copper	11.8 J
Lead	<1 J
Mercury	<1 J
Nickel	5.34 J
Silver	<1 J ca
Zinc	18.8 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-04 x10
Date Analyzed:	02/14/17	Data File:	702148-04 x10.058
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14.4
Barium	19.6
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	55.2
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	I7-068 mb
Date Analyzed:	02/14/17	Data File:	I7-068 mb.079
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-01
Date Analyzed:	02/13/17	Data File:	702148-01.107
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	18.8 J
Barium	12.4 ca J
Cadmium	<1 J
Chromium	1.89 J
Copper	10.9 J
Lead	<1
Mercury	<1
Nickel	11.4 J
Silver	<1 ca J
Zinc	18.0 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-01 x10
Date Analyzed:	02/14/17	Data File:	702148-01 x10.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	15.7
Barium	11.1
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	10.5
Selenium	61.3
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW8-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-02
Date Analyzed:	02/14/17	Data File:	702148-02.045
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.41
Barium	14.9
Cadmium	<1
Chromium	1.23
Copper	<5
Lead	<1
Mercury	<1
Nickel	2.95
Selenium	7.43
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW10-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-03
Date Analyzed:	02/14/17	Data File:	702148-03.046
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.15
Barium	5.82
Cadmium	<1
Chromium	4.71
Copper	<5
Lead	<1
Mercury	<1
Nickel	2.10
Selenium	1.06
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-04
Date Analyzed:	02/13/17	Data File:	702148-04.113
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	20.0 J
Barium	25.5 ca J
Cadmium	<1 J
Chromium	2.61 J
Lead	6.61
Mercury	<1
Nickel	6.67 J
Silver	<1 ca J
Zinc	34.6 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-04 x10
Date Analyzed:	02/14/17	Data File:	702148-04 x10.064
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	18.9
Barium	22.2
Cadmium	<10
Chromium	<10
Copper	<50
Lead	10.3
Mercury	<10
Nickel	<10
Selenium	51.0
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	I7-069 mb
Date Analyzed:	02/13/17	Data File:	I7-069 mb.041
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-01
Date Analyzed:	02/10/17	Data File:	021019.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	100	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW8-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-02
Date Analyzed:	02/10/17	Data File:	021020.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW10-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-03
Date Analyzed:	02/10/17	Data File:	021036.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	702148-04
Date Analyzed:	02/10/17	Data File:	021037.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	97	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/10/17	Lab ID:	07-0261 mb
Date Analyzed:	02/10/17	Data File:	021010.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	101	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW3-020817  
 Date Received: 02/09/17  
 Date Extracted: 02/14/17  
 Date Analyzed: 02/15/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702148  
 Lab ID: 702148-01  
 Data File: 021506.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	62	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	114	50	150
2-Fluorobiphenyl	92	43	158
2,4,6-Tribromophenol	79	43	146
Terphenyl-d14	104	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW8-020817  
 Date Received: 02/09/17  
 Date Extracted: 02/14/17  
 Date Analyzed: 02/15/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702148  
 Lab ID: 702148-02  
 Data File: 021507.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	34	32	162
Phenol-d6	35	10	170
Nitrobenzene-d5	112	50	150
2-Fluorobiphenyl	91	43	158
2,4,6-Tribromophenol	53	43	146
Terphenyl-d14	108	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW10-020817  
 Date Received: 02/09/17  
 Date Extracted: 02/14/17  
 Date Analyzed: 02/15/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702148  
 Lab ID: 702148-03  
 Data File: 021508.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	42	32	162
Phenol-d6	37	10	170
Nitrobenzene-d5	115	50	150
2-Fluorobiphenyl	91	43	158
2,4,6-Tribromophenol	63	43	146
Terphenyl-d14	97	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW11-020817  
 Date Received: 02/09/17  
 Date Extracted: 02/14/17  
 Date Analyzed: 02/15/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702148  
 Lab ID: 702148-04  
 Data File: 021509.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	60	32	162
Phenol-d6	43	10	170
Nitrobenzene-d5	114	50	150
2-Fluorobiphenyl	89	43	158
2,4,6-Tribromophenol	92	43	146
Terphenyl-d14	99	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 02/14/17  
 Date Analyzed: 02/15/17  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 702148  
 Lab ID: 07-305 mb  
 Data File: 021505.D  
 Instrument: GCMS8  
 Operator: ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	53	32	162
Phenol-d6	38	10	170
Nitrobenzene-d5	101	50	150
2-Fluorobiphenyl	80	43	158
2,4,6-Tribromophenol	60	43	146
Terphenyl-d14	97	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/14/17	Lab ID:	702148-01
Date Analyzed:	02/15/17	Data File:	021506.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	31	160
Benzo(a)anthracene-d12	104	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	0.59
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	0.052
Fluoranthene	0.27
Pyrene	0.062
Benz(a)anthracene	<0.03
Chrysene	0.050
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	0.042
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW8-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/14/17	Lab ID:	702148-02
Date Analyzed:	02/15/17	Data File:	021507.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	31	160
Benzo(a)anthracene-d12	100	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW10-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/14/17	Lab ID:	702148-03
Date Analyzed:	02/15/17	Data File:	021508.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	88	31	160
Benzo(a)anthracene-d12	98	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/14/17	Lab ID:	702148-04
Date Analyzed:	02/15/17	Data File:	021509.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	94	31	160
Benzo(a)anthracene-d12	100	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	0.044
Anthracene	<0.03
Fluoranthene	0.082
Pyrene	0.11
Benz(a)anthracene	0.046
Chrysene	0.073
Benzo(a)pyrene	0.072
Benzo(b)fluoranthene	0.11
Benzo(k)fluoranthene	0.035
Indeno(1,2,3-cd)pyrene	0.053
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	0.062

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/14/17	Lab ID:	07-304 mb
Date Analyzed:	02/15/17	Data File:	021505.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	31	160
Benzo(a)anthracene-d12	98	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW3-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-01
Date Analyzed:	02/14/17	Data File:	021410.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	51	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW8-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-02
Date Analyzed:	02/14/17	Data File:	021411.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	61	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW10-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-03
Date Analyzed:	02/14/17	Data File:	021412.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	55	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW11-020817	Client:	Aspect Consulting, LLC
Date Received:	02/09/17	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	702148-04
Date Analyzed:	02/14/17	Data File:	021413.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	57	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 702148
Date Extracted:	02/13/17	Lab ID:	07-300 mb
Date Analyzed:	02/14/17	Data File:	021407.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	55	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	104	102	58-134	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 702082-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.28	101	103	70-130	2
Barium	ug/L (ppb)	50	10.1	98	106	70-130	8
Cadmium	ug/L (ppb)	5	<1	96	102	70-130	6
Chromium	ug/L (ppb)	20	1.60	99	108	70-130	9
Copper	ug/L (ppb)	20	<5	90	95	70-130	5
Lead	ug/L (ppb)	10	<1	91	94	70-130	3
Mercury	ug/L (ppb)	10	<1	91	98	70-130	7
Nickel	ug/L (ppb)	20	3.52	93	98	70-130	5
Selenium	ug/L (ppb)	5	1.83	94	103	70-130	9
Silver	ug/L (ppb)	5	<1	84	92	70-130	9
Zinc	ug/L (ppb)	50	10.2	89	92	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	98	85-115
Barium	ug/L (ppb)	50	99	85-115
Cadmium	ug/L (ppb)	5	103	85-115
Chromium	ug/L (ppb)	20	103	85-115
Copper	ug/L (ppb)	20	103	85-115
Lead	ug/L (ppb)	10	104	85-115
Mercury	ug/L (ppb)	10	101	85-115
Nickel	ug/L (ppb)	20	103	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	101	85-115
Zinc	ug/L (ppb)	50	98	85-115

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 702185-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.88	96	92	70-130	4
Barium	ug/L (ppb)	50	26.5	106	104	70-130	2
Cadmium	ug/L (ppb)	5	<1	103	102	70-130	1
Chromium	ug/L (ppb)	20	1.40	102	102	70-130	0
Copper	ug/L (ppb)	20	<5	96	97	70-130	1
Lead	ug/L (ppb)	10	<1	92	90	70-130	2
Mercury	ug/L (ppb)	10	<1	93	91	70-130	2
Nickel	ug/L (ppb)	20	2.54	100	98	70-130	2
Selenium	ug/L (ppb)	5	<1	95	96	70-130	1
Silver	ug/L (ppb)	5	<1	96	93	70-130	3
Zinc	ug/L (ppb)	50	122	96	96	70-130	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	98	85-115
Barium	ug/L (ppb)	50	99	85-115
Cadmium	ug/L (ppb)	5	101	85-115
Chromium	ug/L (ppb)	20	101	85-115
Copper	ug/L (ppb)	20	97	85-115
Lead	ug/L (ppb)	10	102	85-115
Mercury	ug/L (ppb)	10	98	85-115
Nickel	ug/L (ppb)	20	98	85-115
Selenium	ug/L (ppb)	5	98	85-115
Silver	ug/L (ppb)	5	102	85-115
Zinc	ug/L (ppb)	50	95	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

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

Laboratory Code: 702147-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Hexane	ug/L (ppb)	50	<1	76	52-150
Benzene	ug/L (ppb)	50	<0.35	90	76-125
Toluene	ug/L (ppb)	50	<1	90	76-122
Ethylbenzene	ug/L (ppb)	50	<1	95	69-135
m,p-Xylene	ug/L (ppb)	100	<2	96	69-135
o-Xylene	ug/L (ppb)	50	<1	98	60-140

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Hexane	ug/L (ppb)	50	88	90	57-137	2
Benzene	ug/L (ppb)	50	91	91	69-134	0
Toluene	ug/L (ppb)	50	92	90	72-122	2
Ethylbenzene	ug/L (ppb)	50	94	92	77-124	2
m,p-Xylene	ug/L (ppb)	100	95	94	83-125	1
o-Xylene	ug/L (ppb)	50	95	95	81-121	0

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	47	48	10-84	2
Bis(2-chloroethyl) ether	ug/L (ppb)	10	103	98	52-113	5
2-Chlorophenol	ug/L (ppb)	10	98	97	50-110	1
1,3-Dichlorobenzene	ug/L (ppb)	10	99	82	45-109	19
1,4-Dichlorobenzene	ug/L (ppb)	10	99	82	44-118	19
1,2-Dichlorobenzene	ug/L (ppb)	10	99	84	46-116	16
Benzyl alcohol	ug/L (ppb)	10	90	88	42-100	2
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	105	99	51-124	6
2-Methylphenol	ug/L (ppb)	10	86	84	38-100	2
Hexachloroethane	ug/L (ppb)	10	104	84	42-117	21 vo
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	107	99	48-124	8
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	80	79	40-105	1
Nitrobenzene	ug/L (ppb)	10	109	104	50-118	5
Isophorone	ug/L (ppb)	10	104	100	55-116	4
2-Nitrophenol	ug/L (ppb)	10	116	113	42-127	3
2,4-Dimethylphenol	ug/L (ppb)	10	70	67	11-135	4
Benzoic acid	ug/L (ppb)	65	35	38	10-110	8
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	100	95	55-115	5
2,4-Dichlorophenol	ug/L (ppb)	10	106	102	55-113	4
1,2,4-Trichlorobenzene	ug/L (ppb)	10	98	85	50-109	14
Hexachlorobutadiene	ug/L (ppb)	10	96	80	50-109	18
4-Chloroaniline	ug/L (ppb)	20	85	86	30-109	1
4-Chloro-3-methylphenol	ug/L (ppb)	10	106	104	54-114	2
2-Methylnaphthalene	ug/L (ppb)	10	101	94	53-113	7
1-Methylnaphthalene	ug/L (ppb)	10	101	95	70-130	6
Hexachlorocyclopentadiene	ug/L (ppb)	10	82	71	10-121	14
2,4,6-Trichlorophenol	ug/L (ppb)	10	97	93	46-114	4
2,4,5-Trichlorophenol	ug/L (ppb)	10	98	96	57-122	2
2-Chloronaphthalene	ug/L (ppb)	10	85	81	52-112	5
2-Nitroaniline	ug/L (ppb)	10	93	92	47-128	1
Dimethyl phthalate	ug/L (ppb)	10	96	94	55-116	2
2,6-Dinitrotoluene	ug/L (ppb)	10	97	96	49-126	1
3-Nitroaniline	ug/L (ppb)	20	87	88	21-125	1
2,4-Dinitrophenol	ug/L (ppb)	10	98	99	29-130	1
Dibenzofuran	ug/L (ppb)	10	87	85	53-113	2
2,4-Dinitrotoluene	ug/L (ppb)	10	88	88	48-129	0
4-Nitrophenol	ug/L (ppb)	10	46	48	10-80	4
Diethyl phthalate	ug/L (ppb)	10	98	96	55-116	2
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	87	85	52-115	2
N-Nitrosodiphenylamine	ug/L (ppb)	10	100	97	51-112	3
4-Nitroaniline	ug/L (ppb)	20	93	94	42-115	1
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	109	109	40-128	0
4-Bromophenyl phenyl ether	ug/L (ppb)	10	99	95	53-114	4
Hexachlorobenzene	ug/L (ppb)	10	96	93	54-115	3
Pentachlorophenol	ug/L (ppb)	10	109	107	49-114	2
Carbazole	ug/L (ppb)	10	104	103	54-115	1
Di-n-butyl phthalate	ug/L (ppb)	10	118 vo	118 vo	54-115	0
Benzyl butyl phthalate	ug/L (ppb)	10	110	106	53-122	4
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	97	96	54-122	1
Di-n-octyl phthalate	ug/L (ppb)	10	121	121	50-131	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	93	97	67-116	4
Acenaphthylene	ug/L (ppb)	1	95	98	65-119	3
Acenaphthene	ug/L (ppb)	1	95	97	66-118	2
Fluorene	ug/L (ppb)	1	99	102	64-125	3
Phenanthrene	ug/L (ppb)	1	95	97	67-120	2
Anthracene	ug/L (ppb)	1	93	100	65-122	7
Fluoranthene	ug/L (ppb)	1	97	101	65-127	4
Pyrene	ug/L (ppb)	1	96	95	62-130	1
Benz(a)anthracene	ug/L (ppb)	1	101	101	60-118	0
Chrysene	ug/L (ppb)	1	101	100	66-125	1
Benzo(b)fluoranthene	ug/L (ppb)	1	97	102	55-135	5
Benzo(k)fluoranthene	ug/L (ppb)	1	96	100	62-125	4
Benzo(a)pyrene	ug/L (ppb)	1	91	95	58-127	4
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	82	84	36-142	2
Dibenz(a,h)anthracene	ug/L (ppb)	1	66	79	37-133	18
Benzo(g,h,i)perylene	ug/L (ppb)	1	75	81	34-135	8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/20/17

Date Received: 02/09/17

Project: Snopac 150054, F&BI 702148

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample 1/0.25

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	58	66	37-136	13
Aroclor 1260	ug/L (ppb)	2.5	52	61	41-135	16

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

Shilgot

Report To Mr. Kress Lomley

Company Frederick L. Converse

Address 401 2nd Ave. S., Seattle

City, State, ZIP Sparta, WI 54656

## SAMPLE CHAIN OF CUSTODY

PROJECT NAME		PO #
<u>SNOPE 150054</u>		<u>-</u>
REMARKS	INVOICE TO a/c payable	
<u>- Thanks -</u>		
<u>www.rid.com</u>		

Page #	of
<b>TURNAROUND TIME</b>	
<input checked="" type="checkbox"/> Standard Turnaround <input type="checkbox"/> RUSH _____ Rush charges authorized by: _____	
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<b>SAMPLE DISPOSAL</b>	
<input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other _____	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>Eric Kwoerner</i>	Eric Kwoerner	Astar	2/9/17	900
Received by: <i>D. Sams</i>	D. Sams	Reflex Soc	2/9	11:52
Relinquished by: <i>M. Khan</i>	M. Khan	Fe BI	2/9/17	1250
Received by: <i>M. Khan</i>	M. Khan	Pham		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

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Yelena Aravkina, M.S.  
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February 8, 2018

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 31, 2018 from the Snopac 150054, F&BI 801427 project. There are 57 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0208R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 31, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac 150054, F&BI 801427 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
801427 -01	MW-02-20180130
801427 -02	MW-07-20180130
801427 -03	MW-09-20180130
801427 -04	MW-10-20180130
801427 -05	MW-03-20180130

The 200.8 total and dissolved arsenic and selenium calibration standards as well as the internal standards failed the acceptance criteria for samples MW-02-20180130, MW-07-20180130, and MW-03-20180130 due to matrix interferences. The data were flagged accordingly. The matrix interferences were likely due to brackish water. The samples were diluted and reanalyzed.

The 200.8 silver calibration standard did not pass the acceptance criteria in samples MW-09-20180130 and MW-10-20180130. The data were flagged accordingly. The samples were reanalyzed and silver was reported without a qualifier.

4-Nitroaniline in the 8270D laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

An 8270D internal standard failed the acceptance criteria for sample MW-10-20180130 due to matrix interferences. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

Date Extracted: 02/01/18

Date Analyzed: 02/01/18

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-02-20180130 801427-01	<50	<250	105
MW-07-20180130 801427-02	88 x	<250	99
MW-09-20180130 801427-03	<50	<250	92
MW-10-20180130 801427-04	<50	<250	94
MW-03-20180130 801427-05	<50	<250	97
Method Blank 08-265 MB	<50	<250	99

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-01
Date Analyzed:	02/01/18	Data File:	801427-01.116
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	7.69 J ca
Barium	8.49 J
Cadmium	<1 J
Chromium	1.42 J
Copper	<5 J
Lead	<1 J
Mercury	<1 J
Nickel	3.62 J
Selenium	<65 J ca
Silver	<1 J
Zinc	12.3 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-01 x10
Date Analyzed:	02/02/18	Data File:	801427-01 x10.108
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	<10
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	25.2
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-02
Date Analyzed:	02/01/18	Data File:	801427-02.122
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	6.68 J ca
Barium	24.7 J
Cadmium	<1 J
Chromium	1.57
Copper	<5
Lead	<1 J
Mercury	<1 J
Nickel	5.71
Selenium	<10 J ca
Silver	<1 J
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-02 x10
Date Analyzed:	02/02/18	Data File:	801427-02 x10.109
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	22.5
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	12.4
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-03 rr
Date Analyzed:	02/07/18	Data File:	801427-03 rr.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.01
Barium	58.3
Cadmium	<1
Chromium	1.03
Copper	<5
Lead	<1
Mercury	<1
Nickel	16.3
Selenium	7.61
Silver	<1 ca
Zinc	10.0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-03
Date Analyzed:	02/01/18	Data File:	801427-03.123
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Concentration  
ug/L (ppb)

Analyte: Silver <1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-04 rr
Date Analyzed:	02/07/18	Data File:	801427-04 rr.089
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	3.13
Cadmium	<1
Chromium	1.73
Copper	<5
Lead	<1
Mercury	<1
Nickel	1.19
Selenium	<1
Silver	<1 ca
Zinc	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-04
Date Analyzed:	02/01/18	Data File:	801427-04.124
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Concentration  
ug/L (ppb)

Analyte: Silver <1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-05
Date Analyzed:	02/01/18	Data File:	801427-05.125
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.95 J ca
Barium	5.25 J
Cadmium	<1 J
Chromium	4.62 J
Copper	5.10 J
Lead	<1 J
Mercury	<1 J
Nickel	2.55 J
Selenium	<75 J ca
Silver	<1 J
Zinc	7.49 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-05 x10
Date Analyzed:	02/02/18	Data File:	801427-05 x10.118
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	<10
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	25.3
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	I8-078 mb
Date Analyzed:	02/02/18	Data File:	I8-078 mb.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-01
Date Analyzed:	02/01/18	Data File:	801427-01.140
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	11.3 J ca
Barium	11.1 J
Cadmium	<1 J
Chromium	23.7 J
Copper	11.3 J
Lead	<1 J
Mercury	<1 J
Nickel	4.87 J
Selenium	<110 J ca
Silver	<1 J
Zinc	18.1 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-01 x10
Date Analyzed:	02/02/18	Data File:	801427-01 x10.122
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	11.2
Barium	10.8
Cadmium	<10
Chromium	25.9
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	26.4
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-02
Date Analyzed:	02/01/18	Data File:	801427-02.141
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	6.38 ca
Barium	24.7
Cadmium	<1
Chromium	2.38
Copper	5.05
Lead	<1
Mercury	<1
Nickel	6.74
Selenium	<15 ca
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-02 x10
Date Analyzed:	02/02/18	Data File:	801427-02 x10.123
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	24.3
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	12.9
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-03 rr
Date Analyzed:	02/07/18	Data File:	801427-03 rr.105
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.92
Barium	52.7
Cadmium	<1
Chromium	1.09
Copper	<5
Lead	<1
Mercury	<1
Nickel	15.2
Selenium	6.53
Silver	<1 ca
Zinc	8.75

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-03
Date Analyzed:	02/01/18	Data File:	801427-03.142
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Silver	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-04
Date Analyzed:	02/07/18	Data File:	801427-04.106
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	3.37
Cadmium	<1
Chromium	2.16
Copper	<5
Lead	<1
Mercury	<1
Nickel	1.35
Selenium	<1
Silver	<1 ca
Zinc	6.70

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-04
Date Analyzed:	02/01/18	Data File:	801427-04.143
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Silver	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-05
Date Analyzed:	02/01/18	Data File:	801427-05.144
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	15.1 J ca
Barium	9.90 J
Cadmium	<1 J
Chromium	129 J
Copper	21.3 J
Lead	3.23 J
Mercury	<1 J
Nickel	7.24 J
Selenium	<65 J ca
Silver	<1 J
Zinc	20.8 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	801427-05 x10
Date Analyzed:	02/02/18	Data File:	801427-05 x10.129
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	13.5
Barium	<10
Cadmium	<10
Chromium	122
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	24.9
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac 150054, F&BI 801427
Date Extracted:	02/01/18	Lab ID:	I8-077 mb
Date Analyzed:	02/02/18	Data File:	I8-077 mb.043
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-01
Date Analyzed:	01/31/18	Data File:	013126.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	97	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-02
Date Analyzed:	02/01/18	Data File:	020105.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	100	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-03
Date Analyzed:	02/01/18	Data File:	020106.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-04
Date Analyzed:	02/01/18	Data File:	020107.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-05
Date Analyzed:	02/01/18	Data File:	020108.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	08-0213 mb
Date Analyzed:	01/31/18	Data File:	013108.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-01
Date Analyzed:	02/02/18	Data File:	020218.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	31	160
Benzo(a)anthracene-d12	100	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	8.6 ve
Acenaphthylene	<0.03
Acenaphthene	0.054
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	0.37
Pyrene	0.25
Benz(a)anthracene	0.032
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	0.030
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-01 1/10
Date Analyzed:	02/05/18	Data File:	020505.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	123 d	31	160
Benzo(a)anthracene-d12	104 d	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	10
Acenaphthylene	<0.3
Acenaphthene	<0.3
Fluorene	<0.3
Phenanthrene	<0.3
Anthracene	<0.3
Fluoranthene	0.40
Pyrene	<0.3
Benz(a)anthracene	<0.3
Chrysene	<0.3
Benzo(a)pyrene	<0.3
Benzo(b)fluoranthene	<0.3
Benzo(k)fluoranthene	<0.3
Indeno(1,2,3-cd)pyrene	<0.3
Dibenz(a,h)anthracene	<0.3
Benzo(g,h,i)perylene	<0.3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-02
Date Analyzed:	02/02/18	Data File:	020219.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	31	160
Benzo(a)anthracene-d12	104	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-03
Date Analyzed:	02/02/18	Data File:	020220.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96	31	160
Benzo(a)anthracene-d12	102	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-04
Date Analyzed:	02/02/18	Data File:	020221.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	99	31	160
Benzo(a)anthracene-d12	103	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-05
Date Analyzed:	02/02/18	Data File:	020222.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	95	31	160
Benzo(a)anthracene-d12	97	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	0.080
Pyrene	0.14
Benz(a)anthracene	0.068
Chrysene	0.15
Benzo(a)pyrene	0.14
Benzo(b)fluoranthene	0.20
Benzo(k)fluoranthene	0.060
Indeno(1,2,3-cd)pyrene	0.10
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	0.13

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	08-256 mb
Date Analyzed:	02/01/18	Data File:	020129.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	31	160
Benzo(a)anthracene-d12	98	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-01
Date Analyzed:	02/01/18	Data File:	020115.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66	32	162
Phenol-d6	42	10	170
Nitrobenzene-d5	106	50	150
2-Fluorobiphenyl	99	43	158
2,4,6-Tribromophenol	103	43	146
Terphenyl-d14	99	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-02
Date Analyzed:	02/01/18	Data File:	020116.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	73	32	162
Phenol-d6	44	10	170
Nitrobenzene-d5	107	50	150
2-Fluorobiphenyl	102	43	158
2,4,6-Tribromophenol	120	43	146
Terphenyl-d14	118	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-03
Date Analyzed:	02/01/18	Data File:	020117.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76	32	162
Phenol-d6	48	10	170
Nitrobenzene-d5	110	50	150
2-Fluorobiphenyl	102	43	158
2,4,6-Tribromophenol	107	43	146
Terphenyl-d14	108	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-04
Date Analyzed:	02/01/18	Data File:	020118.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66	32	162
Phenol-d6	45	10	170
Nitrobenzene-d5	111	50	150
2-Fluorobiphenyl	101	43	158
2,4,6-Tribromophenol	113	43	146
Terphenyl-d14	124	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-05
Date Analyzed:	02/01/18	Data File:	020119.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	32	162
Phenol-d6	49	10	170
Nitrobenzene-d5	107	50	150
2-Fluorobiphenyl	100	43	158
2,4,6-Tribromophenol	108	43	146
Terphenyl-d14	111	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac 150054, F&BI 801427  
 Lab ID: 08-257 mb  
 Data File: 020106.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	63	32	162
Phenol-d6	37	10	170
Nitrobenzene-d5	104	50	150
2-Fluorobiphenyl	100	43	158
2,4,6-Tribromophenol	87	43	146
Terphenyl-d14	100	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW-02-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-01
Date Analyzed:	02/01/18	Data File:	020125.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	65	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW-07-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-02
Date Analyzed:	02/01/18	Data File:	020126.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	61	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW-09-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-03
Date Analyzed:	02/01/18	Data File:	020127.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	77	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW-10-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-04
Date Analyzed:	02/01/18	Data File:	020128.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	62	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW-03-20180130	Client:	Aspect Consulting, LLC
Date Received:	01/31/18	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	801427-05
Date Analyzed:	02/01/18	Data File:	020129.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	60	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac 150054, F&BI 801427
Date Extracted:	01/31/18	Lab ID:	08-261 mb
Date Analyzed:	02/01/18	Data File:	020108.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	24	127

Compounds:	Concentration ug/L (ppb)
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Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	104	58-134	8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 801405-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	112	108	70-130	4
Barium	ug/L (ppb)	50	14.5	109	103	70-130	6
Cadmium	ug/L (ppb)	5	<10	107	103	70-130	4
Chromium	ug/L (ppb)	20	<10	101	96	70-130	5
Copper	ug/L (ppb)	20	<50	97	92	70-130	5
Lead	ug/L (ppb)	10	<10	94	89	70-130	5
Mercury	ug/L (ppb)	5	<10	79	75	70-130	5
Nickel	ug/L (ppb)	20	<10	98	92	70-130	6
Selenium	ug/L (ppb)	5	<10	97	95	70-130	2
Silver	ug/L (ppb)	5	<10	93	86	70-130	8
Zinc	ug/L (ppb)	50	<50	98	94	70-130	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	106	85-115
Barium	ug/L (ppb)	50	106	85-115
Cadmium	ug/L (ppb)	5	107	85-115
Chromium	ug/L (ppb)	20	101	85-115
Copper	ug/L (ppb)	20	102	85-115
Lead	ug/L (ppb)	10	101	85-115
Mercury	ug/L (ppb)	5	94	85-115
Nickel	ug/L (ppb)	20	101	85-115
Selenium	ug/L (ppb)	5	100	85-115
Silver	ug/L (ppb)	5	103	85-115
Zinc	ug/L (ppb)	50	102	85-115

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 801430-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	3.22	109	110	70-130	1
Barium	ug/L (ppb)	50	31.5	106	108	70-130	2
Cadmium	ug/L (ppb)	5	<1	107	106	70-130	1
Chromium	ug/L (ppb)	20	1.05	101	100	70-130	1
Copper	ug/L (ppb)	20	5.39	99	98	70-130	1
Lead	ug/L (ppb)	10	1.68	94	94	70-130	0
Mercury	ug/L (ppb)	5	<1	93	94	70-130	1
Nickel	ug/L (ppb)	20	2.03	99	99	70-130	0
Selenium	ug/L (ppb)	5	<1	104	106	70-130	2
Silver	ug/L (ppb)	5	<1	100	99	70-130	1
Zinc	ug/L (ppb)	50	12.8	103	101	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	108	85-115
Barium	ug/L (ppb)	50	102	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	94	85-115
Copper	ug/L (ppb)	20	101	85-115
Lead	ug/L (ppb)	10	97	85-115
Mercury	ug/L (ppb)	5	96	85-115
Nickel	ug/L (ppb)	20	99	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	100	85-115
Zinc	ug/L (ppb)	50	103	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

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

Laboratory Code: 801398-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Hexane	ug/L (ppb)	50	<1	97	52-150
Benzene	ug/L (ppb)	50	<0.35	99	76-125
Toluene	ug/L (ppb)	50	<1	96	76-122
Ethylbenzene	ug/L (ppb)	50	<1	96	69-135
m,p-Xylene	ug/L (ppb)	100	<2	96	69-135
o-Xylene	ug/L (ppb)	50	<1	95	60-140

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Hexane	ug/L (ppb)	50	110	108	57-137	2
Benzene	ug/L (ppb)	50	103	104	69-134	1
Toluene	ug/L (ppb)	50	100	99	72-122	1
Ethylbenzene	ug/L (ppb)	50	100	101	77-124	1
m,p-Xylene	ug/L (ppb)	100	101	101	83-125	0
o-Xylene	ug/L (ppb)	50	99	100	81-121	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	92	92	67-116	0
Acenaphthylene	ug/L (ppb)	1	91	92	65-119	1
Acenaphthene	ug/L (ppb)	1	91	91	66-118	0
Fluorene	ug/L (ppb)	1	95	95	64-125	0
Phenanthrene	ug/L (ppb)	1	92	93	67-120	1
Anthracene	ug/L (ppb)	1	92	95	65-122	3
Fluoranthene	ug/L (ppb)	1	95	96	65-127	1
Pyrene	ug/L (ppb)	1	93	95	62-130	2
Benz(a)anthracene	ug/L (ppb)	1	96	98	60-118	2
Chrysene	ug/L (ppb)	1	98	98	66-125	0
Benzo(b)fluoranthene	ug/L (ppb)	1	95	98	55-135	3
Benzo(k)fluoranthene	ug/L (ppb)	1	100	102	62-125	2
Benzo(a)pyrene	ug/L (ppb)	1	94	96	58-127	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	92	86	36-142	7
Dibenz(a,h)anthracene	ug/L (ppb)	1	90	76	37-133	17
Benzo(g,h,i)perylene	ug/L (ppb)	1	88	79	34-135	11

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

### **QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	40	41	10-84	2
Bis(2-chloroethyl) ether	ug/L (ppb)	10	99	102	52-113	3
2-Chlorophenol	ug/L (ppb)	10	95	98	50-110	3
1,3-Dichlorobenzene	ug/L (ppb)	10	94	94	45-109	0
1,4-Dichlorobenzene	ug/L (ppb)	10	93	93	44-118	0
1,2-Dichlorobenzene	ug/L (ppb)	10	94	94	46-116	0
Benzyl alcohol	ug/L (ppb)	10	85	87	42-100	2
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	103	107	51-124	4
2-Methylphenol	ug/L (ppb)	10	83	87	38-100	5
Hexachloroethane	ug/L (ppb)	10	95	95	42-117	0
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	96	102	48-124	6
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	76	80	40-105	5
Nitrobenzene	ug/L (ppb)	10	98	100	50-118	2
Isophorone	ug/L (ppb)	10	106	107	55-116	1
2-Nitrophenol	ug/L (ppb)	10	104	107	42-127	3
2,4-Dimethylphenol	ug/L (ppb)	10	87	89	11-135	2
Benzoic acid	ug/L (ppb)	65	34	37	10-110	8
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	98	100	55-115	2
2,4-Dichlorophenol	ug/L (ppb)	10	103	105	55-113	2
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	94	50-109	3
Hexachlorobutadiene	ug/L (ppb)	10	95	92	50-109	3
4-Chloroaniline	ug/L (ppb)	20	107	105	30-109	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	110	107	54-114	3
2-Methylnaphthalene	ug/L (ppb)	10	100	100	53-113	0
1-Methylnaphthalene	ug/L (ppb)	10	100	99	70-130	1
Hexachlorocyclopentadiene	ug/L (ppb)	10	72	85	10-121	17
2,4,6-Trichlorophenol	ug/L (ppb)	10	101	104	46-114	3
2,4,5-Trichlorophenol	ug/L (ppb)	10	103	107	57-122	4
2-Chloronaphthalene	ug/L (ppb)	10	92	96	52-112	4
2-Nitroaniline	ug/L (ppb)	10	120	119	47-128	1
Dimethyl phthalate	ug/L (ppb)	10	109	105	55-116	4
2,6-Dinitrotoluene	ug/L (ppb)	10	120	115	49-126	4
3-Nitroaniline	ug/L (ppb)	20	124	122	21-125	2
2,4-Dinitrophenol	ug/L (ppb)	10	118	119	29-130	1
Dibenzofuran	ug/L (ppb)	10	102	102	53-113	0
2,4-Dinitrotoluene	ug/L (ppb)	10	124	120	48-129	3
4-Nitrophenol	ug/L (ppb)	10	57	56	10-80	2
Diethyl phthalate	ug/L (ppb)	10	112	108	55-116	4
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	106	103	52-115	3
N-Nitrosodiphenylamine	ug/L (ppb)	10	101	101	51-112	0
4-Nitroaniline	ug/L (ppb)	20	123 vo	124 vo	42-115	1
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	107	108	40-128	1
4-Bromophenyl phenyl ether	ug/L (ppb)	10	97	97	53-114	0
Hexachlorobenzene	ug/L (ppb)	10	93	93	54-115	0
Pentachlorophenol	ug/L (ppb)	10	103	105	49-114	2
Carbazole	ug/L (ppb)	10	112	109	54-115	3
Di-n-butyl phthalate	ug/L (ppb)	10	113	113	54-115	0
Benzyl butyl phthalate	ug/L (ppb)	10	107	107	53-122	0
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	104	111	54-122	7
Di-n-octyl phthalate	ug/L (ppb)	10	92	97	50-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/31/18

Project: Snopac 150054, F&BI 801427

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	81	77	37-136	5
Aroclor 1260	ug/L (ppb)	2.5	80	90	41-135	12

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

CCAH107

**SAMPLE CHAIN OF CUSTODY** #E 01-31-18

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Reportee

Company A S P E C T

Address 401 2nd Ave. S.

City, State, ZIP Seattle, WA 98101  
Phone (206) 247-4746 Email karen@vassar.edu

SAMPLE FERS (Signature)		Page #
<u>WJG</u>		<u>1</u>
PROJECT NAME	PO #	TURNAROUND TIME
<u>Snapac</u>	<u>150054</u>	<input checked="" type="checkbox"/> Standard Turnaround <input type="checkbox"/> RUSH Rush charges authorized by: _____
REMARKS	INVOICE TO	SAMPLE DISPOSAL
<u>Dissolved meths fell from</u>		<input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other _____

Samples received at 3°C

**Friedman & Bruya, Inc.**  
3012 16<sup>th</sup> Avenue West  
Seattle, WA 98119-2029  
*Ph. (206) 285-8282*

Ph. (206) 285-8282

# 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.

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[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 8, 2018

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 29, 2018 from the Snopac PO 150054, F&BI 801398 project. There are 40 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0208R.DOC

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on January 29, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac PO 150054, F&BI 801398 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
801398 -01	MW12-20180128
801398 -02	MW05-20180128
801398 -03	MW04-20180128

The 200.8 total and dissolved arsenic and selenium calibration standards as well as the internal standards failed the acceptance criteria for samples MW05-20180128 and MW04-20180128 due to matrix interferences. The matrix interferences were likely due to brackish water. The data were flagged accordingly. The samples were diluted and reanalyzed.

The 200.8 silver calibration standard did not pass the acceptance criteria in sample MW12-20180128. The data were flagged accordingly. The sample was reanalyzed and silver was reported without a qualifier.

4-Nitroaniline in the 8270D laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

Date Extracted: 01/30/18

Date Analyzed: 01/30/18

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 41-152)
MW12-20180128 801398-01	110 x	290	101
MW05-20180128 801398-02	<50	<250	103
MW04-20180128 801398-03	<50	<250	114
Method Blank 08-245 MB2	<50	<250	94

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-01
Date Analyzed:	02/07/18 17:09:22	Data File:	801398-01.087
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.19
Barium	5.50
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	3.27
Selenium	<1
Silver	<1 ca
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-01
Date Analyzed:	02/01/18	Data File:	801398-01.113
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Concentration  
ug/L (ppb)

Analyte: Silver <1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-02
Date Analyzed:	02/01/18	Data File:	801398-02.114
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.21 J ca
Barium	97.4 J
Cadmium	<1 J
Chromium	12.0 J
Copper	6.62 J
Lead	<1 J
Mercury	<1 J
Nickel	110 J
Selenium	<125 J ca
Silver	<1 J
Zinc	100 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-02 x10
Date Analyzed:	02/02/18	Data File:	801398-02 x10.106
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	98.8
Cadmium	<10
Chromium	14.8
Copper	<50
Lead	<10
Mercury	<10
Nickel	133
Selenium	28.2
Silver	<10
Zinc	150

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-03
Date Analyzed:	02/01/18	Data File:	801398-03.115
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.2 J ca
Barium	28.7 J
Cadmium	<1 J
Chromium	20.5 J
Copper	17.8 J
Lead	1.87 J
Mercury	<1 J
Nickel	16.2 J
Selenium	<10 J ca
Silver	<1 J
Zinc	10.4 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-03 x10
Date Analyzed:	02/02/18	Data File:	801398-03 x10.107
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.3
Barium	26.7
Cadmium	<10
Chromium	20.9
Copper	<50
Lead	<10
Mercury	<10
Nickel	17.7
Selenium	14.5
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	I8-078 mb
Date Analyzed:	02/02/18	Data File:	I8-078 mb.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-01 rr
Date Analyzed:	02/07/18 17:32:52	Data File:	801398-01 rr.092
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.42
Barium	6.74
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	3.86
Selenium	<1
Silver	<1 ca
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-01
Date Analyzed:	02/01/18	Data File:	801398-01.137
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Silver	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-02
Date Analyzed:	02/01/18	Data File:	801398-02.138
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.94 J ca
Barium	89.8 J
Cadmium	<1 J
Chromium	21.3 J
Copper	<5 J
Lead	<1 J
Mercury	<1 J
Nickel	100 J
Selenium	<55 J ca
Silver	<1 J
Zinc	75.0 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-02 x10
Date Analyzed:	02/02/18	Data File:	801398-02 x10.120
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	86.4
Cadmium	<10
Chromium	22.9
Copper	<50
Lead	<10
Mercury	<10
Nickel	115
Selenium	27.3
Silver	<10
Zinc	107

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-03
Date Analyzed:	02/01/18	Data File:	801398-03.139
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.7 J ca
Barium	18.5 J
Cadmium	<1 J
Chromium	1.52
Copper	7.98
Lead	<1
Mercury	<1
Nickel	16.3
Selenium	<10 J ca
Silver	<1 J
Zinc	5.49

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	801398-03 x10
Date Analyzed:	02/02/18	Data File:	801398-03 x10.121
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	17.8
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	17.4
Selenium	15.3
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	02/01/18	Lab ID:	I8-077 mb
Date Analyzed:	02/02/18	Data File:	I8-077 mb.043
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-01
Date Analyzed:	01/31/18	Data File:	013109.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-02
Date Analyzed:	01/31/18	Data File:	013110.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-03
Date Analyzed:	01/31/18	Data File:	013111.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	08-0213 mb
Date Analyzed:	01/31/18	Data File:	013108.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW12-20180128  
 Date Received: 01/29/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801398  
 Lab ID: 801398-01  
 Data File: 020107.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	59	32	162
Phenol-d6	41	10	170
Nitrobenzene-d5	109	50	150
2-Fluorobiphenyl	101	43	158
2,4,6-Tribromophenol	113	43	146
Terphenyl-d14	104	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW05-20180128  
 Date Received: 01/29/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801398  
 Lab ID: 801398-02  
 Data File: 020108.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	69	32	162
Phenol-d6	48	10	170
Nitrobenzene-d5	101	50	150
2-Fluorobiphenyl	95	43	158
2,4,6-Tribromophenol	111	43	146
Terphenyl-d14	98	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW04-20180128  
 Date Received: 01/29/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801398  
 Lab ID: 801398-03  
 Data File: 020109.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	83	32	162
Phenol-d6	56	10	170
Nitrobenzene-d5	106	50	150
2-Fluorobiphenyl	100	43	158
2,4,6-Tribromophenol	111	43	146
Terphenyl-d14	113	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: Method Blank  
 Date Received: Not Applicable  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801398  
 Lab ID: 08-257 mb  
 Data File: 020106.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	63	32	162
Phenol-d6	37	10	170
Nitrobenzene-d5	104	50	150
2-Fluorobiphenyl	100	43	158
2,4,6-Tribromophenol	87	43	146
Terphenyl-d14	100	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-01
Date Analyzed:	02/01/18	Data File:	020130.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90	31	160
Benzo(a)anthracene-d12	97	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-02
Date Analyzed:	02/01/18	Data File:	020131.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	31	160
Benzo(a)anthracene-d12	98	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-03
Date Analyzed:	02/01/18	Data File:	020132.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	88	31	160
Benzo(a)anthracene-d12	97	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	08-256 mb
Date Analyzed:	02/01/18	Data File:	020129.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	31	160
Benzo(a)anthracene-d12	98	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW12-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-01
Date Analyzed:	02/01/18	Data File:	020118.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	64	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW05-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-02
Date Analyzed:	02/01/18	Data File:	020119.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	73	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW04-20180128	Client:	Aspect Consulting, LLC
Date Received:	01/29/18	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	801398-03
Date Analyzed:	02/01/18	Data File:	020120.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	73	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801398
Date Extracted:	01/31/18	Lab ID:	08-261 mb
Date Analyzed:	02/01/18	Data File:	020108.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	112	120	63-142	7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 801405-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	112	108	70-130	4
Barium	ug/L (ppb)	50	14.5	109	103	70-130	6
Cadmium	ug/L (ppb)	5	<10	107	103	70-130	4
Chromium	ug/L (ppb)	20	<10	101	96	70-130	5
Copper	ug/L (ppb)	20	<50	97	92	70-130	5
Lead	ug/L (ppb)	10	<10	94	89	70-130	5
Mercury	ug/L (ppb)	5	<10	79	75	70-130	5
Nickel	ug/L (ppb)	20	<10	98	92	70-130	6
Selenium	ug/L (ppb)	5	<10	97	95	70-130	2
Silver	ug/L (ppb)	5	<10	93	86	70-130	8
Zinc	ug/L (ppb)	50	<50	98	94	70-130	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	106	85-115
Barium	ug/L (ppb)	50	106	85-115
Cadmium	ug/L (ppb)	5	107	85-115
Chromium	ug/L (ppb)	20	101	85-115
Copper	ug/L (ppb)	20	102	85-115
Lead	ug/L (ppb)	10	101	85-115
Mercury	ug/L (ppb)	5	94	85-115
Nickel	ug/L (ppb)	20	101	85-115
Selenium	ug/L (ppb)	5	100	85-115
Silver	ug/L (ppb)	5	103	85-115
Zinc	ug/L (ppb)	50	102	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 801430-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	3.22	109	110	70-130	1
Barium	ug/L (ppb)	50	31.5	106	108	70-130	2
Cadmium	ug/L (ppb)	5	<1	107	106	70-130	1
Chromium	ug/L (ppb)	20	1.05	101	100	70-130	1
Copper	ug/L (ppb)	20	5.39	99	98	70-130	1
Lead	ug/L (ppb)	10	1.68	94	94	70-130	0
Mercury	ug/L (ppb)	5	<1	93	94	70-130	1
Nickel	ug/L (ppb)	20	2.03	99	99	70-130	0
Selenium	ug/L (ppb)	5	<1	104	106	70-130	2
Silver	ug/L (ppb)	5	<1	100	99	70-130	1
Zinc	ug/L (ppb)	50	12.8	103	101	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	108	85-115
Barium	ug/L (ppb)	50	102	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	94	85-115
Copper	ug/L (ppb)	20	101	85-115
Lead	ug/L (ppb)	10	97	85-115
Mercury	ug/L (ppb)	5	96	85-115
Nickel	ug/L (ppb)	20	99	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	100	85-115
Zinc	ug/L (ppb)	50	103	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

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

Laboratory Code: 801398-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Hexane	ug/L (ppb)	50	<1	97	52-150
Benzene	ug/L (ppb)	50	<0.35	99	76-125
Toluene	ug/L (ppb)	50	<1	96	76-122
Ethylbenzene	ug/L (ppb)	50	<1	96	69-135
m,p-Xylene	ug/L (ppb)	100	<2	96	69-135
o-Xylene	ug/L (ppb)	50	<1	95	60-140

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Hexane	ug/L (ppb)	50	110	108	57-137	2
Benzene	ug/L (ppb)	50	103	104	69-134	1
Toluene	ug/L (ppb)	50	100	99	72-122	1
Ethylbenzene	ug/L (ppb)	50	100	101	77-124	1
m,p-Xylene	ug/L (ppb)	100	101	101	83-125	0
o-Xylene	ug/L (ppb)	50	99	100	81-121	1

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	40	41	10-84	2
Bis(2-chloroethyl) ether	ug/L (ppb)	10	99	102	52-113	3
2-Chlorophenol	ug/L (ppb)	10	95	98	50-110	3
1,3-Dichlorobenzene	ug/L (ppb)	10	94	94	45-109	0
1,4-Dichlorobenzene	ug/L (ppb)	10	93	93	44-118	0
1,2-Dichlorobenzene	ug/L (ppb)	10	94	94	46-116	0
Benzyl alcohol	ug/L (ppb)	10	85	87	42-100	2
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	103	107	51-124	4
2-Methylphenol	ug/L (ppb)	10	83	87	38-100	5
Hexachloroethane	ug/L (ppb)	10	95	95	42-117	0
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	96	102	48-124	6
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	76	80	40-105	5
Nitrobenzene	ug/L (ppb)	10	98	100	50-118	2
Isophorone	ug/L (ppb)	10	106	107	55-116	1
2-Nitrophenol	ug/L (ppb)	10	104	107	42-127	3
2,4-Dimethylphenol	ug/L (ppb)	10	87	89	11-135	2
Benzoic acid	ug/L (ppb)	65	34	37	10-110	8
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	98	100	55-115	2
2,4-Dichlorophenol	ug/L (ppb)	10	103	105	55-113	2
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	94	50-109	3
Hexachlorobutadiene	ug/L (ppb)	10	95	92	50-109	3
4-Chloroaniline	ug/L (ppb)	20	107	105	30-109	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	110	107	54-114	3
2-Methylnaphthalene	ug/L (ppb)	10	100	100	53-113	0
1-Methylnaphthalene	ug/L (ppb)	10	100	99	70-130	1
Hexachlorocyclopentadiene	ug/L (ppb)	10	72	85	10-121	17
2,4,6-Trichlorophenol	ug/L (ppb)	10	101	104	46-114	3
2,4,5-Trichlorophenol	ug/L (ppb)	10	103	107	57-122	4
2-Chloronaphthalene	ug/L (ppb)	10	92	96	52-112	4
2-Nitroaniline	ug/L (ppb)	10	120	119	47-128	1
Dimethyl phthalate	ug/L (ppb)	10	109	105	55-116	4
2,6-Dinitrotoluene	ug/L (ppb)	10	120	115	49-126	4
3-Nitroaniline	ug/L (ppb)	20	124	122	21-125	2
2,4-Dinitrophenol	ug/L (ppb)	10	118	119	29-130	1
Dibenzofuran	ug/L (ppb)	10	102	102	53-113	0
2,4-Dinitrotoluene	ug/L (ppb)	10	124	120	48-129	3
4-Nitrophenol	ug/L (ppb)	10	57	56	10-80	2
Diethyl phthalate	ug/L (ppb)	10	112	108	55-116	4
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	106	103	52-115	3
N-Nitrosodiphenylamine	ug/L (ppb)	10	101	101	51-112	0
4-Nitroaniline	ug/L (ppb)	20	123 vo	124 vo	42-115	1
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	107	108	40-128	1
4-Bromophenyl phenyl ether	ug/L (ppb)	10	97	97	53-114	0
Hexachlorobenzene	ug/L (ppb)	10	93	93	54-115	0
Pentachlorophenol	ug/L (ppb)	10	103	105	49-114	2
Carbazole	ug/L (ppb)	10	112	109	54-115	3
Di-n-butyl phthalate	ug/L (ppb)	10	113	113	54-115	0
Benzyl butyl phthalate	ug/L (ppb)	10	107	107	53-122	0
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	104	111	54-122	7
Di-n-octyl phthalate	ug/L (ppb)	10	92	97	50-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	92	92	67-116	0
Acenaphthylene	ug/L (ppb)	1	91	92	65-119	1
Acenaphthene	ug/L (ppb)	1	91	91	66-118	0
Fluorene	ug/L (ppb)	1	95	95	64-125	0
Phenanthrene	ug/L (ppb)	1	92	93	67-120	1
Anthracene	ug/L (ppb)	1	92	95	65-122	3
Fluoranthene	ug/L (ppb)	1	95	96	65-127	1
Pyrene	ug/L (ppb)	1	93	95	62-130	2
Benz(a)anthracene	ug/L (ppb)	1	96	98	60-118	2
Chrysene	ug/L (ppb)	1	98	98	66-125	0
Benzo(b)fluoranthene	ug/L (ppb)	1	95	98	55-135	3
Benzo(k)fluoranthene	ug/L (ppb)	1	100	102	62-125	2
Benzo(a)pyrene	ug/L (ppb)	1	94	96	58-127	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	92	86	36-142	7
Dibenz(a,h)anthracene	ug/L (ppb)	1	90	76	37-133	17
Benzo(g,h,i)perylene	ug/L (ppb)	1	88	79	34-135	11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/29/18

Project: Snopac PO 150054, F&BI 801398

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	81	77	37-136	5
Aroclor 1260	ug/L (ppb)	2.5	80	90	41-135	12

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

801398

Report To [REDACTED] CIVS; Longley

Company Asper Consulting

Address 401 2nd Ave S.

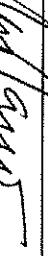
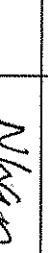
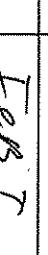
Other States TIP Settle W

City, State, Zip \_\_\_\_\_  
Phone 301-817-4444 Email [YDraNewPoster@AOL.com](mailto:YDraNewPoster@AOL.com)

## SAMPLE CHAIN OF CUSTODY

ME 01/29/18

SAMPLES (signature) <u>Matthew Vonder Ahe</u>		Page # of
PROJECT NAME <u>Sno pac</u>	PO # <u>15005U</u>	TURNAROUND TIME
		<input checked="" type="checkbox"/> Standard Turnaround <input type="checkbox"/> RUSH Rush charges authorized by:
REMARKS <u>Discarded metals were field filtered. Winter they can may be badish.</u>		SAMPLE DISPOSAL <input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	M. J. Bradley	Aspect	12/9/18	9:02
Received by: 	M. J. Bradley	Bradley R. & S. Inc.	12/9/18	1:05pm
Relinquished by: 	Nhan Pham	Feist	1/29/18	1:55
Received by: 	M. J. Bradley			

# 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.

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[www.friedmanandbruya.com](http://www.friedmanandbruya.com)

February 8, 2018

Kirsi Longley, Project Manager  
Aspect Consulting, LLC  
401 2<sup>nd</sup> Ave S, Suite 201  
Seattle, WA 98104

Dear Ms Longley:

Included are the results from the testing of material submitted on January 30, 2018 from the Snopac PO 150054, F&BI 801405 project. There are 49 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: [data@aspectconsulting.com](mailto:data@aspectconsulting.com)  
ASP0208R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 30, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Snopac PO 150054, F&BI 801405 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
801405 -01	MW08-20180129
801405 -02	MW06-20180129
801405 -03	MW11-20180129
801405 -04	MW01-20180129

The 200.8 total and dissolved arsenic and selenium calibration standards as well as the internal standards failed the acceptance criteria for samples MW11-20180129 and MW01-20180129 due to matrix interferences. The matrix interferences were likely due to brackish water. The data were flagged accordingly. The samples were diluted and reanalyzed.

The 200.8 silver calibration standard did not pass the acceptance criteria in samples MW08-20180129 and MW06-20180129. The data were flagged accordingly. The samples were reanalyzed and silver was reported without a qualifier.

4-Nitroaniline in the 8270D laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

Date Extracted: 02/01/18

Date Analyzed: 02/01/18

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW08-20180129 801405-01	100 x	<250	101
MW06-20180129 801405-02	<50	<250	108
MW11-20180129 801405-03 1/1.2	<60	<300	104
MW01-20180129 801405-04	<50	<250	98
Method Blank 08-265 MB	<50	<250	99

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-01
Date Analyzed:	02/07/18	Data File:	801405-01.090
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.35
Barium	16.2
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	2.17
Selenium	3.44
Silver	<1 ca
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-01
Date Analyzed:	02/01/18	Data File:	801405-01.107
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Concentration  
ug/L (ppb)

Analyte: Silver <1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-02
Date Analyzed:	02/07/18	Data File:	801405-02.091
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	21.8
Barium	35.4
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	2.76
Selenium	1.78
Silver	<1 ca
Zinc	25.9

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-02
Date Analyzed:	02/01/18	Data File:	801405-02.110
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Concentration  
ug/L (ppb)

Analyte: Silver <1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-03
Date Analyzed:	02/01/18	Data File:	801405-03.111
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	7.84 J ca
Barium	7.33 J
Cadmium	<1 J
Chromium	1.23 J
Copper	9.70 J
Lead	<1 J
Mercury	<1 J
Nickel	3.12 J
Selenium	<95 J ca
Silver	<1 J
Zinc	11.5 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-03 x10
Date Analyzed:	02/02/18	Data File:	801405-03 x10.089
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	<10
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	21.7
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-04
Date Analyzed:	02/01/18	Data File:	801405-04.112
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.68 J ca
Barium	13.8 J
Cadmium	<1J
Chromium	1.90 J
Copper	<5 J
Lead	<1 J
Mercury	<1 J
Nickel	2.64 J
Selenium	<80 J ca
Silver	<1J
Zinc	12.4 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-04 x10
Date Analyzed:	02/02/18	Data File:	801405-04 x10.104
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	13.0
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	22.9
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	I8-078 mb
Date Analyzed:	02/02/18	Data File:	I8-078 mb.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-01
Date Analyzed:	02/07/18	Data File:	801405-01.107
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.25
Barium	15.0
Cadmium	<1
Chromium	1.08
Copper	<5
Lead	<1
Mercury	<1
Nickel	1.94
Selenium	2.98
Silver	<1 ca
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-01
Date Analyzed:	02/01/18	Data File:	801405-01.145
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Silver	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-02
Date Analyzed:	02/07/18	Data File:	801405-02108
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	25.1
Barium	33.2
Cadmium	<1
Chromium	1.01
Copper	11.6
Lead	<1
Mercury	<1
Nickel	2.53
Selenium	1.73
Silver	<1 ca
Zinc	34.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-02
Date Analyzed:	02/01/18	Data File:	801405-02.146
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Silver	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-02 x10
Date Analyzed:	02/02/18	Data File:	801405-02 x10.131
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	30.6
Barium	29.2
Cadmium	<10
Chromium	<10
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	<10
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-03
Date Analyzed:	02/01/18	Data File:	801405-03.152
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.19 J ca
Barium	7.63 J
Cadmium	<1 J
Chromium	9.86 J
Copper	14.1 J
Lead	<1 J
Mercury	<1 J
Nickel	3.52 J
Selenium	<25 J ca
Silver	<1 J
Zinc	12.7 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-03 x10
Date Analyzed:	02/02/18	Data File:	801405-03 x10.132
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	<10
Cadmium	<10
Chromium	10.3
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	23.1
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-04
Date Analyzed:	02/01/18	Data File:	801405-04.153
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.2 J ca
Barium	16.3 J
Cadmium	<1 J
Chromium	35.0 J
Copper	14.8 J
Lead	2.73 J
Mercury	<1 J
Nickel	3.39 J
Selenium	<65 J ca
Silver	<1 J
Zinc	15.9 J

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	801405-04 x10
Date Analyzed:	02/02/18	Data File:	801405-04 x10.133
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<10
Barium	15.7
Cadmium	<10
Chromium	35.9
Copper	<50
Lead	<10
Mercury	<10
Nickel	<10
Selenium	26.1
Silver	<10
Zinc	<50

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	02/01/18	Lab ID:	I8-077 mb
Date Analyzed:	02/02/18	Data File:	I8-077 mb.043
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-01
Date Analyzed:	01/31/18	Data File:	013122.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	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 ug/L (ppb)
Hexane	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-02
Date Analyzed:	01/31/18	Data File:	013123.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-03
Date Analyzed:	01/31/18	Data File:	013124.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-04
Date Analyzed:	01/31/18	Data File:	013125.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	99	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	08-0213 mb
Date Analyzed:	01/31/18	Data File:	013108.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

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

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-01
Date Analyzed:	02/02/18	Data File:	020212.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	31	160
Benzo(a)anthracene-d12	95	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-02
Date Analyzed:	02/02/18	Data File:	020213.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	88	31	160
Benzo(a)anthracene-d12	101	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-03
Date Analyzed:	02/02/18	Data File:	020214.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	31	160
Benzo(a)anthracene-d12	95	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-04
Date Analyzed:	02/02/18	Data File:	020215.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96	31	160
Benzo(a)anthracene-d12	103	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	08-256 mb
Date Analyzed:	02/01/18	Data File:	020129.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	31	160
Benzo(a)anthracene-d12	98	25	165

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Naphthalene	<0.03
Acenaphthylene	<0.03
Acenaphthene	<0.03
Fluorene	<0.03
Phenanthrene	<0.03
Anthracene	<0.03
Fluoranthene	<0.03
Pyrene	<0.03
Benz(a)anthracene	<0.03
Chrysene	<0.03
Benzo(a)pyrene	<0.03
Benzo(b)fluoranthene	<0.03
Benzo(k)fluoranthene	<0.03
Indeno(1,2,3-cd)pyrene	<0.03
Dibenz(a,h)anthracene	<0.03
Benzo(g,h,i)perylene	<0.03

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW08-20180129  
 Date Received: 01/30/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801405  
 Lab ID: 801405-01  
 Data File: 020111.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66	32	162
Phenol-d6	41	10	170
Nitrobenzene-d5	102	50	150
2-Fluorobiphenyl	94	43	158
2,4,6-Tribromophenol	105	43	146
Terphenyl-d14	100	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW06-20180129  
 Date Received: 01/30/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801405  
 Lab ID: 801405-02  
 Data File: 020112.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86	32	162
Phenol-d6	58	10	170
Nitrobenzene-d5	107	50	150
2-Fluorobiphenyl	103	43	158
2,4,6-Tribromophenol	111	43	146
Terphenyl-d14	114	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW11-20180129  
 Date Received: 01/30/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801405  
 Lab ID: 801405-03  
 Data File: 020113.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	32	162
Phenol-d6	49	10	170
Nitrobenzene-d5	103	50	150
2-Fluorobiphenyl	97	43	158
2,4,6-Tribromophenol	97	43	146
Terphenyl-d14	99	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: MW01-20180129  
 Date Received: 01/30/18  
 Date Extracted: 01/31/18  
 Date Analyzed: 02/01/18  
 Matrix: Water  
 Units: ug/L (ppb)

Client: Aspect Consulting, LLC  
 Project: Snopac PO 150054, F&BI 801405  
 Lab ID: 801405-04  
 Data File: 020114.D  
 Instrument: GCMS8  
 Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	68	32	162
Phenol-d6	41	10	170
Nitrobenzene-d5	108	50	150
2-Fluorobiphenyl	103	43	158
2,4,6-Tribromophenol	105	43	146
Terphenyl-d14	102	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	08-257 mb
Date Analyzed:	02/01/18	Data File:	020106.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	63	32	162
Phenol-d6	37	10	170
Nitrobenzene-d5	104	50	150
2-Fluorobiphenyl	100	43	158
2,4,6-Tribromophenol	87	43	146
Terphenyl-d14	100	39	168

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<2	Hexachlorocyclopentadiene	<0.6
Bis(2-chloroethyl) ether	<0.2	2,4,6-Trichlorophenol	<2
2-Chlorophenol	<2	2,4,5-Trichlorophenol	<2
1,3-Dichlorobenzene	<0.2	2-Chloronaphthalene	<0.2
1,4-Dichlorobenzene	<0.2	2-Nitroaniline	<1
1,2-Dichlorobenzene	<0.2	Dimethyl phthalate	<2
Benzyl alcohol	<2	2,6-Dinitrotoluene	<1
2,2'-Oxybis(1-chloropropane)	<0.2	3-Nitroaniline	<20
2-Methylphenol	<2	2,4-Dinitrophenol	<6
Hexachloroethane	<0.2	Dibenzofuran	<0.2
N-Nitroso-di-n-propylamine	<0.2	2,4-Dinitrotoluene	<1
3-Methylphenol + 4-Methylphenol	<4	4-Nitrophenol	<6
Nitrobenzene	<0.2	Diethyl phthalate	<2
Isophorone	<0.2	4-Chlorophenyl phenyl ether	<0.2
2-Nitrophenol	<2	N-Nitrosodiphenylamine	<0.2
2,4-Dimethylphenol	<2	4-Nitroaniline	<20
Benzoic acid	<10	4,6-Dinitro-2-methylphenol	<6
Bis(2-chloroethoxy)methane	<0.2	4-Bromophenyl phenyl ether	<0.2
2,4-Dichlorophenol	<2	Hexachlorobenzene	<0.2
1,2,4-Trichlorobenzene	<0.2	Pentachlorophenol	<2
Hexachlorobutadiene	<0.2	Carbazole	<2
4-Chloroaniline	<20	Di-n-butyl phthalate	<2
4-Chloro-3-methylphenol	<2	Benzyl butyl phthalate	<2
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<3.2
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW08-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-01
Date Analyzed:	02/01/18	Data File:	020121.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	72	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW06-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-02
Date Analyzed:	02/01/18	Data File:	020122.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	77	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW11-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-03
Date Analyzed:	02/01/18	Data File:	020123.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	72	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	MW01-20180129	Client:	Aspect Consulting, LLC
Date Received:	01/30/18	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	801405-04
Date Analyzed:	02/01/18	Data File:	020124.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Snopac PO 150054, F&BI 801405
Date Extracted:	01/31/18	Lab ID:	08-261 mb
Date Analyzed:	02/01/18	Data File:	020108.D
Matrix:	Water	Instrument:	GC7
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	63	24	127

Compounds:	Concentration ug/L (ppb)
------------	-----------------------------

Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	104	58-134	8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 200.8**

Laboratory Code: 801405-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	112	108	70-130	4
Barium	ug/L (ppb)	50	14.5	109	103	70-130	6
Cadmium	ug/L (ppb)	5	<10	107	103	70-130	4
Chromium	ug/L (ppb)	20	<10	101	96	70-130	5
Copper	ug/L (ppb)	20	<50	97	92	70-130	5
Lead	ug/L (ppb)	10	<10	94	89	70-130	5
Mercury	ug/L (ppb)	5	<10	79	75	70-130	5
Nickel	ug/L (ppb)	20	<10	98	92	70-130	6
Selenium	ug/L (ppb)	5	<10	97	95	70-130	2
Silver	ug/L (ppb)	5	<10	93	86	70-130	8
Zinc	ug/L (ppb)	50	<50	98	94	70-130	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	106	85-115
Barium	ug/L (ppb)	50	106	85-115
Cadmium	ug/L (ppb)	5	107	85-115
Chromium	ug/L (ppb)	20	101	85-115
Copper	ug/L (ppb)	20	102	85-115
Lead	ug/L (ppb)	10	101	85-115
Mercury	ug/L (ppb)	5	94	85-115
Nickel	ug/L (ppb)	20	101	85-115
Selenium	ug/L (ppb)	5	100	85-115
Silver	ug/L (ppb)	5	103	85-115
Zinc	ug/L (ppb)	50	102	85-115

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 801430-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	3.22	109	110	70-130	1
Barium	ug/L (ppb)	50	31.5	106	108	70-130	2
Cadmium	ug/L (ppb)	5	<1	107	106	70-130	1
Chromium	ug/L (ppb)	20	1.05	101	100	70-130	1
Copper	ug/L (ppb)	20	5.39	99	98	70-130	1
Lead	ug/L (ppb)	10	1.68	94	94	70-130	0
Mercury	ug/L (ppb)	5	<1	93	94	70-130	1
Nickel	ug/L (ppb)	20	2.03	99	99	70-130	0
Selenium	ug/L (ppb)	5	<1	104	106	70-130	2
Silver	ug/L (ppb)	5	<1	100	99	70-130	1
Zinc	ug/L (ppb)	50	12.8	103	101	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	108	85-115
Barium	ug/L (ppb)	50	102	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	94	85-115
Copper	ug/L (ppb)	20	101	85-115
Lead	ug/L (ppb)	10	97	85-115
Mercury	ug/L (ppb)	5	96	85-115
Nickel	ug/L (ppb)	20	99	85-115
Selenium	ug/L (ppb)	5	99	85-115
Silver	ug/L (ppb)	5	100	85-115
Zinc	ug/L (ppb)	50	103	85-115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

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

Laboratory Code: 801398-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Hexane	ug/L (ppb)	50	<1	97	52-150
Benzene	ug/L (ppb)	50	<0.35	99	76-125
Toluene	ug/L (ppb)	50	<1	96	76-122
Ethylbenzene	ug/L (ppb)	50	<1	96	69-135
m,p-Xylene	ug/L (ppb)	100	<2	96	69-135
o-Xylene	ug/L (ppb)	50	<1	95	60-140

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Hexane	ug/L (ppb)	50	110	108	57-137	2
Benzene	ug/L (ppb)	50	103	104	69-134	1
Toluene	ug/L (ppb)	50	100	99	72-122	1
Ethylbenzene	ug/L (ppb)	50	100	101	77-124	1
m,p-Xylene	ug/L (ppb)	100	101	101	83-125	0
o-Xylene	ug/L (ppb)	50	99	100	81-121	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	92	92	67-116	0
Acenaphthylene	ug/L (ppb)	1	91	92	65-119	1
Acenaphthene	ug/L (ppb)	1	91	91	66-118	0
Fluorene	ug/L (ppb)	1	95	95	64-125	0
Phenanthrene	ug/L (ppb)	1	92	93	67-120	1
Anthracene	ug/L (ppb)	1	92	95	65-122	3
Fluoranthene	ug/L (ppb)	1	95	96	65-127	1
Pyrene	ug/L (ppb)	1	93	95	62-130	2
Benz(a)anthracene	ug/L (ppb)	1	96	98	60-118	2
Chrysene	ug/L (ppb)	1	98	98	66-125	0
Benzo(b)fluoranthene	ug/L (ppb)	1	95	98	55-135	3
Benzo(k)fluoranthene	ug/L (ppb)	1	100	102	62-125	2
Benzo(a)pyrene	ug/L (ppb)	1	94	96	58-127	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	92	86	36-142	7
Dibenz(a,h)anthracene	ug/L (ppb)	1	90	76	37-133	17
Benzo(g,h,i)perylene	ug/L (ppb)	1	88	79	34-135	11

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Phenol	ug/L (ppb)	10	40	41	10-84	2
Bis(2-chloroethyl) ether	ug/L (ppb)	10	99	102	52-113	3
2-Chlorophenol	ug/L (ppb)	10	95	98	50-110	3
1,3-Dichlorobenzene	ug/L (ppb)	10	94	94	45-109	0
1,4-Dichlorobenzene	ug/L (ppb)	10	93	93	44-118	0
1,2-Dichlorobenzene	ug/L (ppb)	10	94	94	46-116	0
Benzyl alcohol	ug/L (ppb)	10	85	87	42-100	2
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	103	107	51-124	4
2-Methylphenol	ug/L (ppb)	10	83	87	38-100	5
Hexachloroethane	ug/L (ppb)	10	95	95	42-117	0
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	96	102	48-124	6
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	76	80	40-105	5
Nitrobenzene	ug/L (ppb)	10	98	100	50-118	2
Isophorone	ug/L (ppb)	10	106	107	55-116	1
2-Nitrophenol	ug/L (ppb)	10	104	107	42-127	3
2,4-Dimethylphenol	ug/L (ppb)	10	87	89	11-135	2
Benzoic acid	ug/L (ppb)	65	34	37	10-110	8
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	98	100	55-115	2
2,4-Dichlorophenol	ug/L (ppb)	10	103	105	55-113	2
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	94	50-109	3
Hexachlorobutadiene	ug/L (ppb)	10	95	92	50-109	3
4-Chloroaniline	ug/L (ppb)	20	107	105	30-109	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	110	107	54-114	3
2-Methylnaphthalene	ug/L (ppb)	10	100	100	53-113	0
1-Methylnaphthalene	ug/L (ppb)	10	100	99	70-130	1
Hexachlorocyclopentadiene	ug/L (ppb)	10	72	85	10-121	17
2,4,6-Trichlorophenol	ug/L (ppb)	10	101	104	46-114	3
2,4,5-Trichlorophenol	ug/L (ppb)	10	103	107	57-122	4
2-Chloronaphthalene	ug/L (ppb)	10	92	96	52-112	4
2-Nitroaniline	ug/L (ppb)	10	120	119	47-128	1
Dimethyl phthalate	ug/L (ppb)	10	109	105	55-116	4
2,6-Dinitrotoluene	ug/L (ppb)	10	120	115	49-126	4
3-Nitroaniline	ug/L (ppb)	20	124	122	21-125	2
2,4-Dinitrophenol	ug/L (ppb)	10	118	119	29-130	1
Dibenzofuran	ug/L (ppb)	10	102	102	53-113	0
2,4-Dinitrotoluene	ug/L (ppb)	10	124	120	48-129	3
4-Nitrophenol	ug/L (ppb)	10	57	56	10-80	2
Diethyl phthalate	ug/L (ppb)	10	112	108	55-116	4
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	106	103	52-115	3
N-Nitrosodiphenylamine	ug/L (ppb)	10	101	101	51-112	0
4-Nitroaniline	ug/L (ppb)	20	123 vo	124 vo	42-115	1
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	107	108	40-128	1
4-Bromophenyl phenyl ether	ug/L (ppb)	10	97	97	53-114	0
Hexachlorobenzene	ug/L (ppb)	10	93	93	54-115	0
Pentachlorophenol	ug/L (ppb)	10	103	105	49-114	2
Carbazole	ug/L (ppb)	10	112	109	54-115	3
Di-n-butyl phthalate	ug/L (ppb)	10	113	113	54-115	0
Benzyl butyl phthalate	ug/L (ppb)	10	107	107	53-122	0
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	104	111	54-122	7
Di-n-octyl phthalate	ug/L (ppb)	10	92	97	50-131	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/18

Date Received: 01/30/18

Project: Snopac PO 150054, F&BI 801405

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOL 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	81	77	37-136	5
Aroclor 1260	ug/L (ppb)	2.5	80	90	41-135	12

# FRIEDMAN & BRUYA, INC.

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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.
- 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.

S04108

Report P

### Company

RESPECT  
RESPECT

Address 401 2nd Ave S.  
City, State, ZIP Seattle, WA 98104  
Phone 2068124746 Email klongley@seattle.gov

**SAMPLE CHAIN OF CUSTODY**

SAMPLERS (*signature*)

PROJECT NAME

W.M.

Page # \_\_\_\_\_ of \_\_\_\_\_

PROJECT NAME <i>Swopac</i>		SAMPLERS (signature) <i>MJL</i>
		PO # <i>150054</i>
REMARKS Dissolved samples field filtered	INVOICE TO <i>My.com</i>	<p style="text-align: right;">Page # <u>1</u> of <u>1</u></p> <p><b>TURNAROUND TIME</b></p> <p><input checked="" type="checkbox"/> Standard Turnaround</p> <p><input type="checkbox"/> RUSH _____</p> <p>Rush charges authorized by:</p> <p><b>SAMPLE DISPOSAL</b></p> <p><input checked="" type="checkbox"/> Dispose after 30 days</p> <p><input type="checkbox"/> Archive Samples</p> <p><input type="checkbox"/> Other _____</p>

**Friedman & Bruya, Inc.**  
3012 16<sup>th</sup> Avenue West  
Seattle, WA 98119-2029  
*Ph. (206) 285-8282*

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Mrs. Lovaney	Aspect	1/30/18	845
Received by: 	Bradley Reitz	FedEx same day	1/30/18	12:00pm
Relinquished by: 	Phan	Phan	1/30/18	1320
Received by: 	Phan	Phan	1/30/18	1320

## **APPENDIX H**

### **2018 Sediment Core Logs**

## **APPENDIX H**

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### **2018 SEDIMENT CORE LOGS**

**integral**  
consulting inc.

1205 West Bay Drive NW  
Olympia, WA 98502  
(360) 705-3534

### Log of Boring: CO1

Project Name: Former Snopac Site

Project Number: CF1774

Logged by: J. Sund

Date: 2/6/18 + 2/7/18

Page 1 of

### SAMPLE INFORMATION

Sample ID	Time	Sample Type	% Recovery	SPT	Sheen	Depth (Feet)	Symbol	Soil Description (USCS group name, minor components, color, moisture, additional descriptions)
1						-1.0		0-7.0 SILT, v.dk gray (7.5YR 3/1), so ft, wet w/ gravel (subrounded), woody debris, worms present, v.lt sheen, organic sulfur odor, low-mod plasticity.
2						-2.0		
3						-3.0		
4						-4.0		
5	2/6 10:00	CO1-SD-3-5	100%	23		-5.0		24.2 asphalt debris ~2.5-3.0" diam. SHF low-mod Ø 24.6/18
6	2/7 10:00	CO1-PN-3-5	100%	23		-6.0		
7						-7.0		
8						-8.0		
9						-9.0		
10						-10		
11						-11		7.0-8.2 SILT w/ gravel + woody debris wood up to 4" length. SILT is black (10YR 2/1), v.wet, soft. Gravel subang. to subrounded
12						-12		
13						-13		8.2-11 SILT layers of brown (7.5YR 4/2) and v. dk gray (7.5YR 3/1) med. plasticity, soft.
14						-14		11-12.0 Gravelly sandy SILT vdk gray (7.5YR 3/1) gravel angular to subangular to subrounded up to 2". lt. sheen.
15								12-15 SAND (f-m) v-dk grayish brown (10YR 3/2)
								Notes

2/6 CORE 1 DTML = 24'  
0-5' 2.5' / 5.0'  
5-10' 5/5'  
10-15' 4/5'

2/7 CORE 2 DTML = 29'  
3-5' - no retd v. 2.3/3.0'  
5-8' 2.4/3.0'  
16-17' 2-3.0'

2/6 TD = 15.0' bml  
TD = 13.0' bml 2/7

Drilling Contractor: HOLT SERVICES

Location Sketch

Equipment: SONIC RIG

Sampling Equipment: Split Spoon and Shelby Tube

Start/End Time: 1416-1510 2/6 728-1000 2/7

47.55635517

Latitude: 47.55637505N | 47.5563846W

-122.33997506

Longitude: -122.33996741W | -122.33995828

CORE 2

2/6/18

CORE 1  
S-8 + 10-13

3-5'

**integral**  
consulting inc.

1205 West Bay Drive NW  
Olympia, WA 98502  
(360) 705-3534

### Log of Boring: COZ

Project Name: Former Snopac Site

Project Number: CF1774

Logged by: J. Sund

Date: 2/6/18 + 2/8/18

Page 1 of 1

### SAMPLE INFORMATION

Sample ID	Time	Sample Type	% Recovery	SPT	Sheen	Depth (Feet)	Symbol	Soil Description (USCS group name, minor components, color, moisture, additional descriptions)
						-1.0		0-2 → NO Recovery, friable material v. soft. not retained in cone when pull out of water column in
TCT Paquet						-2.0		2-5.9 SILT, v. dk gray (7.5YR 3/1) wet, v. soft to soft. shells + woody debris, red chips gravel up to 2", subrounded sl. sulfur odor. v. lt to lt sheen.
COZ-SD-3-5	1D25					-3.0		
COZ-DW-3-5	115D					-4.0		
						-5.0		5.9-8.1 Sandy GRAVEL w/ some SILT dark gray (7.5YR 3/1) to v. dk gray/brown (10YR 3/2) gravel Subangular to subrounded sl. odor + mod. Sheen.
(COZ-GTB-5-8	100S					-6.0		
(COZ-GTB-5-8	1240					-7.0		8.1-8.4 SILT, dk gray (10YR 4/1) soft, mod plasticity, some woody debris, no odor.
						-8.0		8.4-9.1 SILT, dk gray + woody debris dk gray (10YR 4/1) soft, sulfur odor in woody debris.
COZ-GTB-10-3	1111					-10		9.1-11.8 SILT, as above in 8.1-8.4 tr. subangular gravel, cobble ang. → 11.0'
						-11		11.8-14 - SAND, (f-m) v. dk gray, sh b m (10YR 3/2), no odor.
						-12		13- 13.2 SILT layer, gray (10YR 4/1)
						-13		
						-14		

### Notes

DTML 0909- 31'9"	CORE 1	CORE 2	TD=14.0' bml.
1000 31'7"	6-5	0-5	ON 2/8 - attempted 10-13' Shelby
1130 - 29'8"	5-10	5-10	w/ no success - abraded woody debris
	10-	10-	

Drilling Contractor: HOLT SERVICES

Location Sketch

Equipment: SONIC RIG

Sampling Equipment: Split Spoon and Shelby Tube

Start/End Time: 0909-1400

Latitude: 47.55622411 47.55623293

47.55623758

Longitude: -122.339903216 -122.33989446

-122.33994072

CORE 1

CORE 2

CORE 2

3-5, 5-8'

10-13 - sample discarded

**integral**  
consulting inc

1205 West Bay Drive NW  
Olympia, WA 98502  
(360) 705-3534

**Log of Boring:**

Project Name: Former Snopac Site  
Project Number: CF1774  
Logged by: J. Sund  
Date: 2/7/18

C03

Page 1 of 1

**SAMPLE INFORMATION**

Sample ID	Time	Sample Type	% Recovery	SPT	Sheen	Depth (Feet)	Symbol	Soil Description (USCS group name, minor components, color, moisture, additional descriptions)
						-1.0		
X						-2.0		
Tulalquot			1.7			-3.0		
X			3.0					
C03-GT-35	1110	/	/	/	/	-4.0		
C03-DW-3-5	1314	/	/	/	/	-5.0		
↑						-6.0		
C03-GTS-3-8	1201	/	5/2			-7.0		
C03-GTS-5-8	330	/	2 1/3			-8.0		
↓						-9.0		
						-10		
X						-11		
C03-GTS-10-13	1221	/	92			-12		
C03-GTS-10-13						-13		
						-14		
<b>Notes</b>								
<b>CORE 2</b>								<b>CORE 2</b>
①	0-5	2.4/5.0	-poor rec. wood w 5.0. -rcj.					0-5
②	0-5	3.5/5	-DTML = 25.0'					5-10 2.15/3.0
	5-10	4/5	-slough in top 1.9'					10-13 2/2 →

Drilling Contractor: HOLT SERVICES

Equipment: SONIC RIG

Sampling Equipment: Split Spoon and Shelby Tube

Start/End Time: 1020-1430

Latitude: 47.55602661 | 47.55601027 | 47.55601533

Longitude: 122.39164129 | 122.39168118 | 122.39168658

Location Sketch

CORE 1      CORE 1      CORE 2  
0-5'      5-8'      10-13'  
10-13'      3-5'